ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 18:55:04
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	722458	2
	Be	9	0.425	ug/L	0.018	4	8	1088	1
	C	13		ug/L			63994	84637	2
	Cl	37		ug/L			3532807	3796240	2
>	Sc	45		ug/L			674505	835463	3
	V	51	21.546	ug/L	0.137	0	6013	363869	3
	V-1	51	21.426	ug/L	0.155	0	387	357856	3
	Cr	52	13.749	ug/L	0.241	1	17778	218474	2
	Cr	53	13.567	ug/L	0.147	1	210	22764	3
	Mn	55	255.117	ug/L	9.327	3	314	5015491	0
	Co	59	4.493	ug/L	0.031	0	73	67859	2
>	Ge	72		ug/L			426798	449835	2
	Ni	60	12.418	ug/L	0.470	3	26	34842	4
	Ni	62	13.657	ug/L	0.294	2	48	5500	3
	Cu	63	10.909	ug/L	0.176	1	88	68751	0
	Cu	65	11.164	ug/L	0.198	1	42	31603	1
	Zn	66	37.217	ug/L	0.729	1	141	61296	1
	Zn	67	43.439	ug/L	0.835	1	21	12068	2
	Zn	68	40.380	ug/L	0.706	1	144	48150	1
	As	75	3.517	ug/L	0.133	3	220	5581	1
	As-1	75	3.522	ug/L	0.273	7	9153	15016	1
	Se	82	-0.106	ug/L	0.067	63	-1	-19	55
	Se	78	0.340	ug/L	0.550	161	9315	9960	0
	Mo	98	0.299	ug/L	0.003	0	35	1224	3
	Y	89		ug/L			271155	386473	1
	Kr	83		ug/L			529	768	6
>	In	115		ug/L			840042	857471	0
	Ag	107	0.094	ug/L	0.009	9	32	1085	9
	Cd	111	0.271	ug/L	0.030	11	72	1231	10
	Cd	114	0.123	ug/L	0.005	4	44	1356	4
	Sb	121	-0.003	ug/L	0.002	57	346	310	8
	Sb	123	-0.003	ug/L	0.003	79	257	228	12
	Ba	135	98.466	ug/L	1.560	1	17	379745	2
	Ba	137	97.767	ug/L	1.583	1	19	652216	2
>	Tb	159		ug/L			1001666	1026568	0
	Tl	205	0.074	ug/L	0.003	3	206	2602	4
	Pb	208	8.270	ug/L	0.044	0	157	340087	1
	Bi	209		ug/L			2293546	2308833	0
	Th	232	5.347	ug/L	0.086	1	1512	212665	1
	U	238	0.747	ug/L	0.006	0	29	31671	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 18:59:12
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			681751	716437	0
[	**Be**	**9**	**0.401**	ug/L	0.018	4	8	1020	5
	C	**13**		ug/L			63994	99871	1
	Cl	**37**		ug/L			3532807	3848632	4
[>	**Sc**	**45**		ug/L			674505	835805	1
[	**V**	**51**	**18.125**	ug/L	0.646	3	6013	307275	1
[	**V-1**	**51**	**17.973**	ug/L	0.759	4	387	300226	2
[	**Cr**	**52**	**19.363**	ug/L	0.103	0	17778	298907	1
[	**Cr**	**53**	**18.844**	ug/L	0.491	2	210	31522	0
[	**Mn**	**55**	**609.241**	ug/L	14.112	2	314	11988562	0
[	**Co**	**59**	**5.059**	ug/L	0.066	1	73	76435	0
[>	**Ge**	**72**		ug/L			426798	448508	2
[	**Ni**	**60**	**13.524**	ug/L	0.642	4	26	37808	3
[	**Ni**	**62**	**14.544**	ug/L	0.275	1	48	5835	0
[	**Cu**	**63**	**14.542**	ug/L	0.622	4	88	91306	1
[	**Cu**	**65**	**14.814**	ug/L	0.289	1	42	41796	1
[	**Zn**	**66**	**136.705**	ug/L	3.860	2	141	224076	2
[	**Zn**	**67**	**141.945**	ug/L	4.566	3	21	39262	2
[	**Zn**	**68**	**145.356**	ug/L	3.537	2	144	172427	2
[	**As**	**75**	**8.462**	ug/L	0.216	2	220	13063	0
[	**As-1**	**75**	**8.378**	ug/L	0.319	3	9153	22361	0
[	**Se**	**82**	**-0.117**	ug/L	0.111	95	-1	-21	88
[	**Se**	**78**	**0.084**	ug/L	0.465	555	9315	9822	0
[	**Mo**	**98**	**0.343**	ug/L	0.009	2	35	1396	2
	Y	**89**		ug/L			271155	387096	1
	Kr	**83**		ug/L			529	773	2
[>	**In**	**115**		ug/L			840042	843928	1
[	**Ag**	**107**	**0.097**	ug/L	0.003	2	32	1098	1
[	**Cd**	**111**	**2.295**	ug/L	0.054	2	72	9718	1
[	**Cd**	**114**	**2.222**	ug/L	0.039	1	44	23255	0
[	**Sb**	**121**	**0.089**	ug/L	0.005	5	346	1493	4
[	**Sb**	**123**	**0.090**	ug/L	0.004	4	257	1143	4
[	**Ba**	**135**	**260.374**	ug/L	2.176	0	17	988268	2
[	**Ba**	**137**	**260.305**	ug/L	1.896	0	19	1708848	0
[>	**Tb**	**159**		ug/L			1001666	1016988	1
[	**Tl**	**205**	**0.121**	ug/L	0.002	1	206	4049	1
[	**Pb**	**208**	**103.483**	ug/L	0.763	0	157	4213803	0
[	**Bi**	**209**		ug/L			2293546	2262406	0
[	**Th**	**232**	**4.735**	ug/L	0.042	0	1512	186728	0
[	**U**	**238**	**0.488**	ug/L	0.008	1	29	20508	1

ICP-MS Quantitative Analysis - Summary Report

Pb Zn

Sample ID: VR32 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 19:03:19
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	711201	2
	Be	9	0.171	ug/L	0.006	3	8	438	2
	C	13		ug/L			63994	84334	2
	Cl	37		ug/L			3532807	3961001	3
>	Sc	45		ug/L			674505	822497	3
	V	51	6.143	ug/L	0.151	2	6013	107327	0
	V-1	51	6.293	ug/L	0.192	3	387	103745	1
	Cr	52	15.612	ug/L	0.486	3	17778	241268	2
	Cr	53	15.845	ug/L	0.464	2	210	26117	0
	Mn	55	449.891	ug/L	4.700	1	314	8714806	3
	Co	59	3.758	ug/L	0.118	3	73	55873	0
>	Ge	72		ug/L			426798	449687	0
	Ni	60	14.836	ug/L	0.146	0	26	41604	1
	Ni	62	15.897	ug/L	0.594	3	48	6391	3
	Cu	63	9.600	ug/L	0.092	0	88	60505	1
	Cu	65	10.011	ug/L	0.238	2	42	28338	2
	Zn	66	133.932	ug/L	1.553	1	141	220179	1
	Zn	67	130.405	ug/L	2.921	2	21	36174	1
	Zn	68	136.432	ug/L	2.195	1	144	162295	1
	As	75	3.615	ug/L	0.018	0	220	5731	0
	As-1	75	3.573	ug/L	0.055	1	9153	15095	0
	Se	82	0.031	ug/L	0.040	129	-1	3	210
	Se	78	0.070	ug/L	0.195	281	9315	9845	0
	Mo	98	0.152	ug/L	0.004	2	35	639	3
	Y	89		ug/L			271155	319304	2
	Kr	83		ug/L			529	637	1
>	In	115		ug/L			840042	868798	0
	Ag	107	0.065	ug/L	0.002	3	32	773	2
	Cd	111	2.393	ug/L	0.032	1	72	10433	0
	Cd	114	2.281	ug/L	0.005	0	44	24578	0
	Sb	121	0.020	ug/L	0.002	9	346	624	4
	Sb	123	0.019	ug/L	0.002	9	257	463	3
	Ba	135	166.322	ug/L	2.496	1	17	649829	1
	Ba	137	168.529	ug/L	2.972	1	19	1138963	1
>	Tb	159		ug/L			1001666	1021920	0
	Tl	205	0.114	ug/L	0.002	1	206	3847	1
	Pb	208	102.715	ug/L	0.505	0	157	4202939	0
	Bi	209		ug/L			2293546	2335155	0
	Th	232	1.250	ug/L	0.015	1	1512	50665	0
	U	238	0.159	ug/L	0.002	1	29	6743	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 19:07:26
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	695254	0
[	Be	9	0.854	ug/L	0.021	2	8	2098	3
	C	13		ug/L			63994	131576	3
	Cl	37		ug/L			3532807	3890752	1
[>	Sc	45		ug/L			674505	874272	1
[	V	51	28.436	ug/L	0.884	3	6013	500170	4
[	V-1	51	28.675	ug/L	0.567	1	387	501071	3
[	Cr	52	73.085	ug/L	1.587	2	17778	1116388	3
[	Cr	53	72.682	ug/L	0.944	1	210	126439	1
[	Mn	55	2076.405	ug/L	33.940	1	314	42753724	2
[	Co	59	17.252	ug/L	0.278	1	73	272407	0
[>	Ge	72		ug/L			426798	438853	1
[	Ni	60	72.171	ug/L	1.178	1	26	197391	1
[	Ni	62	76.832	ug/L	0.479	0	48	29957	1
[	Cu	63	46.638	ug/L	1.266	2	88	286477	2
[	Cu	65	47.106	ug/L	1.192	2	42	129954	1
[	Zn	66	622.935	ug/L	17.773	2	141	998626	1
[	Zn	67	596.053	ug/L	7.803	1	21	161279	1
[	Zn	68	644.376	ug/L	16.164	2	144	747581	3
[	As	75	17.414	ug/L	0.394	2	220	26073	1
[	As-1	75	17.319	ug/L	0.518	2	9153	35196	1
[	Se	82	0.083	ug/L	0.111	133	-1	11	155
[	Se	78	0.530	ug/L	0.542	102	9315	9799	1
[	Mo	98	0.719	ug/L	0.020	2	35	2824	1
	Y	89		ug/L			271155	457727	0
	Kr	83		ug/L			529	856	1
[>	In	115		ug/L			840042	878162	0
[	Ag	107	0.299	ug/L	0.001	0	32	3464	0
[	Cd	111	10.706	ug/L	0.168	1	72	46909	1
[	Cd	114	10.444	ug/L	0.063	0	44	113577	0
[	Sb	121	0.162	ug/L	0.009	5	346	2549	5
[	Sb	123	0.164	ug/L	0.002	1	257	1947	1
[	Ba	135	849.071	ug/L	6.534	0	17	3353182	0
[	Ba	137	843.640	ug/L	17.054	2	19	5763468	2
[>	Tb	159		ug/L			1001666	1014559	1
[	Tl	205	0.561	ug/L	0.009	1	206	18053	1
[	Pb	208	500.833	ug/L	4.487	0	157	20344752	0
[	Bi	209		ug/L			2293546	2173022	0
[	Th	232	5.995	ug/L	0.062	1	1512	235488	2
[	U	238	0.778	ug/L	0.002	0	29	32601	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 19:12:38
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	718068	1
	Be	9	0.437	ug/L	0.005	1	8	1114	0
	C	13		ug/L			63994	110133	0
	Cl	37		ug/L			3532807	3913424	3
>	Sc	45		ug/L			674505	871177	1
	V	51	16.866	ug/L	0.353	2	6013	298672	1
	V-1	51	16.801	ug/L	0.293	1	387	292680	1
	Cr	52	13.424	ug/L	0.201	1	17778	223016	0
	Cr	53	13.307	ug/L	0.363	2	210	23284	1
	Mn	55	779.533	ug/L	24.460	3	314	15989333	2
	Co	59	4.419	ug/L	0.173	3	73	69582	2
>	Ge	72		ug/L			426798	464937	0
	Ni	60	12.240	ug/L	0.273	2	26	35488	1
	Ni	62	13.507	ug/L	0.176	1	48	5622	0
	Cu	63	14.222	ug/L	0.247	1	88	92625	1
	Cu	65	14.276	ug/L	0.064	0	42	41763	0
	Zn	66	235.187	ug/L	3.257	1	141	399604	1
	Zn	67	227.518	ug/L	4.728	2	21	65236	1
	Zn	68	235.693	ug/L	4.009	1	144	289773	1
	As	75	8.120	ug/L	0.059	0	220	13010	1
	As-1	75	8.035	ug/L	0.038	0	9153	22646	0
	Se	82	-0.003	ug/L	0.108	3591	-1	-2	715
	Se	78	0.125	ug/L	0.286	228	9315	10203	0
	Mo	98	0.339	ug/L	0.010	2	35	1429	2
	Y	89		ug/L			271155	375942	1
	Kr	83		ug/L			529	767	1
>	In	115		ug/L			840042	879760	0
	Ag	107	0.131	ug/L	0.003	2	32	1534	2
	Cd	111	3.584	ug/L	0.023	0	72	15784	0
	Cd	114	3.466	ug/L	0.031	0	44	37788	0
	Sb	121	0.112	ug/L	0.001	0	346	1869	0
	Sb	123	0.120	ug/L	0.010	8	257	1501	6
	Ba	135	284.161	ug/L	1.684	0	17	1124268	0
	Ba	137	283.599	ug/L	1.361	0	19	1940917	0
>	Tb	159		ug/L			1001666	1036085	1
	Tl	205	0.195	ug/L	0.005	2	206	6532	1
	Pb	208	196.032	ug/L	3.347	1	157	8130963	0
	Bi	209		ug/L			2293546	2295466	1
	Th	232	4.110	ug/L	0.119	2	1512	165291	1
	U	238	0.708	ug/L	0.015	2	29	30316	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 19:16:45
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	719924	1
	Be	9	0.863	ug/L	0.018	2	8	2196	2
	C	13		ug/L			63994	117998	1
	Cl	37		ug/L			3532807	4052008	2
>	Sc	45		ug/L			674505	942416	2
	V	51	31.075	ug/L	1.296	4	6013	588134	4
	V-1	51	31.170	ug/L	0.137	0	387	586996	2
	Cr	52	87.113	ug/L	1.934	2	17778	1428921	0
	Cr	53	85.943	ug/L	3.129	3	210	161104	4
	Mn	55	1408.012	ug/L	17.539	1	314	31242842	1
	Co	59	17.012	ug/L	0.484	2	73	289471	0
>	Ge	72		ug/L			426798	455844	1
	Ni	60	89.600	ug/L	2.900	3	26	254480	2
	Ni	62	93.872	ug/L	3.734	3	48	37993	2
	Cu	63	42.292	ug/L	0.992	2	88	269833	1
	Cu	65	42.820	ug/L	0.547	1	42	122715	0
	Zn	66	426.129	ug/L	11.006	2	141	709739	2
	Zn	67	425.743	ug/L	7.027	1	21	119656	1
	Zn	68	437.373	ug/L	6.370	1	144	527012	0
	As	75	16.524	ug/L	0.232	1	220	25710	1
	As-1	75	16.482	ug/L	0.339	2	9153	35266	1
	Se	82	0.055	ug/L	0.110	201	-1	7	252
	Se	78	0.662	ug/L	0.378	57	9315	10236	1
	Mo	98	0.656	ug/L	0.027	4	35	2679	2
	Y	89		ug/L			271155	443231	1
	Kr	83		ug/L			529	878	5
>	In	115		ug/L			840042	871070	0
	Ag	107	0.290	ug/L	0.006	1	32	3335	1
	Cd	111	6.478	ug/L	0.081	1	72	28183	0
	Cd	114	6.308	ug/L	0.056	0	44	68063	0
	Sb	121	0.051	ug/L	0.004	8	346	1042	5
	Sb	123	0.052	ug/L	0.003	5	257	791	4
	Ba	135	753.901	ug/L	7.627	1	17	2953351	1
	Ba	137	746.967	ug/L	5.655	0	19	5061727	1
>	Tb	159		ug/L			1001666	1035124	0
	Tl	205	0.483	ug/L	0.006	1	206	15871	1
	Pb	208	338.391	ug/L	2.883	0	157	14024866	0
	Bi	209		ug/L			2293546	2203123	0
	Th	232	5.877	ug/L	0.069	1	1512	235523	0
	U	238	0.789	ug/L	0.003	0	29	33751	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 19:20:55
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	714773	2
[	Be	9	51.803	ug/L	1.085	2	8	130335	0
	C	13		ug/L			63994	75101	0
	Cl	37		ug/L			3532807	4182247	1
[>	Sc	45		ug/L			674505	832095	2
[	V	51	47.312	ug/L	0.931	1	6013	786741	0
[	V-1	51	47.527	ug/L	0.674	1	387	789879	1
[	Cr	52	46.679	ug/L	1.800	3	17778	686101	1
[	Cr	53	47.386	ug/L	0.859	1	210	78533	1
[	Mn	55	45.912	ug/L	1.067	2	314	899782	0
[	Co	59	45.230	ug/L	1.300	2	73	679551	2
[>	Ge	72		ug/L			426798	459393	1
[	Ni	60	51.193	ug/L	0.678	1	26	146573	0
[	Ni	62	49.884	ug/L	1.182	2	48	20375	1
[	Cu	63	50.908	ug/L	1.049	2	88	327330	1
[	Cu	65	50.967	ug/L	1.408	2	42	147186	1
[	Zn	66	50.882	ug/L	0.997	1	141	85539	1
[	Zn	67	50.716	ug/L	0.577	1	21	14386	1
[	Zn	68	50.953	ug/L	0.749	1	144	62014	0
[	As	75	50.796	ug/L	0.352	0	220	79165	0
[	As-1	75	50.695	ug/L	0.250	0	9153	88876	0
[	Se	82	51.479	ug/L	1.125	2	-1	8772	1
[	Se	78	51.163	ug/L	0.764	1	9315	32457	0
[	Mo	98	49.240	ug/L	0.878	1	35	199762	2
	Y	89		ug/L			271155	296886	0
	Kr	83		ug/L			529	633	8
[>	In	115		ug/L			840042	843893	1
[	Ag	107	50.912	ug/L	0.435	0	32	560623	1
[	Cd	111	49.685	ug/L	0.832	1	72	208909	0
[	Cd	114	50.740	ug/L	0.516	1	44	530060	0
[	Sb	121	49.246	ug/L	0.969	1	346	637753	0
[	Sb	123	48.930	ug/L	0.637	1	257	481203	0
[	Ba	135	49.142	ug/L	0.654	1	17	186497	0
[	Ba	137	49.112	ug/L	0.898	1	19	322385	0
[>	Tb	159		ug/L			1001666	1011766	0
[	Tl	205	48.564	ug/L	0.201	0	206	1539532	0
[	Pb	208	49.714	ug/L	0.316	0	157	2014122	0
[	Bi	209		ug/L			2293546	2267245	0
[	Th	232	47.758	ug/L	0.446	0	1512	1860009	0
[	U	238	52.230	ug/L	0.076	0	29	2181966	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 19:27:47
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	722302	1
	Be	9	0.001	ug/L	0.001	70	8	12	16
	C	13		ug/L			63994	73459	1
	Cl	37		ug/L			3532807	3981251	4
>	Sc	45		ug/L			674505	821911	0
	V	51	-0.023	ug/L	0.006	26	6013	6958	1
	V-1	51	-0.023	ug/L	0.001	4	387	97	17
	Cr	52	-0.086	ug/L	0.018	20	17778	20454	1
	Cr	53	-0.085	ug/L	0.003	3	210	117	3
	Mn	55	0.009	ug/L	0.005	57	314	559	18
	Co	59	0.001	ug/L	0.000	64	73	99	7
>	Ge	72		ug/L			426798	461699	0
	Ni	60	0.001	ug/L	0.000	10	26	31	1
	Ni	62	-0.014	ug/L	0.017	125	48	46	15
	Cu	63	-0.000	ug/L	0.002	804	88	94	13
	Cu	65	-0.003	ug/L	0.003	116	42	37	24
	Zn	66	-0.011	ug/L	0.006	59	141	135	8
	Zn	67	0.011	ug/L	0.005	47	21	26	5
	Zn	68	-0.000	ug/L	0.014	3247	144	155	11
	As	75	0.027	ug/L	0.010	37	220	281	4
	As-1	75	0.125	ug/L	0.119	95	9153	10096	1
	Se	82	0.003	ug/L	0.018	598	-1	-1	201
	Se	78	0.388	ug/L	0.405	104	9315	10247	1
	Mo	98	0.001	ug/L	0.003	390	35	41	25
	Y	89		ug/L			271155	291107	2
	Kr	83		ug/L			529	593	1
>	In	115		ug/L			840042	834594	1
	Ag	107	0.000	ug/L	0.002	666	32	35	49
	Cd	111	0.003	ug/L	0.005	183	72	84	25
	Cd	114	0.002	ug/L	0.003	204	44	61	56
	Sb	121	0.029	ug/L	0.003	9	346	709	3
	Sb	123	0.031	ug/L	0.005	16	257	558	8
	Ba	135	0.006	ug/L	0.008	143	17	38	77
	Ba	137	0.007	ug/L	0.007	109	19	61	75
>	Tb	159		ug/L			1001666	996801	0
	Tl	205	0.005	ug/L	0.003	67	206	366	30
	Pb	208	0.005	ug/L	0.003	72	157	340	39
	Bi	209		ug/L			2293546	2324828	1
	Th	232	0.063	ug/L	0.004	6	1512	3906	3
	U	238	0.002	ug/L	0.002	73	29	115	54

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Friday, November 16, 2012 19:35:41
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	729812	1
	Be	9	0.017	ug/L	0.001	4	8	53	3
	C	13		ug/L			63994	77428	0
	Cl	37		ug/L			3532807	3845449	4
>	Sc	45		ug/L			674505	826368	1
	V	51	0.667	ug/L	0.011	1	6013	18283	1
	V-1	51	0.675	ug/L	0.015	2	387	11615	2
	Cr	52	0.654	ug/L	0.039	5	17778	31028	1
	Cr	53	0.681	ug/L	0.052	7	210	1373	5
	Mn	55	35.792	ug/L	0.540	1	314	696987	2
	Co	59	0.247	ug/L	0.003	1	73	3768	0
>	Ge	72		ug/L			426798	460217	1
	Ni	60	0.867	ug/L	0.011	1	26	2514	2
	Ni	62	0.902	ug/L	0.033	3	48	420	4
	Cu	63	1.129	ug/L	0.021	1	88	7365	0
	Cu	65	1.144	ug/L	0.034	3	42	3354	2
	Zn	66	16.363	ug/L	0.133	0	141	27660	0
	Zn	67	14.930	ug/L	0.231	1	21	4259	3
	Zn	68	16.012	ug/L	0.249	1	144	19627	0
	As	75	0.557	ug/L	0.027	4	220	1103	2
	As-1	75	0.713	ug/L	0.214	29	9153	10981	2
	Se	82	0.017	ug/L	0.095	575	-1	0	2305
	Se	78	0.598	ug/L	0.700	116	9315	10305	2
	Mo	98	0.012	ug/L	0.002	18	35	85	9
	Y	89		ug/L			271155	293004	1
	Kr	83		ug/L			529	582	5
>	In	115		ug/L			840042	859503	0
	Ag	107	0.008	ug/L	0.001	15	32	117	11
	Cd	111	0.305	ug/L	0.012	4	72	1379	4
	Cd	114	0.301	ug/L	0.001	0	44	3247	0
	Sb	121	0.013	ug/L	0.004	30	346	528	9
	Sb	123	0.016	ug/L	0.001	9	257	418	3
	Ba	135	10.367	ug/L	0.122	1	17	40089	1
	Ba	137	10.287	ug/L	0.035	0	19	68799	0
>	Tb	159		ug/L			1001666	1018310	0
	Tl	205	0.015	ug/L	0.004	28	206	691	19
	Pb	208	16.676	ug/L	0.085	0	157	680081	0
	Bi	209		ug/L			2293546	2379727	1
	Th	232	0.142	ug/L	0.003	1	1512	7086	1
	U	238	0.026	ug/L	0.000	0	29	1139	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 19:39:48
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	742724	2
[	Be	9	0.094	ug/L	0.007	7	8	256	7
	C	13		ug/L			63994	84981	2
	Cl	37		ug/L			3532807	3946582	3
[>	Sc	45		ug/L			674505	846476	1
[	V	51	3.491	ug/L	0.097	2	6013	66068	3
[	V-1	51	3.498	ug/L	0.065	1	387	59609	3
[	Cr	52	3.682	ug/L	0.007	0	17778	75633	1
[	Cr	53	3.700	ug/L	0.108	2	210	6481	1
[	Mn	55	185.993	ug/L	4.275	2	314	3707816	2
[	Co	59	1.209	ug/L	0.010	0	73	18579	2
[>	Ge	72		ug/L			426798	463155	0
[	Ni	60	4.438	ug/L	0.046	1	26	12836	0
[	Ni	62	4.522	ug/L	0.121	2	48	1910	2
[	Cu	63	5.794	ug/L	0.040	0	88	37650	0
[	Cu	65	5.769	ug/L	0.121	2	42	16840	1
[	Zn	66	82.770	ug/L	0.400	0	141	140197	0
[	Zn	67	75.675	ug/L	2.264	2	21	21633	3
[	Zn	68	80.715	ug/L	1.703	2	144	98954	1
[	As	75	2.847	ug/L	0.033	1	220	4699	1
[	As-1	75	2.936	ug/L	0.104	3	9153	14546	0
[	Se	82	-0.022	ug/L	0.080	364	-1	-5	238
[	Se	78	0.410	ug/L	0.273	66	9315	10290	0
[	Mo	98	0.051	ug/L	0.002	4	35	245	3
	Y	89		ug/L			271155	315783	2
	Kr	83		ug/L			529	622	6
[>	In	115		ug/L			840042	870252	1
[	Ag	107	0.043	ug/L	0.004	9	32	519	7
[	Cd	111	1.538	ug/L	0.014	0	72	6742	0
[	Cd	114	1.511	ug/L	0.025	1	44	16319	0
[	Sb	121	0.109	ug/L	0.004	3	346	1808	2
[	Sb	123	0.103	ug/L	0.004	3	257	1315	3
[	Ba	135	52.795	ug/L	0.896	1	17	206620	1
[	Ba	137	52.215	ug/L	0.766	1	19	353470	0
[>	Tb	159		ug/L			1001666	1023886	0
[	Tl	205	0.060	ug/L	0.003	5	206	2150	6
[	Pb	208	84.276	ug/L	1.041	1	157	3454938	0
[	Bi	209		ug/L			2293546	2371096	0
[	Th	232	0.701	ug/L	0.021	3	1512	29164	2
[	U	238	0.136	ug/L	0.002	1	29	5795	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 19:43:56
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	721529	2
[	Be	9	0.093	ug/L	0.006	6	8	244	8
	C	13		ug/L			63994	84203	0
	Cl	37		ug/L			3532807	3893775	3
[>	Sc	45		ug/L			674505	859024	2
[	V	51	3.048	ug/L	0.091	2	6013	59485	1
[	V-1	51	3.036	ug/L	0.059	1	387	52547	1
[	Cr	52	3.066	ug/L	0.141	4	17778	67678	1
[	Cr	53	3.026	ug/L	0.052	1	210	5428	3
[	Mn	55	183.326	ug/L	5.544	3	314	3707612	1
[	Co	59	1.115	ug/L	0.046	4	73	17377	3
[>	Ge	72		ug/L			426798	464843	2
[	Ni	60	3.278	ug/L	0.053	1	26	9523	2
[	Ni	62	3.436	ug/L	0.134	3	48	1468	3
[	Cu	63	5.497	ug/L	0.112	2	88	35843	0
[	Cu	65	5.467	ug/L	0.126	2	42	16012	0
[	Zn	66	78.915	ug/L	2.094	2	141	134108	1
[	Zn	67	72.355	ug/L	2.914	4	21	20744	1
[	Zn	68	77.321	ug/L	2.112	2	144	95118	1
[	As	75	2.770	ug/L	0.034	1	220	4595	2
[	As-1	75	2.810	ug/L	0.206	7	9153	14395	0
[	Se	82	0.048	ug/L	0.089	187	-1	6	244
[	Se	78	0.277	ug/L	0.622	224	9315	10264	0
[	Mo	98	0.054	ug/L	0.003	5	35	259	2
	Y	89		ug/L			271155	312024	1
	Kr	83		ug/L			529	609	5
[>	In	115		ug/L			840042	861767	0
[	Ag	107	0.042	ug/L	0.002	4	32	505	4
[	Cd	111	1.491	ug/L	0.015	0	72	6474	1
[	Cd	114	1.465	ug/L	0.020	1	44	15678	1
[	Sb	121	0.113	ug/L	0.002	1	346	1844	0
[	Sb	123	0.115	ug/L	0.004	3	257	1415	1
[	Ba	135	51.281	ug/L	0.075	0	17	198758	0
[	Ba	137	50.614	ug/L	0.817	1	19	339307	0
[>	Tb	159		ug/L			1001666	1015290	0
[	Tl	205	0.058	ug/L	0.002	2	206	2051	2
[	Pb	208	80.808	ug/L	0.354	0	157	3285158	0
[	Bi	209		ug/L			2293546	2354843	0
[	Th	232	0.674	ug/L	0.009	1	1512	27843	0
[	U	238	0.136	ug/L	0.002	1	29	5744	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 19:48:03
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	711145	0
[	Be	9	5.039	ug/L	0.086	1	8	12623	1
	C	13		ug/L			63994	81486	2
	Cl	37		ug/L			3532807	3914667	5
[>	Sc	45		ug/L			674505	810657	1
[	V	51	7.974	ug/L	0.166	2	6013	135200	1
[	V-1	51	7.874	ug/L	0.108	1	387	127889	1
[	Cr	52	7.755	ug/L	0.312	4	17778	128879	1
[	Cr	53	7.439	ug/L	0.035	0	210	12225	1
[	Mn	55	196.093	ug/L	3.826	1	314	3743698	2
[	Co	59	5.480	ug/L	0.128	2	73	80299	2
[>	Ge	72		ug/L			426798	467258	1
[	Ni	60	8.228	ug/L	0.166	2	26	23985	1
[	Ni	62	8.332	ug/L	0.285	3	48	3506	3
[	Cu	63	10.268	ug/L	0.366	3	88	67224	2
[	Cu	65	10.427	ug/L	0.250	2	42	30673	3
[	Zn	66	95.661	ug/L	2.945	3	141	163428	2
[	Zn	67	86.936	ug/L	1.721	1	21	25063	1
[	Zn	68	95.182	ug/L	2.725	2	144	117675	1
[	As	75	7.522	ug/L	0.173	2	220	12128	1
[	As-1	75	7.466	ug/L	0.220	2	9153	21857	1
[	Se	82	15.116	ug/L	0.411	2	-1	2618	1
[	Se	78	14.817	ug/L	0.586	3	9315	16805	1
[	Mo	98	4.096	ug/L	0.082	2	35	16935	1
	Y	89		ug/L			271155	318954	1
	Kr	83		ug/L			529	582	4
[>	In	115		ug/L			840042	862695	0
[	Ag	107	4.308	ug/L	0.108	2	32	48519	2
[	Cd	111	6.198	ug/L	0.057	0	72	26709	0
[	Cd	114	6.209	ug/L	0.086	1	44	66350	0
[	Sb	121	0.457	ug/L	0.005	1	346	6400	1
[	Sb	123	0.445	ug/L	0.008	1	257	4734	1
[	Ba	135	57.109	ug/L	0.592	1	17	221575	0
[	Ba	137	56.882	ug/L	0.561	0	19	381754	0
[>	Tb	159		ug/L			1001666	1024975	0
[	Tl	205	4.510	ug/L	0.019	0	206	145015	0
[	Pb	208	88.285	ug/L	0.655	0	157	3623297	0
[	Bi	209		ug/L			2293546	2342141	0
[	Th	232	4.837	ug/L	0.054	1	1512	192228	0
[	U	238	4.588	ug/L	0.068	1	29	194171	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 19:52:10
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	712629	0
[	Be	9	0.221	ug/L	0.008	3	8	562	4
	C	13		ug/L			63994	82754	4
	Cl	37		ug/L			3532807	3971888	3
[>	Sc	45		ug/L			674505	836432	5
[	V	51	7.093	ug/L	0.262	3	6013	124834	3
[	V-1	51	6.965	ug/L	0.223	3	387	116691	3
[	Cr	52	20.019	ug/L	0.505	2	17778	308359	3
[	Cr	53	19.268	ug/L	0.388	2	210	32240	3
[	Mn	55	322.895	ug/L	8.498	2	314	6355347	2
[	Co	59	3.960	ug/L	0.076	1	73	59870	3
[>	Ge	72		ug/L			426798	461840	2
[	Ni	60	18.651	ug/L	0.525	2	26	53692	2
[	Ni	62	18.826	ug/L	0.423	2	48	7762	2
[	Cu	63	8.811	ug/L	0.095	1	88	57043	2
[	Cu	65	9.082	ug/L	0.339	3	42	26404	3
[	Zn	66	92.365	ug/L	2.424	2	141	155957	2
[	Zn	67	90.169	ug/L	1.144	1	21	25691	1
[	Zn	68	94.985	ug/L	0.518	0	144	116100	2
[	As	75	3.470	ug/L	0.050	1	220	5657	1
[	As-1	75	3.425	ug/L	0.142	4	9153	15268	1
[	Se	82	0.126	ug/L	0.073	58	-1	19	64
[	Se	78	0.109	ug/L	0.397	365	9315	10125	1
[	Mo	98	0.166	ug/L	0.009	5	35	713	3
	Y	89		ug/L			271155	321510	4
	Kr	83		ug/L			529	629	4
[>	In	115		ug/L			840042	858166	0
[	Ag	107	0.096	ug/L	0.004	3	32	1105	3
[	Cd	111	1.465	ug/L	0.007	0	72	6339	0
[	Cd	114	1.426	ug/L	0.027	1	44	15189	1
[	Sb	121	-0.002	ug/L	0.002	97	346	328	7
[	Sb	123	-0.001	ug/L	0.002	215	257	255	6
[	Ba	135	148.076	ug/L	1.233	0	17	571508	1
[	Ba	137	146.296	ug/L	1.374	0	19	976685	1
[>	Tb	159		ug/L			1001666	1030737	1
[	Tl	205	0.131	ug/L	0.004	2	206	4450	2
[	Pb	208	67.656	ug/L	0.182	0	157	2792349	1
[	Bi	209		ug/L			2293546	2338354	0
[	Th	232	1.265	ug/L	0.024	1	1512	51690	0
[	U	238	0.204	ug/L	0.001	0	29	8691	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 19:56:18
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	737913	1
	Be	9	0.116	ug/L	0.000	0	8	310	1
	C	13		ug/L			63994	83267	0
	Cl	37		ug/L			3532807	4013072	1
>	Sc	45		ug/L			674505	866552	0
	V	51	6.037	ug/L	0.038	0	6013	111311	0
	V-1	51	5.990	ug/L	0.018	0	387	104121	0
	Cr	52	5.614	ug/L	0.266	4	17778	106047	2
	Cr	53	5.472	ug/L	0.164	2	210	9684	2
	Mn	55	192.149	ug/L	4.445	2	314	3921135	1
	Co	59	2.067	ug/L	0.068	3	73	32429	2
>	Ge	72		ug/L			426798	474948	1
	Ni	60	5.060	ug/L	0.113	2	26	15002	1
	Ni	62	5.058	ug/L	0.186	3	48	2184	4
	Cu	63	6.086	ug/L	0.137	2	88	40537	0
	Cu	65	6.066	ug/L	0.143	2	42	18155	2
	Zn	66	65.633	ug/L	1.784	2	141	114014	2
	Zn	67	62.057	ug/L	1.572	2	21	18190	1
	Zn	68	64.714	ug/L	2.006	3	144	81371	1
	As	75	3.817	ug/L	0.038	0	220	6376	1
	As-1	75	3.788	ug/L	0.072	1	9153	16288	0
	Se	82	0.031	ug/L	0.030	95	-1	3	154
	Se	78	0.017	ug/L	0.222	1270	9315	10373	0
	Mo	98	0.083	ug/L	0.002	2	35	388	1
	Y	89		ug/L			271155	325507	1
	Kr	83		ug/L			529	615	4
>	In	115		ug/L			840042	870117	0
	Ag	107	0.052	ug/L	0.003	5	32	625	5
	Cd	111	1.349	ug/L	0.042	3	72	5923	2
	Cd	114	1.360	ug/L	0.015	1	44	14692	1
	Sb	121	0.019	ug/L	0.005	26	346	608	10
	Sb	123	0.015	ug/L	0.000	1	257	420	0
	Ba	135	57.226	ug/L	0.643	1	17	223935	0
	Ba	137	57.421	ug/L	0.347	0	19	388698	1
>	Tb	159		ug/L			1001666	1035898	0
	Tl	205	0.055	ug/L	0.001	2	206	1994	2
	Pb	208	52.939	ug/L	0.657	1	157	2195819	0
	Bi	209		ug/L			2293546	2363818	0
	Th	232	1.197	ug/L	0.012	0	1512	49235	0
	U	238	0.119	ug/L	0.002	1	29	5122	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:00:25
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	720498	0
	Be	9	0.541	ug/L	0.006	1	8	1382	0
	C	13		ug/L			63994	107445	2
	Cl	37		ug/L			3532807	4121040	3
>	Sc	45		ug/L			674505	931936	1
	V	51	32.461	ug/L	0.237	0	6013	607360	2
	V-1	51	32.320	ug/L	0.275	0	387	601904	2
	Cr	52	21.186	ug/L	0.290	1	17778	362323	1
	Cr	53	21.029	ug/L	0.446	2	210	39197	1
	Mn	55	497.382	ug/L	12.841	2	314	10912889	0
	Co	59	7.010	ug/L	0.153	2	73	118034	1
>	Ge	72		ug/L			426798	466141	0
	Ni	60	16.891	ug/L	0.264	1	26	49095	1
	Ni	62	18.926	ug/L	0.715	3	48	7877	3
	Cu	63	23.784	ug/L	0.508	2	88	155260	2
	Cu	65	24.689	ug/L	0.258	1	42	72382	0
	Zn	66	198.399	ug/L	6.777	3	141	337982	3
	Zn	67	190.189	ug/L	2.093	1	21	54679	0
	Zn	68	197.196	ug/L	5.571	2	144	243107	2
	As	75	9.829	ug/L	0.138	1	220	15738	0
	As-1	75	9.856	ug/L	0.233	2	9153	25585	0
	Se	82	0.028	ug/L	0.074	260	-1	2	446
	Se	78	0.599	ug/L	0.306	51	9315	10440	0
	Mo	98	0.334	ug/L	0.010	3	35	1412	3
	Y	89		ug/L			271155	432389	0
	Kr	83		ug/L			529	783	4
>	In	115		ug/L			840042	863073	0
	Ag	107	0.188	ug/L	0.007	3	32	2144	3
	Cd	111	3.535	ug/L	0.027	0	72	15272	0
	Cd	114	3.489	ug/L	0.039	1	44	37325	0
	Sb	121	0.124	ug/L	0.020	16	346	1999	13
	Sb	123	0.106	ug/L	0.000	0	257	1333	0
	Ba	135	159.076	ug/L	2.046	1	17	617432	0
	Ba	137	160.467	ug/L	2.127	1	19	1077433	1
>	Tb	159		ug/L			1001666	1030677	0
	Tl	205	0.202	ug/L	0.008	3	206	6738	3
	Pb	208	145.651	ug/L	1.935	1	157	6010697	1
	Bi	209		ug/L			2293546	2267293	2
	Th	232	6.125	ug/L	0.085	1	1512	244331	0
	U	238	0.745	ug/L	0.005	0	29	31742	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 20:04:33

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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	732318	1
	Be	9	0.110	ug/L	0.002	2	8	294	3
	C	13		ug/L			63994	81034	3
	Cl	37		ug/L			3532807	4009514	2
>	Sc	45		ug/L			674505	871538	1
	V	51	9.650	ug/L	0.287	2	6013	174286	2
	V-1	51	9.656	ug/L	0.307	3	387	168482	2
	Cr	52	6.254	ug/L	0.145	2	17778	116204	0
	Cr	53	6.360	ug/L	0.210	3	210	11275	2
	Mn	55	128.856	ug/L	3.127	2	314	2644624	1
	Co	59	2.056	ug/L	0.037	1	73	32449	2
>	Ge	72		ug/L			426798	480111	1
	Ni	60	3.825	ug/L	0.105	2	26	11473	2
	Ni	62	4.352	ug/L	0.083	1	48	1907	2
	Cu	63	8.054	ug/L	0.055	0	88	54209	0
	Cu	65	8.095	ug/L	0.262	3	42	24472	3
	Zn	66	80.853	ug/L	1.959	2	141	141961	2
	Zn	67	75.056	ug/L	3.424	4	21	22243	5
	Zn	68	80.088	ug/L	0.201	0	144	101788	1
	As	75	4.526	ug/L	0.029	0	220	7598	1
	As-1	75	4.451	ug/L	0.026	0	9153	17547	1
	Se	82	0.052	ug/L	0.041	78	-1	7	101
	Se	78	-0.095	ug/L	0.106	112	9315	10435	0
	Mo	98	0.048	ug/L	0.004	8	35	242	5
	Y	89		ug/L			271155	327703	1
	Kr	83		ug/L			529	635	3
>	In	115		ug/L			840042	878881	0
	Ag	107	0.052	ug/L	0.002	4	32	626	3
	Cd	111	1.996	ug/L	0.060	3	72	8812	2
	Cd	114	2.039	ug/L	0.050	2	44	22225	2
	Sb	121	0.051	ug/L	0.005	8	346	1050	6
	Sb	123	0.055	ug/L	0.002	4	257	836	3
	Ba	135	25.857	ug/L	0.470	1	17	102212	1
	Ba	137	25.835	ug/L	0.426	1	19	176661	1
>	Tb	159		ug/L			1001666	1031609	0
	Tl	205	0.077	ug/L	0.001	1	206	2699	1
	Pb	208	81.546	ug/L	1.090	1	157	3368482	1
	Bi	209		ug/L			2293546	2377421	0
	Th	232	1.287	ug/L	0.012	0	1512	52637	1
	U	238	0.131	ug/L	0.002	1	29	5624	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:09:45
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	740405	0
[	Be	9	0.505	ug/L	0.004	0	8	1324	1
	C	13		ug/L			63994	100426	3
	Cl	37		ug/L			3532807	4050176	1
[>	Sc	45		ug/L			674505	961277	2
[	V	51	43.288	ug/L	1.144	2	6013	832149	0
[	V-1	51	42.977	ug/L	0.918	2	387	825034	0
[	Cr	52	28.216	ug/L	1.216	4	17778	489103	2
[	Cr	53	27.613	ug/L	0.544	1	210	52993	2
[	Mn	55	559.367	ug/L	6.412	1	314	12660873	1
[	Co	59	8.740	ug/L	0.280	3	73	151758	2
[>	Ge	72		ug/L			426798	467395	0
[	Ni	60	18.741	ug/L	0.112	0	26	54616	0
[	Ni	62	21.479	ug/L	0.342	1	48	8957	1
[	Cu	63	39.057	ug/L	0.180	0	88	255563	0
[	Cu	65	38.833	ug/L	0.441	1	42	114126	0
[	Zn	66	377.544	ug/L	6.739	1	141	644772	1
[	Zn	67	347.059	ug/L	6.578	1	21	100025	1
[	Zn	68	366.278	ug/L	3.503	0	144	452630	1
[	As	75	21.723	ug/L	0.078	0	220	34584	0
[	As-1	75	21.709	ug/L	0.013	0	9153	44453	0
[	Se	82	0.070	ug/L	0.037	52	-1	10	62
[	Se	78	0.719	ug/L	0.188	26	9315	10522	0
[	Mo	98	0.271	ug/L	0.007	2	35	1158	2
	Y	89		ug/L			271155	429096	1
	Kr	83		ug/L			529	836	3
[>	In	115		ug/L			840042	898587	1
[	Ag	107	0.237	ug/L	0.011	4	32	2810	4
[	Cd	111	9.135	ug/L	0.138	1	72	40965	0
[	Cd	114	9.045	ug/L	0.147	1	44	100654	0
[	Sb	121	0.326	ug/L	0.005	1	346	4869	1
[	Sb	123	0.331	ug/L	0.005	1	257	3738	0
[	Ba	135	119.456	ug/L	1.495	1	17	482728	0
[	Ba	137	120.425	ug/L	0.608	0	19	841862	1
[>	Tb	159		ug/L			1001666	1033632	0
[	Tl	205	0.390	ug/L	0.006	1	206	12840	1
[	Pb	208	406.297	ug/L	3.228	0	157	16814924	0
[	Bi	209		ug/L			2293546	2266880	0
[	Th	232	6.282	ug/L	0.041	0	1512	251312	0
[	U	238	0.616	ug/L	0.015	2	29	26329	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:13:54
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	728518	1
	Be	9	0.948	ug/L	0.015	1	8	2440	2
	C	13		ug/L			63994	106394	0
	Cl	37		ug/L			3532807	4096322	2
>	Sc	45		ug/L			674505	957979	1
	V	51	35.125	ug/L	1.048	2	6013	674702	2
	V-1	51	34.820	ug/L	0.996	2	387	666353	1
	Cr	52	60.745	ug/L	1.984	3	17778	1020636	2
	Cr	53	59.088	ug/L	1.855	3	210	112661	1
	Mn	55	1301.293	ug/L	40.486	3	314	29350765	2
	Co	59	10.054	ug/L	0.431	4	73	173947	2
>	Ge	72		ug/L			426798	462533	0
	Ni	60	63.963	ug/L	0.422	0	26	184403	1
	Ni	62	65.428	ug/L	0.494	0	48	26895	1
	Cu	63	23.709	ug/L	0.537	2	88	153543	1
	Cu	65	23.930	ug/L	0.557	2	42	69613	2
	Zn	66	297.823	ug/L	6.623	2	141	503343	1
	Zn	67	295.440	ug/L	12.520	4	21	84258	3
	Zn	68	306.585	ug/L	4.290	1	144	374947	1
	As	75	16.588	ug/L	0.301	1	220	26190	1
	As-1	75	16.671	ug/L	0.299	1	9153	36082	0
	Se	82	-0.309	ug/L	0.057	18	-1	-55	17
	Se	78	0.783	ug/L	0.254	32	9315	10440	0
	Mo	98	0.527	ug/L	0.015	2	35	2192	3
	Y	89		ug/L			271155	401332	1
	Kr	83		ug/L			529	913	0
>	In	115		ug/L			840042	841269	1
	Ag	107	0.190	ug/L	0.009	4	32	2112	3
	Cd	111	4.156	ug/L	0.107	2	72	17486	0
	Cd	114	4.109	ug/L	0.170	4	44	42814	2
	Sb	121	0.035	ug/L	0.003	7	346	802	2
	Sb	123	0.036	ug/L	0.003	9	257	606	3
	Ba	135	467.970	ug/L	14.501	3	17	1769878	1
	Ba	137	486.289	ug/L	17.679	3	19	3181171	1
>	Tb	159		ug/L			1001666	1017480	0
	Tl	205	0.237	ug/L	0.005	2	206	7759	2
	Pb	208	188.357	ug/L	2.949	1	157	7673339	1
	Bi	209		ug/L			2293546	2238291	0
	Th	232	5.589	ug/L	0.062	1	1512	220256	0
	U	238	0.546	ug/L	0.011	2	29	22956	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 20:18:03
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	714361	1
	Be	9	53.268	ug/L	1.034	1	8	133969	1
	C	13		ug/L			63994	76326	1
	Cl	37		ug/L			3532807	4137131	2
>	Sc	45		ug/L			674505	855160	1
	V	51	47.408	ug/L	0.195	0	6013	810376	0
	V-1	51	47.387	ug/L	0.470	0	387	809481	0
	Cr	52	45.766	ug/L	0.985	2	17778	692107	2
	Cr	53	45.741	ug/L	1.073	2	210	77921	1
	Mn	55	45.803	ug/L	0.803	1	314	922699	0
	Co	59	44.846	ug/L	1.293	2	73	692454	1
>	Ge	72		ug/L			426798	474413	0
	Ni	60	50.448	ug/L	0.383	0	26	149177	0
	Ni	62	49.482	ug/L	0.672	1	48	20875	0
	Cu	63	50.172	ug/L	0.481	0	88	333185	0
	Cu	65	50.316	ug/L	1.174	2	42	150077	1
	Zn	66	50.422	ug/L	0.224	0	141	87544	0
	Zn	67	49.071	ug/L	0.656	1	21	14376	1
	Zn	68	49.689	ug/L	0.038	0	144	62463	0
	As	75	49.191	ug/L	0.655	1	220	79178	0
	As-1	75	49.295	ug/L	0.419	0	9153	89528	0
	Se	82	49.488	ug/L	1.203	2	-1	8709	2
	Se	78	49.860	ug/L	0.174	0	9315	32931	0
	Mo	98	47.434	ug/L	0.157	0	35	198721	0
	Y	89		ug/L			271155	298189	3
	Kr	83		ug/L			529	627	2
>	In	115		ug/L			840042	846625	0
	Ag	107	49.032	ug/L	0.701	1	32	541679	2
	Cd	111	49.979	ug/L	0.629	1	72	210861	1
	Cd	114	50.181	ug/L	0.622	1	44	525990	2
	Sb	121	48.950	ug/L	0.492	1	346	636033	0
	Sb	123	49.055	ug/L	0.634	1	257	484019	1
	Ba	135	48.879	ug/L	0.798	1	17	186108	1
	Ba	137	48.817	ug/L	0.347	0	19	321522	0
>	Tb	159		ug/L			1001666	1023308	1
	Tl	205	47.505	ug/L	0.650	1	206	1522946	0
	Pb	208	48.658	ug/L	0.540	1	157	1993638	0
	Bi	209		ug/L			2293546	2285658	0
	Th	232	46.753	ug/L	0.907	1	1512	1841369	0
	U	238	50.336	ug/L	2.867	5	29	2126316	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 20:24:56
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	713347	1
[	Be	9	0.002	ug/L	0.002	90	8	14	34
	C	13		ug/L			63994	75773	1
	Cl	37		ug/L			3532807	3901506	1
[>	Sc	45		ug/L			674505	834394	2
[	V	51	-0.015	ug/L	0.006	38	6013	7190	1
[	V-1	51	-0.023	ug/L	0.002	7	387	94	31
[	Cr	52	-0.062	ug/L	0.026	42	17778	21104	1
[	Cr	53	-0.087	ug/L	0.008	9	210	115	10
[	Mn	55	0.020	ug/L	0.031	152	314	796	79
[	Co	59	-0.000	ug/L	0.000	94	73	83	10
[>	Ge	72		ug/L			426798	458353	1
[	Ni	60	-0.002	ug/L	0.003	191	26	23	35
[	Ni	62	-0.032	ug/L	0.019	59	48	39	20
[	Cu	63	-0.001	ug/L	0.002	116	88	86	12
[	Cu	65	0.000	ug/L	0.004	4231	42	45	24
[	Zn	66	-0.002	ug/L	0.011	501	141	148	12
[	Zn	67	0.007	ug/L	0.012	161	21	25	14
[	Zn	68	-0.003	ug/L	0.022	775	144	151	17
[	As	75	0.006	ug/L	0.006	94	220	246	3
[	As-1	75	0.231	ug/L	0.109	47	9153	10187	0
[	Se	82	-0.028	ug/L	0.024	86	-1	-6	60
[	Se	78	0.826	ug/L	0.386	46	9315	10364	0
[	Mo	98	0.000	ug/L	0.001	752	35	39	10
	Y	89		ug/L			271155	291001	1
	Kr	83		ug/L			529	600	1
[>	In	115		ug/L			840042	833657	1
[	Ag	107	-0.000	ug/L	0.000	72	32	29	9
[	Cd	111	-0.000	ug/L	0.001	550	72	71	6
[	Cd	114	-0.001	ug/L	0.001	68	44	29	35
[	Sb	121	0.025	ug/L	0.006	23	346	664	10
[	Sb	123	0.026	ug/L	0.006	23	257	506	12
[	Ba	135	0.010	ug/L	0.015	154	17	53	104
[	Ba	137	0.016	ug/L	0.024	149	19	119	125
[>	Tb	159		ug/L			1001666	982159	0
[	Tl	205	0.007	ug/L	0.006	86	206	403	42
[	Pb	208	0.016	ug/L	0.022	142	157	773	113
[	Bi	209		ug/L			2293546	2322252	1
[	Th	232	0.062	ug/L	0.002	3	1512	3822	2
[	U	238	0.001	ug/L	0.001	60	29	87	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:29:04
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	723580	1
	Be	9	~0.000	ug/L	0.002	554	8	10	45
	C	13		ug/L			63994	79120	1
	Cl	37		ug/L			3532807	4110660	4
>	Sc	45		ug/L			674505	836487	2
	V	51	-0.017	ug/L	0.009	49	6013	7165	0
	V-1	51	-0.024	ug/L	0.000	2	387	83	9
	Cr	52	-0.058	ug/L	0.026	44	17778	21208	0
	Cr	53	-0.078	ug/L	0.008	9	210	131	10
	Mn	55	0.020	ug/L	0.002	7	314	782	2
	Co	59	0.004	ug/L	0.000	8	73	144	4
>	Ge	72		ug/L			426798	458918	1
	Ni	60	0.002	ug/L	0.001	54	26	34	9
	Ni	62	-0.042	ug/L	0.012	28	48	35	15
	Cu	63	0.443	ug/L	0.005	1	88	2941	1
	Cu	65	0.456	ug/L	0.016	3	42	1360	4
	Zn	66	0.763	ug/L	0.021	2	141	1432	3
	Zn	67	0.693	ug/L	0.046	6	21	219	7
	Zn	68	0.694	ug/L	0.023	3	144	997	3
	As	75	0.001	ug/L	0.017	2584	220	238	9
	As-1	75	0.296	ug/L	0.056	18	9153	10301	0
	Se	82	-0.030	ug/L	0.084	281	-1	-7	200
	Se	78	1.058	ug/L	0.207	19	9315	10479	0
	Mo	98	-0.005	ug/L	0.001	15	35	17	19
	Y	89		ug/L			271155	292564	1
	Kr	83		ug/L			529	592	3
>	In	115		ug/L			840042	855981	0
	Ag	107	-0.001	ug/L	0.000	13	32	22	7
	Cd	111	-0.003	ug/L	0.000	14	72	63	1
	Cd	114	-0.001	ug/L	0.001	87	44	39	13
	Sb	121	-0.009	ug/L	0.002	25	346	230	12
	Sb	123	-0.009	ug/L	0.002	25	257	175	12
	Ba	135	0.005	ug/L	0.002	38	17	35	19
	Ba	137	0.007	ug/L	0.001	18	19	64	12
>	Tb	159		ug/L			1001666	994826	0
	Tl	205	0.003	ug/L	0.003	126	206	290	36
	Pb	208	0.024	ug/L	0.001	2	157	1102	1
	Bi	209		ug/L			2293546	2319151	0
	Th	232	0.038	ug/L	0.012	30	1512	2948	15
	U	238	-0.000	ug/L	0.000	81	29	23	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:33:12
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	721392	1
[	Be	9	26.677	ug/L	0.687	2	8	67755	2
	C	13		ug/L			63994	75451	1
	Cl	37		ug/L			3532807	3953510	3
[>	Sc	45		ug/L			674505	858522	3
[	V	51	24.220	ug/L	0.849	3	6013	419019	0
[	V-1	51	24.059	ug/L	0.877	3	387	412483	0
[	Cr	52	24.050	ug/L	0.878	3	17778	375573	0
[	Cr	53	23.538	ug/L	0.983	4	210	40349	0
[	Mn	55	23.542	ug/L	0.947	4	314	475921	1
[	Co	59	22.867	ug/L	0.895	3	73	354310	2
[>	Ge	72		ug/L			426798	465989	0
[	Ni	60	27.227	ug/L	0.548	2	26	79098	2
[	Ni	62	26.644	ug/L	0.308	1	48	11065	0
[	Cu	63	26.901	ug/L	0.350	1	88	175518	1
[	Cu	65	26.836	ug/L	0.343	1	42	78648	1
[	Zn	66	85.048	ug/L	2.134	2	141	144940	2
[	Zn	67	76.642	ug/L	0.165	0	21	22041	0
[	Zn	68	82.237	ug/L	0.424	0	144	101440	0
[	As	75	25.648	ug/L	0.170	0	220	40665	0
[	As-1	75	26.079	ug/L	0.458	1	9153	51228	0
[	Se	82	82.320	ug/L	0.064	0	-1	14233	0
[	Se	78	83.077	ug/L	1.408	1	9315	47118	1
[	Mo	98	24.335	ug/L	0.103	0	35	100158	0
	Y	89		ug/L			271155	295935	1
	Kr	83		ug/L			529	561	10
[>	In	115		ug/L			840042	847888	3
[	Ag	107	25.547	ug/L	0.663	2	32	282497	0
[	Cd	111	24.918	ug/L	0.418	1	72	105285	1
[	Cd	114	25.619	ug/L	0.982	3	44	268731	1
[	Sb	121	24.600	ug/L	0.788	3	346	320095	0
[	Sb	123	24.657	ug/L	0.624	2	257	243661	0
[	Ba	135	25.300	ug/L	0.914	3	17	96423	1
[	Ba	137	25.128	ug/L	0.827	3	19	165650	0
[>	Tb	159		ug/L			1001666	1006924	1
[	Tl	205	25.371	ug/L	0.352	1	206	800443	0
[	Pb	208	26.061	ug/L	0.532	2	157	1050704	0
[	Bi	209		ug/L			2293546	2350107	0
[	Th	232	24.216	ug/L	0.405	1	1512	939302	1
[	U	238	24.549	ug/L	0.439	1	29	1020526	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 20:37:19
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\111612.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			681751	735800	1
	Be	**9**	**0.122**	ug/L	0.007	5	8	326	6
	C	**13**		ug/L			63994	83902	3
	Cl	**37**		ug/L			3532807	3990547	2
>	**Sc**	**45**		ug/L			674505	883823	0
	V	**51**	**5.656**	ug/L	0.060	1	6013	106865	0
	V-1	**51**	**5.670**	ug/L	0.094	1	387	100542	1
	Cr	**52**	**5.369**	ug/L	0.058	1	17778	104489	1
	Cr	**53**	**5.419**	ug/L	0.128	2	210	9785	2
	Mn	**55**	**156.655**	ug/L	4.759	3	314	3260523	2
	Co	**59**	**1.551**	ug/L	0.046	2	73	24840	2
>	**Ge**	**72**		ug/L			426798	477176	1
	Ni	**60**	**4.030**	ug/L	0.070	1	26	12010	1
	Ni	**62**	**4.490**	ug/L	0.206	4	48	1954	4
	Cu	**63**	**5.657**	ug/L	0.216	3	88	37866	3
	Cu	**65**	**5.877**	ug/L	0.048	0	42	17673	1
	Zn	**66**	**70.843**	ug/L	0.842	1	141	123661	2
	Zn	**67**	**65.405**	ug/L	0.518	0	21	19264	1
	Zn	**68**	**68.816**	ug/L	0.548	0	144	86956	2
	As	**75**	**2.450**	ug/L	0.021	0	220	4201	1
	As-1	**75**	**2.451**	ug/L	0.067	2	9153	14200	0
	Se	**82**	**0.068**	ug/L	0.041	60	-1	9	72
	Se	**78**	**0.129**	ug/L	0.268	207	9315	10472	0
	Mo	**98**	**0.071**	ug/L	0.005	6	35	337	5
	Y	**89**		ug/L			271155	330213	2
	Kr	**83**		ug/L			529	610	2
>	**In**	**115**		ug/L			840042	862502	0
	Ag	**107**	**0.041**	ug/L	0.003	8	32	499	8
	Cd	**111**	**1.187**	ug/L	0.010	0	72	5174	0
	Cd	**114**	**1.170**	ug/L	0.023	1	44	12534	1
	Sb	**121**	**0.052**	ug/L	0.005	9	346	1041	6
	Sb	**123**	**0.053**	ug/L	0.006	11	257	795	8
	Ba	**135**	**42.823**	ug/L	0.143	0	17	166119	0
	Ba	**137**	**42.666**	ug/L	0.426	0	19	286280	0
>	**Tb**	**159**		ug/L			1001666	1028392	0
	Tl	**205**	**0.066**	ug/L	0.005	8	206	2323	7
	Pb	**208**	**45.600**	ug/L	0.143	0	157	1877796	0
	Bi	**209**		ug/L			2293546	2387220	0
	Th	**232**	**1.440**	ug/L	0.097	6	1512	58493	6
	U	**238**	**0.161**	ug/L	0.001	0	29	6854	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:41:27
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	738986	0
[	Be	9	0.564	ug/L	0.016	2	8	1477	2
	C	13		ug/L			63994	118129	1
	Cl	37		ug/L			3532807	4140354	0
[>	Sc	45		ug/L			674505	939596	2
[	V	51	26.592	ug/L	0.159	0	6013	503161	2
[	V-1	51	26.502	ug/L	0.297	1	387	497647	2
[	Cr	52	26.122	ug/L	0.726	2	17778	444626	2
[	Cr	53	25.844	ug/L	1.113	4	210	48479	2
[	Mn	55	741.705	ug/L	24.708	3	314	16403162	0
[	Co	59	7.273	ug/L	0.174	2	73	123454	0
[>	Ge	72		ug/L			426798	469465	0
[	Ni	60	20.550	ug/L	0.447	2	26	60143	1
[	Ni	62	21.943	ug/L	0.319	1	48	9190	0
[	Cu	63	27.876	ug/L	0.267	0	88	183250	1
[	Cu	65	28.151	ug/L	0.606	2	42	83105	1
[	Zn	66	336.332	ug/L	4.992	1	141	576950	1
[	Zn	67	315.347	ug/L	2.896	0	21	91298	1
[	Zn	68	331.929	ug/L	4.743	1	144	412004	1
[	As	75	12.008	ug/L	0.041	0	220	19311	0
[	As-1	75	12.061	ug/L	0.099	0	9153	29280	0
[	Se	82	0.130	ug/L	0.013	10	-1	20	12
[	Se	78	0.777	ug/L	0.368	47	9315	10594	0
[	Mo	98	0.314	ug/L	0.006	1	35	1340	1
	Y	89		ug/L			271155	436121	2
	Kr	83		ug/L			529	767	4
[>	In	115		ug/L			840042	877396	2
[	Ag	107	0.191	ug/L	0.009	4	32	2219	2
[	Cd	111	5.582	ug/L	0.140	2	72	24463	0
[	Cd	114	5.564	ug/L	0.126	2	44	60452	0
[	Sb	121	0.234	ug/L	0.008	3	346	3507	1
[	Sb	123	0.230	ug/L	0.008	3	257	2617	0
[	Ba	135	208.864	ug/L	5.414	2	17	823842	0
[	Ba	137	209.613	ug/L	5.250	2	19	1430271	1
[>	Tb	159		ug/L			1001666	1042447	1
[	Tl	205	0.272	ug/L	0.009	3	206	9112	2
[	Pb	208	236.179	ug/L	2.432	1	157	9857384	0
[	Bi	209		ug/L			2293546	2263424	1
[	Th	232	5.873	ug/L	0.028	0	1512	237073	1
[	U	238	0.774	ug/L	0.007	0	29	33342	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:45:34

Be

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	726293	3
	Be	9	0.676	ug/L	0.021	3	8	1737	2
	C	13		ug/L			63994	99225	2
	Cl	37		ug/L			3532807	4090838	1
>	Sc	45		ug/L			674505	965512	3
	V	51	25.064	ug/L	0.659	2	6013	487509	0
	V-1	51	24.877	ug/L	0.771	3	387	479763	0
	Cr	52	19.775	ug/L	0.289	1	17778	352010	1
	Cr	53	19.314	ug/L	0.660	3	210	37299	0
	Mn	55	742.463	ug/L	29.132	3	314	16870218	2
	Co	59	8.362	ug/L	0.429	5	73	145730	1
>	Ge	72		ug/L			426798	468656	1
	Ni	60	23.359	ug/L	0.067	0	26	68250	1
	Ni	62	24.844	ug/L	0.488	1	48	10379	1
	Cu	63	25.536	ug/L	0.298	1	88	167571	1
	Cu	65	25.376	ug/L	0.335	1	42	74803	2
	Zn	66	197.672	ug/L	1.961	0	141	338561	0
	Zn	67	193.138	ug/L	2.678	1	21	55822	0
	Zn	68	200.172	ug/L	2.629	1	144	248104	1
	As	75	12.382	ug/L	0.145	1	220	19869	1
	As-1	75	12.411	ug/L	0.117	0	9153	29787	1
	Se	82	-0.138	ug/L	0.066	47	-1	-26	44
	Se	78	0.672	ug/L	0.161	23	9315	10529	1
	Mo	98	0.416	ug/L	0.006	1	35	1761	2
	Y	89		ug/L			271155	450609	0
	Kr	83		ug/L			529	900	2
>	In	115		ug/L			840042	852865	0
	Ag	107	0.208	ug/L	0.010	4	32	2344	4
	Cd	111	2.939	ug/L	0.046	1	72	12561	2
	Cd	114	2.775	ug/L	0.011	0	44	29337	0
	Sb	121	0.117	ug/L	0.002	1	346	1876	0
	Sb	123	0.113	ug/L	0.003	2	257	1384	2
	Ba	135	182.550	ug/L	0.743	0	17	700184	0
	Ba	137	183.726	ug/L	1.511	0	19	1218962	0
>	Tb	159		ug/L			1001666	1032169	2
	Tl	205	0.210	ug/L	0.005	2	206	6997	1
	Pb	208	112.507	ug/L	2.384	2	157	4648486	0
	Bi	209		ug/L			2293546	2243014	2
	Th	232	7.213	ug/L	0.156	2	1512	287833	0
	U	238	1.043	ug/L	0.033	3	29	44468	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 20:49:41
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\111612.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	723072	0
[	Be	9	0.131	ug/L	0.006	4	8	342	4
	C	13		ug/L			63994	83887	3
	Cl	37		ug/L			3532807	4024481	0
[>	Sc	45		ug/L			674505	915312	0
[	V	51	5.769	ug/L	0.076	1	6013	112716	1
[	V-1	51	5.701	ug/L	0.047	0	387	104704	1
[	Cr	52	10.144	ug/L	0.230	2	17778	182968	1
[	Cr	53	9.811	ug/L	0.293	2	210	18113	2
[	Mn	55	222.412	ug/L	6.445	2	314	4793765	2
[	Co	59	1.712	ug/L	0.062	3	73	28384	2
[>	Ge	72		ug/L			426798	482838	1
[	Ni	60	7.390	ug/L	0.080	1	26	22263	0
[	Ni	62	7.758	ug/L	0.209	2	48	3376	2
[	Cu	63	5.393	ug/L	0.062	1	88	36537	0
[	Cu	65	5.407	ug/L	0.115	2	42	16453	1
[	Zn	66	56.971	ug/L	1.257	2	141	100629	0
[	Zn	67	55.242	ug/L	0.761	1	21	16466	0
[	Zn	68	58.195	ug/L	1.644	2	144	74407	1
[	As	75	3.049	ug/L	0.079	2	220	5228	1
[	As-1	75	3.085	ug/L	0.197	6	9153	15406	1
[	Se	82	0.006	ug/L	0.119	1972	-1	-1	1724
[	Se	78	0.178	ug/L	0.478	268	9315	10619	1
[	Mo	98	0.076	ug/L	0.006	7	35	365	6
	Y	89		ug/L			271155	333122	1
	Kr	83		ug/L			529	605	6
[>	In	115		ug/L			840042	864943	0
[	Ag	107	0.056	ug/L	0.001	2	32	660	2
[	Cd	111	1.133	ug/L	0.019	1	72	4957	2
[	Cd	114	1.087	ug/L	0.022	1	44	11686	1
[	Sb	121	0.006	ug/L	0.002	38	346	432	6
[	Sb	123	0.005	ug/L	0.002	50	257	313	7
[	Ba	135	74.481	ug/L	1.206	1	17	289715	0
[	Ba	137	73.912	ug/L	0.511	0	19	497338	0
[>	Tb	159		ug/L			1001666	1013700	0
[	Tl	205	0.054	ug/L	0.002	3	206	1939	4
[	Pb	208	60.005	ug/L	0.361	0	157	2435677	0
[	Bi	209		ug/L			2293546	2368962	0
[	Th	232	0.871	ug/L	0.005	0	1512	35496	0
[	U	238	0.220	ug/L	0.002	1	29	9247	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:53:49
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	727681	0
[	Be	9	0.644	ug/L	0.014	2	8	1660	2
	C	13		ug/L			63994	103642	1
	Cl	37		ug/L			3532807	4016937	2
[>	Sc	45		ug/L			674505	965503	2
[	V	51	27.443	ug/L	1.107	4	6013	532901	1
[	V-1	51	27.543	ug/L	1.061	3	387	531116	1
[	Cr	52	48.688	ug/L	1.593	3	17778	829281	1
[	Cr	53	48.451	ug/L	1.467	3	210	93137	0
[	Mn	55	1026.983	ug/L	32.793	3	314	23338362	0
[	Co	59	8.112	ug/L	0.243	2	73	141469	1
[>	Ge	72		ug/L			426798	465034	1
[	Ni	60	37.579	ug/L	0.376	1	26	108925	0
[	Ni	62	39.870	ug/L	1.987	4	48	16492	3
[	Cu	63	26.938	ug/L	0.173	0	88	175397	1
[	Cu	65	27.721	ug/L	0.554	1	42	81066	1
[	Zn	66	278.387	ug/L	1.055	0	141	473090	1
[	Zn	67	276.172	ug/L	5.802	2	21	79189	0
[	Zn	68	290.045	ug/L	3.437	1	144	356661	2
[	As	75	15.447	ug/L	0.098	0	220	24536	0
[	As-1	75	15.531	ug/L	0.192	1	9153	34478	0
[	Se	82	-0.072	ug/L	0.090	125	-1	-14	107
[	Se	78	0.940	ug/L	0.289	30	9315	10566	0
[	Mo	98	0.393	ug/L	0.027	6	35	1651	6
	Y	89		ug/L			271155	415913	1
	Kr	83		ug/L			529	879	5
[>	In	115		ug/L			840042	871864	0
[	Ag	107	0.275	ug/L	0.009	3	32	3158	3
[	Cd	111	5.362	ug/L	0.103	1	72	23363	1
[	Cd	114	5.282	ug/L	0.045	0	44	57052	0
[	Sb	121	0.102	ug/L	0.002	1	346	1719	0
[	Sb	123	0.099	ug/L	0.005	5	257	1273	4
[	Ba	135	371.434	ug/L	2.971	0	17	1456355	0
[	Ba	137	389.887	ug/L	3.612	0	19	2644365	0
[>	Tb	159		ug/L			1001666	1026566	1
[	Tl	205	0.284	ug/L	0.006	1	206	9358	0
[	Pb	208	311.329	ug/L	6.252	2	157	12793948	0
[	Bi	209		ug/L			2293546	2256326	0
[	Th	232	4.394	ug/L	0.100	2	1512	175004	0
[	U	238	1.087	ug/L	0.019	1	29	46115	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 20:57:56
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	715738	2
[	Be	9	0.518	ug/L	0.016	3	8	1313	2
	C	13		ug/L			63994	104082	2
	Cl	37		ug/L			3532807	3986361	2
[>	Sc	45		ug/L			674505	922984	2
[	V	51	18.652	ug/L	0.599	3	6013	348990	1
[	V-1	51	18.493	ug/L	0.588	3	387	341158	1
[	Cr	52	13.368	ug/L	0.406	3	17778	235362	1
[	Cr	53	12.995	ug/L	0.500	3	210	24091	2
[	Mn	55	520.649	ug/L	15.552	2	314	11312971	1
[	Co	59	5.599	ug/L	0.161	2	73	93397	2
[>	Ge	72		ug/L			426798	463377	1
[	Ni	60	15.931	ug/L	0.187	1	26	46026	0
[	Ni	62	17.529	ug/L	0.520	2	48	7255	2
[	Cu	63	19.386	ug/L	0.196	1	88	125805	1
[	Cu	65	19.222	ug/L	0.308	1	42	56023	0
[	Zn	66	209.484	ug/L	3.485	1	141	354722	0
[	Zn	67	196.021	ug/L	7.379	3	21	56006	2
[	Zn	68	206.541	ug/L	4.506	2	144	253058	0
[	As	75	13.643	ug/L	0.203	1	220	21619	0
[	As-1	75	13.826	ug/L	0.240	1	9153	31673	0
[	Se	82	0.010	ug/L	0.015	154	-1	0	777
[	Se	78	1.104	ug/L	0.255	23	9315	10601	0
[	Mo	98	0.253	ug/L	0.010	4	35	1072	3
	Y	89		ug/L			271155	404003	1
	Kr	83		ug/L			529	736	2
[>	In	115		ug/L			840042	868323	1
[	Ag	107	0.155	ug/L	0.009	5	32	1793	3
[	Cd	111	3.790	ug/L	0.087	2	72	16463	0
[	Cd	114	3.718	ug/L	0.101	2	44	39994	0
[	Sb	121	0.127	ug/L	0.007	5	346	2050	2
[	Sb	123	0.127	ug/L	0.006	4	257	1550	2
[	Ba	135	167.186	ug/L	3.714	2	17	652713	0
[	Ba	137	166.342	ug/L	1.711	1	19	1123515	0
[>	Tb	159		ug/L			1001666	1019285	2
[	Tl	205	0.179	ug/L	0.007	3	206	5922	1
[	Pb	208	139.735	ug/L	4.346	3	157	5700469	1
[	Bi	209		ug/L			2293546	2279217	1
[	Th	232	4.972	ug/L	0.119	2	1512	196384	0
[	U	238	0.820	ug/L	0.030	3	29	34528	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 21:03:07
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	718156	1
[	Be	9	0.110	ug/L	0.005	4	8	287	4
	C	13		ug/L			63994	81180	2
	Cl	37		ug/L			3532807	3986722	2
[>	Sc	45		ug/L			674505	893752	0
[	V	51	5.010	ug/L	0.097	1	6013	96633	1
[	V-1	51	4.990	ug/L	0.056	1	387	89552	1
[	Cr	52	5.833	ug/L	0.189	3	17778	112739	2
[	Cr	53	5.746	ug/L	0.058	1	210	10475	0
[	Mn	55	147.552	ug/L	2.864	1	314	3105799	1
[	Co	59	1.598	ug/L	0.006	0	73	25885	0
[>	Ge	72		ug/L			426798	475688	1
[	Ni	60	4.961	ug/L	0.087	1	26	14732	0
[	Ni	62	5.210	ug/L	0.061	1	48	2251	0
[	Cu	63	4.979	ug/L	0.053	1	88	33242	0
[	Cu	65	5.006	ug/L	0.047	0	42	15013	1
[	Zn	66	81.490	ug/L	2.061	2	141	141738	1
[	Zn	67	75.906	ug/L	1.825	2	21	22280	1
[	Zn	68	80.736	ug/L	2.678	3	144	101637	2
[	As	75	3.684	ug/L	0.031	0	220	6173	1
[	As-1	75	3.861	ug/L	0.059	1	9153	16433	1
[	Se	82	0.019	ug/L	0.097	515	-1	1	1283
[	Se	78	0.744	ug/L	0.118	15	9315	10720	0
[	Mo	98	0.063	ug/L	0.002	3	35	303	3
	Y	89		ug/L			271155	324083	0
	Kr	83		ug/L			529	622	5
[>	In	115		ug/L			840042	870532	1
[	Ag	107	0.069	ug/L	0.004	5	32	815	4
[	Cd	111	1.620	ug/L	0.041	2	72	7097	1
[	Cd	114	1.609	ug/L	0.006	0	44	17386	0
[	Sb	121	0.024	ug/L	0.001	5	346	684	3
[	Sb	123	0.026	ug/L	0.003	11	257	528	4
[	Ba	135	37.512	ug/L	0.427	1	17	146870	1
[	Ba	137	37.436	ug/L	0.386	1	19	253531	0
[>	Tb	159		ug/L			1001666	1025397	0
[	Tl	205	0.068	ug/L	0.002	2	206	2409	2
[	Pb	208	76.718	ug/L	0.497	0	157	3149930	0
[	Bi	209		ug/L			2293546	2361014	0
[	Th	232	1.017	ug/L	0.013	1	1512	41649	1
[	U	238	0.098	ug/L	0.002	1	29	4170	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 21:07:15

Be

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	731626	0
[	Be	9	0.560	ug/L	0.026	4	8	1452	4
	C	13		ug/L			63994	105991	3
	Cl	37		ug/L			3532807	4144019	0
[>	Sc	45		ug/L			674505	940529	1
[	V	51	25.020	ug/L	0.472	1	6013	474313	1
[	V-1	51	24.903	ug/L	0.370	1	387	468105	1
[	Cr	52	29.240	ug/L	0.616	2	17778	495260	1
[	Cr	53	28.752	ug/L	0.544	1	210	53979	0
[	Mn	55	739.840	ug/L	25.630	3	314	16383597	2
[	Co	59	8.071	ug/L	0.216	2	73	137152	1
[>	Ge	72		ug/L			426798	477029	0
[	Ni	60	25.944	ug/L	0.485	1	26	77163	2
[	Ni	62	27.414	ug/L	0.388	1	48	11652	0
[	Cu	63	24.594	ug/L	0.286	1	88	164274	1
[	Cu	65	25.458	ug/L	0.483	1	42	76371	1
[	Zn	66	403.816	ug/L	6.337	1	141	703817	0
[	Zn	67	371.921	ug/L	7.532	2	21	109396	1
[	Zn	68	398.923	ug/L	6.863	1	144	503077	1
[	As	75	18.497	ug/L	0.395	2	220	30088	1
[	As-1	75	18.478	ug/L	0.363	1	9153	40136	0
[	Se	82	0.126	ug/L	0.085	67	-1	20	74
[	Se	78	0.636	ug/L	0.057	9	9315	10701	0
[	Mo	98	0.366	ug/L	0.009	2	35	1583	3
	Y	89		ug/L			271155	390078	1
	Kr	83		ug/L			529	804	0
[>	In	115		ug/L			840042	904693	0
[	Ag	107	0.332	ug/L	0.006	1	32	3955	1
[	Cd	111	7.770	ug/L	0.051	0	72	35092	0
[	Cd	114	7.615	ug/L	0.099	1	44	85331	0
[	Sb	121	0.203	ug/L	0.009	4	346	3184	3
[	Sb	123	0.205	ug/L	0.005	2	257	2432	1
[	Ba	135	187.747	ug/L	3.378	1	17	763867	1
[	Ba	137	187.541	ug/L	2.966	1	19	1319811	0
[>	Tb	159		ug/L			1001666	1013771	0
[	Tl	205	0.370	ug/L	0.006	1	206	11951	1
[	Pb	208	426.103	ug/L	8.534	2	157	17294994	1
[	Bi	209		ug/L			2293546	2275610	0
[	Th	232	5.605	ug/L	0.092	1	1512	220067	1
[	U	238	0.519	ug/L	0.003	0	29	21749	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 21:11:23
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	714649	0
	Be	9	52.918	ug/L	0.966	1	8	133139	1
	C	13		ug/L			63994	76191	1
	Cl	37		ug/L			3532807	4113148	1
>	Sc	45		ug/L			674505	862217	1
	V	51	47.578	ug/L	0.851	1	6013	819872	1
	V-1	51	47.412	ug/L	0.853	1	387	816509	0
	Cr	52	46.700	ug/L	0.655	1	17778	711593	1
	Cr	53	46.190	ug/L	0.644	1	210	79334	0
	Mn	55	45.814	ug/L	0.619	1	314	930541	0
	Co	59	44.574	ug/L	0.848	1	73	694037	1
>	Ge	72		ug/L			426798	471651	1
	Ni	60	51.045	ug/L	0.285	0	26	150072	1
	Ni	62	50.130	ug/L	0.665	1	48	21023	0
	Cu	63	50.001	ug/L	0.591	1	88	330094	0
	Cu	65	51.352	ug/L	0.627	1	42	152294	2
	Zn	66	49.998	ug/L	0.773	1	141	86303	2
	Zn	67	51.724	ug/L	0.847	1	21	15061	0
	Zn	68	50.277	ug/L	2.255	4	144	62809	3
	As	75	49.438	ug/L	0.315	0	220	79119	2
	As-1	75	49.783	ug/L	0.206	0	9153	89790	1
	Se	82	49.887	ug/L	0.270	0	-1	8728	0
	Se	78	51.083	ug/L	1.265	2	9315	33284	0
	Mo	98	48.123	ug/L	0.537	1	35	200413	0
	Y	89		ug/L			271155	295087	3
	Kr	83		ug/L			529	608	3
>	In	115		ug/L			840042	843880	0
	Ag	107	48.421	ug/L	1.479	3	32	533151	3
	Cd	111	49.684	ug/L	0.554	1	72	208922	0
	Cd	114	49.715	ug/L	0.954	1	44	519387	2
	Sb	121	49.032	ug/L	0.406	0	346	635049	0
	Sb	123	48.522	ug/L	0.292	0	257	477224	0
	Ba	135	48.647	ug/L	0.351	0	17	184632	0
	Ba	137	48.895	ug/L	0.486	0	19	320993	0
>	Tb	159		ug/L			1001666	998596	0
	Tl	205	48.471	ug/L	0.242	0	206	1516580	0
	Pb	208	49.768	ug/L	0.231	0	157	1990062	0
	Bi	209		ug/L			2293546	2250203	0
	Th	232	47.644	ug/L	0.410	0	1512	1831451	1
	U	238	51.101	ug/L	3.397	6	29	2107112	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 21:18:16
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	709696	1
	Be	9	0.002	ug/L	0.002	77	8	14	31
	C	13		ug/L			63994	75835	0
	Cl	37		ug/L			3532807	3944174	1
>	Sc	45		ug/L			674505	840504	0
	V	51	-0.023	ug/L	0.004	17	6013	7112	1
	V-1	51	-0.024	ug/L	0.001	2	387	83	12
	Cr	52	-0.076	ug/L	0.006	8	17778	21066	1
	Cr	53	-0.077	ug/L	0.006	8	210	132	8
	Mn	55	0.006	ug/L	0.004	64	314	507	15
	Co	59	-0.000	ug/L	0.001	185	73	84	14
>	Ge	72		ug/L			426798	456965	1
	Ni	60	0.000	ug/L	0.001	412	26	28	11
	Ni	62	-0.026	ug/L	0.008	31	48	41	8
	Cu	63	-0.001	ug/L	0.002	259	88	89	15
	Cu	65	-0.003	ug/L	0.002	63	42	37	13
	Zn	66	-0.002	ug/L	0.005	230	141	148	3
	Zn	67	0.016	ug/L	0.017	109	21	27	18
	Zn	68	0.002	ug/L	0.011	455	144	157	7
	As	75	0.003	ug/L	0.011	347	220	240	5
	As-1	75	0.375	ug/L	0.129	34	9153	10380	0
	Se	82	-0.028	ug/L	0.070	249	-1	-6	176
	Se	78	1.326	ug/L	0.437	32	9315	10550	0
	Mo	98	0.002	ug/L	0.002	126	35	45	17
	Y	89		ug/L			271155	288647	1
	Kr	83		ug/L			529	585	5
>	In	115		ug/L			840042	826844	1
	Ag	107	0.000	ug/L	0.001	206	32	37	26
	Cd	111	-0.001	ug/L	0.002	442	72	69	12
	Cd	114	-0.000	ug/L	0.000	2787	44	44	11
	Sb	121	0.030	ug/L	0.005	18	346	715	8
	Sb	123	0.029	ug/L	0.006	22	257	532	10
	Ba	135	0.001	ug/L	0.002	288	17	19	29
	Ba	137	0.003	ug/L	0.000	12	19	38	5
>	Tb	159		ug/L			1001666	970421	1
	Tl	205	-0.000	ug/L	0.002	47518	206	199	28
	Pb	208	0.005	ug/L	0.002	39	157	339	20
	Bi	209		ug/L			2293546	2301911	0
	Th	232	0.076	ug/L	0.006	8	1512	4288	4
	U	238	0.002	ug/L	0.001	44	29	97	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 21:22:25
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	733946	0
[	Be	9	0.126	ug/L	0.006	4	8	336	3
	C	13		ug/L			63994	81185	2
	Cl	37		ug/L			3532807	4152499	0
[>	Sc	45		ug/L			674505	886774	2
[	V	51	4.584	ug/L	0.099	2	6013	88384	1
[	V-1	51	4.558	ug/L	0.087	1	387	81184	1
[	Cr	52	4.188	ug/L	0.190	4	17778	86881	1
[	Cr	53	4.113	ug/L	0.143	3	210	7515	2
[	Mn	55	203.336	ug/L	6.369	3	314	4245207	1
[	Co	59	1.424	ug/L	0.054	3	73	22892	1
[>	Ge	72		ug/L			426798	466834	1
[	Ni	60	5.043	ug/L	0.045	0	26	14698	1
[	Ni	62	5.349	ug/L	0.003	0	48	2267	1
[	Cu	63	6.783	ug/L	0.207	3	88	44399	1
[	Cu	65	6.822	ug/L	0.224	3	42	20057	2
[	Zn	66	106.710	ug/L	2.179	2	141	182112	0
[	Zn	67	100.955	ug/L	2.230	2	21	29076	1
[	Zn	68	104.712	ug/L	0.751	0	144	129347	0
[	As	75	3.621	ug/L	0.015	0	220	5958	0
[	As-1	75	3.778	ug/L	0.124	3	9153	15995	0
[	Se	82	0.059	ug/L	0.030	50	-1	8	61
[	Se	78	0.696	ug/L	0.400	57	9315	10498	0
[	Mo	98	0.089	ug/L	0.002	1	35	407	2
	Y	89		ug/L			271155	325673	0
	Kr	83		ug/L			529	600	3
[>	In	115		ug/L			840042	855426	0
[	Ag	107	0.065	ug/L	0.003	4	32	761	4
[	Cd	111	1.861	ug/L	0.019	0	72	8003	1
[	Cd	114	1.817	ug/L	0.013	0	44	19281	0
[	Sb	121	0.039	ug/L	0.004	9	346	866	6
[	Sb	123	0.042	ug/L	0.004	8	257	679	5
[	Ba	135	56.822	ug/L	0.086	0	17	218612	0
[	Ba	137	56.247	ug/L	0.371	0	19	374312	0
[>	Tb	159		ug/L			1001666	1013915	0
[	Tl	205	0.088	ug/L	0.008	9	206	3008	8
[	Pb	208	59.849	ug/L	0.430	0	157	2429809	0
[	Bi	209		ug/L			2293546	2349853	0
[	Th	232	0.993	ug/L	0.006	0	1512	40272	0
[	U	238	0.138	ug/L	0.003	1	29	5808	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 21:26:32

Be

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	736344	1
	Be	9	0.616	ug/L	0.015	2	8	1606	2
	C	13		ug/L			63994	102051	2
	Cl	37		ug/L			3532807	4147350	3
>	Sc	45		ug/L			674505	931110	1
	V	51	22.506	ug/L	0.584	2	6013	423151	1
	V-1	51	22.385	ug/L	0.584	2	387	416544	1
	Cr	52	20.983	ug/L	0.541	2	17778	358724	0
	Cr	53	20.632	ug/L	0.758	3	210	38423	2
	Mn	55	1009.597	ug/L	19.525	1	314	22140923	3
	Co	59	6.951	ug/L	0.123	1	73	116953	0
>	Ge	72		ug/L			426798	455909	1
	Ni	60	25.906	ug/L	0.583	2	26	73618	1
	Ni	62	27.445	ug/L	0.847	3	48	11148	2
	Cu	63	34.376	ug/L	0.258	0	88	219405	1
	Cu	65	34.443	ug/L	0.735	2	42	98732	1
	Zn	66	524.721	ug/L	9.879	1	141	873978	1
	Zn	67	492.375	ug/L	10.874	2	21	138390	0
	Zn	68	516.398	ug/L	9.957	1	144	622281	0
	As	75	18.599	ug/L	0.211	1	220	28914	0
	As-1	75	18.850	ug/L	0.305	1	9153	38934	0
	Se	82	0.291	ug/L	0.049	16	-1	47	16
	Se	78	1.795	ug/L	0.422	23	9315	10730	0
	Mo	98	0.491	ug/L	0.023	4	35	2013	3
	Y	89		ug/L			271155	431739	0
	Kr	83		ug/L			529	791	1
>	In	115		ug/L			840042	882739	1
	Ag	107	0.306	ug/L	0.004	1	32	3553	1
	Cd	111	8.826	ug/L	0.185	2	72	38889	2
	Cd	114	8.706	ug/L	0.080	0	44	95180	0
	Sb	121	0.225	ug/L	0.005	2	346	3404	1
	Sb	123	0.228	ug/L	0.002	1	257	2616	0
	Ba	135	283.240	ug/L	4.932	1	17	1124297	0
	Ba	137	284.837	ug/L	3.366	1	19	1955950	1
>	Tb	159		ug/L			1001666	1015488	2
	Tl	205	0.390	ug/L	0.015	3	206	12611	2
	Pb	208	323.944	ug/L	8.770	2	157	13166859	0
	Bi	209		ug/L			2293546	2247746	1
	Th	232	4.837	ug/L	0.095	1	1512	190387	0
	U	238	0.701	ug/L	0.013	1	29	29402	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 21:30:40
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	711020	1
	Be	9	0.092	ug/L	0.007	8	8	239	7
	C	13		ug/L			63994	81412	3
	Cl	37		ug/L			3532807	4047554	0
>	Sc	45		ug/L			674505	881265	2
	V	51	4.412	ug/L	0.138	3	6013	84805	1
	V-1	51	4.399	ug/L	0.119	2	387	77878	1
	Cr	52	3.734	ug/L	0.158	4	17778	79502	2
	Cr	53	3.713	ug/L	0.095	2	210	6768	1
	Mn	55	103.755	ug/L	4.277	4	314	2152278	1
	Co	59	1.067	ug/L	0.043	4	73	17057	1
>	Ge	72		ug/L			426798	480966	0
	Ni	60	2.674	ug/L	0.019	0	26	8042	0
	Ni	62	2.909	ug/L	0.078	2	48	1295	2
	Cu	63	4.156	ug/L	0.050	1	88	28072	1
	Cu	65	4.270	ug/L	0.074	1	42	12955	1
	Zn	66	67.575	ug/L	0.445	0	141	118891	0
	Zn	67	62.718	ug/L	0.994	1	21	18621	1
	Zn	68	66.856	ug/L	1.094	1	144	85144	1
	As	75	2.133	ug/L	0.042	1	220	3718	1
	As-1	75	2.111	ug/L	0.045	2	9153	13759	0
	Se	82	0.040	ug/L	0.073	183	-1	5	260
	Se	78	0.001	ug/L	0.168	17015	9315	10498	0
	Mo	98	0.079	ug/L	0.006	7	35	375	5
	Y	89		ug/L			271155	321656	2
	Kr	83		ug/L			529	606	2
>	In	115		ug/L			840042	855822	0
	Ag	107	0.052	ug/L	0.001	2	32	610	2
	Cd	111	1.409	ug/L	0.006	0	72	6081	1
	Cd	114	1.414	ug/L	0.014	0	44	15021	0
	Sb	121	0.047	ug/L	0.002	5	346	964	2
	Sb	123	0.046	ug/L	0.002	5	257	720	2
	Ba	135	42.183	ug/L	0.551	1	17	162373	1
	Ba	137	42.384	ug/L	0.543	1	19	282182	0
>	Tb	159		ug/L			1001666	1015088	1
	Tl	205	0.064	ug/L	0.001	2	206	2230	2
	Pb	208	49.493	ug/L	0.537	1	157	2011573	0
	Bi	209		ug/L			2293546	2383291	1
	Th	232	0.927	ug/L	0.019	2	1512	37714	1
	U	238	0.134	ug/L	0.007	4	29	5637	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 21:34:47
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	718922	2
	Be	9	0.432	ug/L	0.011	2	8	1102	2
	C	13		ug/L			63994	109993	2
	Cl	37		ug/L			3532807	4103638	4
>	Sc	45		ug/L			674505	929860	2
	V	51	20.834	ug/L	0.655	3	6013	391678	1
	V-1	51	20.574	ug/L	0.705	3	387	382238	1
	Cr	52	18.121	ug/L	0.071	0	17778	312803	3
	Cr	53	17.357	ug/L	0.239	1	210	32327	1
	Mn	55	476.006	ug/L	20.680	4	314	10415036	1
	Co	59	4.983	ug/L	0.122	2	73	83727	0
>	Ge	72		ug/L			426798	471749	2
	Ni	60	13.139	ug/L	0.623	4	26	38629	2
	Ni	62	14.802	ug/L	0.355	2	48	6245	1
	Cu	63	20.187	ug/L	0.601	2	88	133316	1
	Cu	65	21.168	ug/L	0.414	1	42	62797	0
	Zn	66	319.410	ug/L	13.946	4	141	550289	2
	Zn	67	300.576	ug/L	5.188	1	21	87427	1
	Zn	68	315.463	ug/L	12.484	3	144	393269	1
	As	75	10.597	ug/L	0.215	2	220	17148	0
	As-1	75	10.653	ug/L	0.382	3	9153	27161	0
	Se	82	0.065	ug/L	0.077	119	-1	9	146
	Se	78	0.665	ug/L	0.644	96	9315	10592	0
	Mo	98	0.423	ug/L	0.017	4	35	1802	4
	Y	89		ug/L			271155	404043	1
	Kr	83		ug/L			529	745	3
>	In	115		ug/L			840042	873656	0
	Ag	107	0.244	ug/L	0.010	4	32	2817	3
	Cd	111	6.729	ug/L	0.141	2	72	29356	1
	Cd	114	6.640	ug/L	0.105	1	44	71854	1
	Sb	121	0.304	ug/L	0.037	12	346	4427	10
	Sb	123	0.279	ug/L	0.001	0	257	3111	1
	Ba	135	203.170	ug/L	2.519	1	17	798249	1
	Ba	137	204.918	ug/L	2.556	1	19	1392661	0
>	Tb	159		ug/L			1001666	1023431	1
	Tl	205	0.303	ug/L	0.004	1	206	9936	1
	Pb	208	254.525	ug/L	3,819	1	157	10429074	0
	Bi	209		ug/L			2293546	2280900	1
	Th	232	4.545	ug/L	0.016	0	1512	180439	1
	U	238	0.648	ug/L	0.015	2	29	27392	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 21:38:54
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	736271	0
	Be	9	0.077	ug/L	0.003	3	8	208	4
	C	13		ug/L			63994	82252	2
	Cl	37		ug/L			3532807	3995510	2
>	Sc	45		ug/L			674505	887747	3
	V	51	4.303	ug/L	0.122	2	6013	83516	2
	V-1	51	4.309	ug/L	0.091	2	387	76852	2
	Cr	52	3.699	ug/L	0.126	3	17778	79536	1
	Cr	53	3.734	ug/L	0.083	2	210	6856	2
	Mn	55	422.543	ug/L	17.601	4	314	8825948	0
	Co	59	1.489	ug/L	0.036	2	73	23949	0
>	Ge	72		ug/L			426798	474380	0
	Ni	60	3.453	ug/L	0.003	0	26	10236	0
	Ni	62	3.578	ug/L	0.123	3	48	1559	2
	Cu	63	3.707	ug/L	0.025	0	88	24705	0
	Cu	65	3.776	ug/L	0.134	3	42	11303	2
	Zn	66	96.285	ug/L	1.832	1	141	167003	1
	Zn	67	89.426	ug/L	1.733	1	21	26175	1
	Zn	68	94.814	ug/L	1.592	1	144	119041	2
	As	75	3.136	ug/L	0.043	1	220	5277	1
	As-1	75	3.269	ug/L	0.085	2	9153	15435	0
	Se	82	0.040	ug/L	0.036	90	-1	4	127
	Se	78	0.594	ug/L	0.187	31	9315	10622	0
	Mo	98	0.212	ug/L	0.002	0	35	926	1
	Y	89		ug/L			271155	312596	1
	Kr	83		ug/L			529	616	2
>	In	115		ug/L			840042	870566	0
	Ag	107	0.058	ug/L	0.003	5	32	696	4
	Cd	111	1.738	ug/L	0.025	1	72	7612	2
	Cd	114	1.736	ug/L	0.027	1	44	18750	0
	Sb	121	0.040	ug/L	0.003	6	346	892	4
	Sb	123	0.040	ug/L	0.000	1	257	674	1
	Ba	135	74.229	ug/L	0.795	1	17	290618	0
	Ba	137	74.822	ug/L	0.405	0	19	506730	0
>	Tb	159		ug/L			1001666	1011751	0
	Tl	205	0.063	ug/L	0.001	2	206	2220	1
	Pb	208	78.359	ug/L	0.411	0	157	3174475	0
	Bi	209		ug/L			2293546	2360704	1
	Th	232	1.012	ug/L	0.011	1	1512	40903	0
	U	238	0.089	ug/L	0.001	1	29	3765	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 21:43:02
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\111612.cal

Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	733075	1
[	Be	9	0.385	ug/L	0.009	2	8	1001	1
	C	13		ug/L			63994	108198	2
	Cl	37		ug/L			3532807	4169058	3
[>	Sc	45		ug/L			674505	936807	0
[	V	51	21.001	ug/L	0.218	1	6013	397925	1
[	V-1	51	20.775	ug/L	0.098	0	387	389089	1
[	Cr	52	18.823	ug/L	0.195	1	17778	326394	1
[	Cr	53	18.154	ug/L	0.476	2	210	34056	2
[	Mn	55	2014.516	ug/L	46.931	2	314	44445471	2
[	Co	59	7.217	ug/L	0.240	3	73	122173	3
[>	Ge	72		ug/L			426798	471247	1
[	Ni	60	17.246	ug/L	0.457	2	26	50677	3
[	Ni	62	18.497	ug/L	0.729	3	48	7783	3
[	Cu	63	18.327	ug/L	0.052	0	88	120958	1
[	Cu	65	19.188	ug/L	0.584	3	42	56862	1
[	Zn	66	471.618	ug/L	3.520	0	141	812030	1
[	Zn	67	438.652	ug/L	14.587	3	21	127424	1
[	Zn	68	466.077	ug/L	4.314	0	144	580650	1
[	As	75	15.750	ug/L	0.138	0	220	25349	1
[	As-1	75	15.816	ug/L	0.154	0	9153	35395	1
[	Se	82	0.224	ug/L	0.041	18	-1	37	17
[	Se	78	0.802	ug/L	0.328	40	9315	10644	0
[	Mo	98	1.108	ug/L	0.038	3	35	4648	2
	Y	89		ug/L			271155	366327	1
	Kr	83		ug/L			529	681	2
[>	In	115		ug/L			840042	885258	0
[	Ag	107	0.277	ug/L	0.004	1	32	3233	1
[	Cd	111	8.240	ug/L	0.061	0	72	36414	0
[	Cd	114	8.425	ug/L	0.186	2	44	92373	2
[	Sb	121	0.277	ug/L	0.002	0	346	4128	0
[	Sb	123	0.270	ug/L	0.006	2	257	3055	2
[	Ba	135	371.181	ug/L	8.334	2	17	1477727	2
[	Ba	137	398.643	ug/L	7.476	1	19	2745302	1
[>	Tb	159		ug/L			1001666	1019659	0
[	Tl	205	0.326	ug/L	0.008	2	206	10614	1
[	Pb	208	419.165	ug/L	10.430	2	157	17111168	1
[	Bi	209		ug/L			2293546	2293873	0
[	Th	232	5.315	ug/L	0.110	2	1512	209962	1
[	U	238	0.454	ug/L	0.012	2	29	19125	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 21:47:09
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	742939	1
[	Be	9	0.119	ug/L	0.012	9	8	320	8
	C	13		ug/L			63994	81888	1
	Cl	37		ug/L			3532807	4040331	3
[>	Sc	45		ug/L			674505	900542	1
[	V	51	4.432	ug/L	0.068	1	6013	87056	0
[	V-1	51	4.419	ug/L	0.025	0	387	79956	0
[	Cr	52	3.814	ug/L	0.144	3	17778	82489	1
[	Cr	53	3.786	ug/L	0.060	1	210	7050	1
[	Mn	55	187.776	ug/L	1.615	0	314	3982551	0
[	Co	59	1.614	ug/L	0.009	0	73	26344	1
[>	Ge	72		ug/L			426798	476317	0
[	Ni	60	4.415	ug/L	0.048	1	26	13133	1
[	Ni	62	4.613	ug/L	0.214	4	48	2002	4
[	Cu	63	5.774	ug/L	0.197	3	88	38579	2
[	Cu	65	5.741	ug/L	0.108	1	42	17233	2
[	Zn	66	91.511	ug/L	1.832	2	141	159381	1
[	Zn	67	84.636	ug/L	1.089	1	21	24877	0
[	Zn	68	89.901	ug/L	1.666	1	144	113328	1
[	As	75	2.938	ug/L	0.032	1	220	4979	1
[	As-1	75	3.026	ug/L	0.041	1	9153	15106	0
[	Se	82	0.059	ug/L	0.045	76	-1	8	95
[	Se	78	0.418	ug/L	0.105	25	9315	10586	0
[	Mo	98	0.124	ug/L	0.002	1	35	561	1
	Y	89		ug/L			271155	329971	0
	Kr	83		ug/L			529	598	5
[>	In	115		ug/L			840042	860106	1
[	Ag	107	0.067	ug/L	0.001	1	32	788	2
[	Cd	111	1.839	ug/L	0.027	1	72	7950	0
[	Cd	114	1.819	ug/L	0.045	2	44	19403	1
[	Sb	121	0.021	ug/L	0.002	9	346	637	3
[	Sb	123	0.024	ug/L	0.001	4	257	504	0
[	Ba	135	61.345	ug/L	1.713	2	17	237238	1
[	Ba	137	61.253	ug/L	1.829	2	19	409724	1
[>	Tb	159		ug/L			1001666	1017643	0
[	Tl	205	0.064	ug/L	0.003	4	206	2245	3
[	Pb	208	81.371	ug/L	0.396	0	157	3315747	0
[	Bi	209		ug/L			2293546	2360112	0
[	Th	232	0.876	ug/L	0.014	1	1512	35807	1
[	U	238	0.130	ug/L	0.002	1	29	5484	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 21:51:17

Be

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	732781	1
[	Be	9	0.563	ug/L	0.028	4	8	1462	4
	C	13		ug/L			63994	102815	2
	Cl	37		ug/L			3532807	4034005	1
[>	Sc	45		ug/L			674505	941190	1
[	V	51	21.236	ug/L	0.841	3	6013	404030	2
[	V-1	51	20.985	ug/L	0.808	3	387	394720	2
[	Cr	52	18.692	ug/L	0.398	2	17778	325769	1
[	Cr	53	17.950	ug/L	0.282	1	210	33834	1
[	Mn	55	890.596	ug/L	2.383	0	314	19740142	1
[	Co	59	7.706	ug/L	0.184	2	73	131049	1
[>	Ge	72		ug/L			426798	474820	0
[	Ni	60	21.530	ug/L	0.209	0	26	63734	0
[	Ni	62	23.225	ug/L	0.524	2	48	9835	2
[	Cu	63	27.051	ug/L	0.260	0	88	179853	1
[	Cu	65	27.555	ug/L	0.652	2	42	82279	1
[	Zn	66	429.840	ug/L	6.816	1	141	745736	1
[	Zn	67	408.377	ug/L	6.635	1	21	119568	1
[	Zn	68	430.714	ug/L	2.068	0	144	540679	0
[	As	75	14.448	ug/L	0.024	0	220	23449	0
[	As-1	75	14.433	ug/L	0.049	0	9153	33436	0
[	Se	82	0.044	ug/L	0.012	27	-1	5	37
[	Se	78	0.578	ug/L	0.176	30	9315	10625	0
[	Mo	98	0.645	ug/L	0.034	5	35	2744	4
	Y	89		ug/L			271155	412154	1
	Kr	83		ug/L			529	832	2
[>	In	115		ug/L			840042	879172	0
[	Ag	107	0.320	ug/L	0.003	0	32	3705	0
[	Cd	111	8.527	ug/L	0.157	1	72	37416	1
[	Cd	114	8.444	ug/L	0.108	1	44	91936	0
[	Sb	121	0.197	ug/L	0.007	3	346	3012	2
[	Sb	123	0.187	ug/L	0.009	4	257	2180	3
[	Ba	135	299.187	ug/L	4.418	1	17	1182872	0
[	Ba	137	319.752	ug/L	2.833	0	19	2186843	0
[>	Tb	159		ug/L			1001666	1019372	0
[	Tl	205	0.332	ug/L	0.006	1	206	10799	1
[	Pb	208	426.751	ug/L	3.533	0	157	17417691	0
[	Bi	209		ug/L			2293546	2290313	1
[	Th	232	4.560	ug/L	0.089	1	1512	180303	1
[	U	238	0.632	ug/L	0.011	1	29	26610	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 16, 2012 21:56:28
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\111612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	729068	0
	Be	9	0.124	ug/L	0.008	6	8	327	6
	C	13		ug/L			63994	82474	1
	Cl	37		ug/L			3532807	4056650	5
>	Sc	45		ug/L			674505	900240	2
	V	51	5.504	ug/L	0.244	4	6013	106058	1
	V-1	51	5.491	ug/L	0.185	3	387	99154	0
	Cr	52	7.539	ug/L	0.357	4	17778	139755	1
	Cr	53	7.446	ug/L	0.180	2	210	13584	1
	Mn	55	250.870	ug/L	5.013	1	314	5317839	2
	Co	59	2.069	ug/L	0.012	0	73	33721	2
>	Ge	72		ug/L			426798	476190	3
	Ni	60	5.663	ug/L	0.217	3	26	16822	1
	Ni	62	5.875	ug/L	0.145	2	48	2536	5
	Cu	63	7.108	ug/L	0.427	6	88	47409	3
	Cu	65	7.168	ug/L	0.256	3	42	21485	1
	Zn	66	101.396	ug/L	5.705	5	141	176349	2
	Zn	67	93.871	ug/L	2.715	2	21	27567	0
	Zn	68	99.996	ug/L	2.055	2	144	125960	0
	As	75	5.316	ug/L	0.205	3	220	8801	0
	As-1	75	5.393	ug/L	0.337	6	9153	18915	0
	Se	82	0.067	ug/L	0.035	52	-1	9	63
	Se	78	0.438	ug/L	0.524	119	9315	10588	0
	Mo	98	0.141	ug/L	0.005	3	35	630	2
	Y	89		ug/L			271155	318331	0
	Kr	83		ug/L			529	612	1
>	In	115		ug/L			840042	871274	0
	Ag	107	0.082	ug/L	0.003	4	32	971	3
	Cd	111	2.258	ug/L	0.038	1	72	9878	2
	Cd	114	2.241	ug/L	0.038	1	44	24218	1
	Sb	121	0.022	ug/L	0.002	8	346	655	3
	Sb	123	0.022	ug/L	0.001	5	257	494	2
	Ba	135	65.875	ug/L	0.473	0	17	258126	0
	Ba	137	66.169	ug/L	0.151	0	19	448507	0
>	Tb	159		ug/L			1001666	1005830	0
	Tl	205	0.079	ug/L	0.002	2	206	2686	2
	Pb	208	104.358	ug/L	0.392	0	157	4202952	0
	Bi	209		ug/L			2293546	2339608	1
	Th	232	1.355	ug/L	0.019	1	1512	53936	0
	U	238	0.120	ug/L	0.002	1	29	5023	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 A REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 16, 2012 22:00:36
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	707749	3
	Be	9	0.010	ug/L	0.003	30	8	33	24
	C	13		ug/L			63994	75068	2
	Cl	37		ug/L			3532807	4072419	3
>	Sc	45		ug/L			674505	849447	2
	V	51	0.720	ug/L	0.031	4	6013	19678	0
	V-1	51	0.757	ug/L	0.002	0	387	13332	2
	Cr	52	2.052	ug/L	0.099	4	17778	52194	0
	Cr	53	2.137	ug/L	0.046	2	210	3868	3
	Mn	55	62.963	ug/L	1.397	2	314	1260138	3
	Co	59	0.339	ug/L	0.009	2	73	5283	1
>	Ge	72		ug/L			426798	473612	1
	Ni	60	2.048	ug/L	0.057	2	26	6074	4
	Ni	62	1.934	ug/L	0.075	3	48	865	2
	Cu	63	10.785	ug/L	0.276	2	88	71566	1
	Cu	65	11.151	ug/L	0.145	1	42	33240	1
	Zn	66	171.228	ug/L	4.367	2	141	296339	1
	Zn	67	153.732	ug/L	5.490	3	21	44896	2
	Zn	68	167.814	ug/L	2.220	1	144	210196	0
	As	75	0.217	ug/L	0.019	8	220	591	3
	As-1	75	0.355	ug/L	0.103	28	9153	10726	0
	Se	82	0.029	ug/L	0.088	300	-1	2	533
	Se	78	0.511	ug/L	0.369	72	9315	10566	0
	Mo	98	0.890	ug/L	0.016	1	35	3761	0
	Y	89		ug/L			271155	303335	0
	Kr	83		ug/L			529	580	3
>	In	115		ug/L			840042	846370	0
	Ag	107	-0.000	ug/L	0.000	56	32	28	9
	Cd	111	0.434	ug/L	0.009	2	72	1901	1
	Cd	114	0.438	ug/L	0.005	1	44	4629	0
	Sb	121	0.315	ug/L	0.004	1	346	4436	0
	Sb	123	0.309	ug/L	0.007	2	257	3304	1
	Ba	135	12.135	ug/L	0.199	1	17	46203	1
	Ba	137	12.083	ug/L	0.057	0	19	79576	0
>	Tb	159		ug/L			1001666	1005840	0
	Tl	205	0.000	ug/L	0.001	150	206	222	10
	Pb	208	25.081	ug/L	0.253	1	157	1010257	1
	Bi	209		ug/L			2293546	2344164	0
	Th	232	-0.003	ug/L	0.001	41	1512	1415	3
	U	238	0.019	ug/L	0.000	1	29	828	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 22:04:44
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			681751	709507	2
[	Be	9	52.898	ug/L	0.923	1	8	132116	0
	C	13		ug/L			63994	76102	0
	Cl	37		ug/L			3532807	4070574	5
[>	Sc	45		ug/L			674505	858443	2
[	V	51	46.907	ug/L	1.569	3	6013	804492	1
[	V-1	51	46.608	ug/L	1.570	3	387	798765	0
[	Cr	52	46.260	ug/L	0.398	0	17778	701976	2
[	Cr	53	45.314	ug/L	0.417	0	210	77492	2
[	Mn	55	44.539	ug/L	1.001	2	314	900419	1
[	Co	59	43.713	ug/L	1.248	2	73	677311	0
[>	Ge	72		ug/L			426798	467260	3
[	Ni	60	49.074	ug/L	1.867	3	26	142820	1
[	Ni	62	50.388	ug/L	2.186	4	48	20917	0
[	Cu	63	50.049	ug/L	1.295	2	88	327186	1
[	Cu	65	49.927	ug/L	2.376	4	42	146545	2
[	Zn	66	50.437	ug/L	0.920	1	141	86218	1
[	Zn	67	49.481	ug/L	1.968	3	21	14265	1
[	Zn	68	50.369	ug/L	1.092	2	144	62332	1
[	As	75	50.360	ug/L	1.814	3	220	79773	0
[	As-1	75	50.653	ug/L	1.650	3	9153	90276	0
[	Se	82	49.832	ug/L	2.430	4	-1	8630	2
[	Se	78	50.826	ug/L	1.803	3	9315	32848	1
[	Mo	98	47.521	ug/L	1.534	3	35	195945	0
	Y	89		ug/L			271155	292533	1
	Kr	83		ug/L			529	585	1
[>	In	115		ug/L			840042	830375	1
[	Ag	107	48.356	ug/L	0.788	1	32	523878	1
[	Cd	111	49.874	ug/L	0.659	1	72	206358	0
[	Cd	114	50.295	ug/L	0.644	1	44	516991	0
[	Sb	121	48.638	ug/L	0.571	1	346	619831	0
[	Sb	123	48.552	ug/L	0.383	0	257	469869	0
[	Ba	135	49.255	ug/L	0.820	1	17	183931	0
[	Ba	137	48.680	ug/L	1.102	2	19	314430	1
[>	Tb	159		ug/L			1001666	997493	0
[	Tl	205	47.599	ug/L	0.434	0	206	1487675	1
[	Pb	208	49.028	ug/L	0.321	0	157	1958285	0
[	Bi	209		ug/L			2293546	2265266	0
[	Th	232	47.351	ug/L	0.531	1	1512	1818064	0
[	U	238	47.384	ug/L	0.244	0	29	1951593	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 16, 2012 22:11:37
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\111612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			681751	703285	1
	Be	9	0.003	ug/L	0.003	96	8	15	38
	C	13		ug/L			63994	75815	3
	Cl	37		ug/L			3532807	3946221	0
>	Sc	45		ug/L			674505	827593	3
	V	51	-0.004	ug/L	0.017	470	6013	7311	1
	V-1	51	-0.023	ug/L	0.002	7	387	97	27
	Cr	52	-0.024	ug/L	0.064	267	17778	21454	1
	Cr	53	-0.085	ug/L	0.009	10	210	117	9
	Mn	55	0.003	ug/L	0.002	77	314	447	9
	Co	59	0.001	ug/L	0.002	222	73	106	35
>	Ge	72		ug/L			426798	455610	0
	Ni	60	-0.001	ug/L	0.004	378	26	25	43
	Ni	62	-0.039	ug/L	0.018	46	48	36	19
	Cu	63	-0.000	ug/L	0.001	225	88	91	7
	Cu	65	-0.000	ug/L	0.004	2105	42	44	26
	Zn	66	0.001	ug/L	0.007	1061	141	152	7
	Zn	67	0.011	ug/L	0.012	102	21	26	13
	Zn	68	-0.006	ug/L	0.031	492	144	146	26
	As	75	-0.016	ug/L	0.012	73	220	210	8
	As-1	75	0.326	ug/L	0.068	20	9153	10274	1
	Se	82	-0.058	ug/L	0.015	26	-1	-11	22
	Se	78	1.217	ug/L	0.262	21	9315	10473	1
	Mo	98	0.002	ug/L	0.002	139	35	45	22
	Y	89		ug/L			271155	289183	1
	Kr	83		ug/L			529	600	2
>	In	115		ug/L			840042	816135	0
	Ag	107	0.000	ug/L	0.000	196	32	34	14
	Cd	111	0.000	ug/L	0.002	893	72	71	10
	Cd	114	0.000	ug/L	0.001	1996	44	44	19
	Sb	121	0.029	ug/L	0.005	18	346	700	9
	Sb	123	0.032	ug/L	0.005	16	257	554	8
	Ba	135	0.001	ug/L	0.002	228	17	20	36
	Ba	137	0.002	ug/L	0.001	35	19	29	12
>	Tb	159		ug/L			1001666	971497	0
	Tl	205	-0.000	ug/L	0.002	603	206	187	39
	Pb	208	0.003	ug/L	0.000	16	157	254	7
	Bi	209		ug/L			2293546	2281248	0
	Th	232	0.071	ug/L	0.002	2	1512	4126	0
	U	238	0.001	ug/L	0.000	37	29	77	23

End
PCS

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 1 **of** 8

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			2992-6
		5			2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{53}Cr, ^{62}Ni, high; ^{67}Zn 1201
		LR200			
		LR300			
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VR32 A-L	SWN	100	Ag
		A	↓	20	↓
		ADUP	↓	↓	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 2 **of** 8

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR32 ASPK	SWN	20	Ag
		B			
		C			
		D			
		E			
		F			
		G			
		CCV3			
		CCB3			
		VR33 MBI	SWN	20	Ag
		MBISPK			
		VR32 H			
		I			
		J			
		K			
		L		100	V Cr Co
		L		20	Ag
		VR33 C		100	V Cr Co
		C		20	Ag
		CCV4			
		CCB4			
		VR33 A-L	SWN	100	Ag
		A		20	
		ADUP			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 3 **of** 8

All corrections made by analyst unless otherwise noted. 11.20.12 MJJ

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR33 ASPK	SWN	20 ✓	Ag
		B			
		D			
		E			
		F			
		G			
		H			
		CCV5			
		CCB5			
		VR34 A-L	SWN	500 ✓	Pb Zn
		A		100	
		ADUP		✓	
		ASPK		✓	STL
		B		20	Ag
		C			
		VR33 I			
		J			
		K			
		L			
		CCV6			
		CCB6			
		VR34 MB1	SWN	20	Ag
		MB1SPK		1 ✓	
		A-L		100 ✓	Be

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 4 **of** 8

All corrections made by analyst unless otherwise noted. 11.20.12 MJJ

Edit Label	Delete Data	ARI Sample ID		Prep Code	Dilution	Comments
		VR34	A	SWN	20	Ag Be
			ADUP		✓	
			ASPK		✓	
			D			
			E			
			F		100	Pb Zn
			F		20	Be. Ag
		CCV7				
		CCB7				
		VR73	MB1	REN	2	Ag
			MB1SPK			
		VR34	G	SWN	20	Ag. Be
			H			Ag
			I			
			J			
			K			
			L			
		VR73	A	REN		Mn
			C			
		CCV8				
		CCB8				As2 high
		VR36	MB1	SWN	20	
			MB1SPK		✓	
			A-L		100 ✓	nr Pb

11-21

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11.19.12

M2 Mexico	Analyst MJS 11.20.12	Peer JT 11-21	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	✓	✓	L
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See log
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VR36, VR37
Matrix Duplicates	✓	✓	VR36
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 VR36, VR37

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, November 19, 2012 12:04:58
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1301
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	4146.4	4146.431	47.579	1.1	Standard
	Mg	24.0	43116.5	43116.525	277.372	0.6	Standard
	In	114.9	86325.8	86325.763	322.961	0.4	Standard
	Pb	208.0	34073.0	34072.983	125.163	0.4	Standard
	U	238.1	62712.8	62712.771	575.428	0.9	Standard
⌈	CeO	155.9	2052.3	0.024	0.001	5.0	Standard
|>	Ce	139.9	84445.8	84445.846	289.352	0.3	Standard
⌊	Ce++	70.0	1159.2	0.014	0.001	3.9	Standard
	Bkgd	220.0	0.1	0.100	0.149	149.1	Standard

Current Conditions File Data

Current Value	Description
1.09	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
1250.00	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

VR34 : 00495

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: 11/19/2012 12:04:56 PM
End Time: 11/19/2012 12:07:32 PM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4146.43
Obtained Intensity (Mg 23.985): 43116.52
Obtained Intensity (In 114.904): 86325.76
Obtained Intensity (Pb 207.977): 34072.98
Obtained Intensity (U 238.05): 62712.77
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.024 (=2052.32 / 84445.85)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1159.21 / 84445.85)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\DUALDET.swz

tart Time: 11/19/2012 11:27:55 AM
nd Time: 11/19/2012 11:30:48 AM

etector Voltages - [Passed]
Pulse Stage Voltage - [Passed] Optimum value(s): 1250
Analog Stage Voltage - [Passed] Optimum value(s): -1675
Pulse Stage Voltage (Fine-tune) - [Passed] Optimum value(s): 1250

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/19/2012 11:57:57 AM
End Time: 11/19/2012 12:00:10 PM

Mass 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 (0.7/0.704)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.709)

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/19/2012 12:00:20 PM
End Time: 11/19/2012 12:04:31 PM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.992; Intercept = -12.11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:46:25
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				923208	0
	Be	9		ug/L				23	24
	C	13		ug/L				82469	2
	Cl	37		ug/L				4833777	2
>	Sc	45		ug/L				1144296	0
	V	51		ug/L				9450	1
	V-1	51		ug/L				48	5
	Cr	52		ug/L				27897	1
	Cr	53		ug/L				145	4
	Mn	55		ug/L				487	5
	Co	59		ug/L				76	23
>	Ge	72		ug/L				608948	1
	Ni	60		ug/L				28	17
	Ni	62		ug/L				64	12
	Cu	63		ug/L				101	7
	Cu	65		ug/L				39	18
	Zn	66		ug/L				991	6
	Zn	67		ug/L				141	4
	Zn	68		ug/L				706	3
	As	75		ug/L				318	3
	As-1	75		ug/L				12623	0
	Se	82		ug/L				-10	161
	Se	78		ug/L				12864	0
	Mo	98		ug/L				28	23
	Y	89		ug/L				406158	1
	Kr	83		ug/L				794	5
>	In	115		ug/L				1093664	0
	Ag	107		ug/L				42	23
	Cd	111		ug/L				115	7
	Cd	114		ug/L				65	11
	Sb	121		ug/L				182	13
	Sb	123		ug/L				151	14
	Ba	135		ug/L				15	20
	Ba	137		ug/L				26	9
>	Tb	159		ug/L				1253683	0
	Tl	205		ug/L				128	15
	Pb	208		ug/L				347	1
	Bi	209		ug/L				2594753	0
	Th	232		ug/L				1408	3
	U	238		ug/L				31	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:50:34
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	916656	0
[	Be	9	0.200	ug/L	0.001	0	23	690	1
	C	13		ug/L			82469	86121	3
	Cl	37		ug/L			4833777	4879558	1
[>	Sc	45		ug/L			1144296	1138804	1
[	V	51	0.200	ug/L	0.006	3	9450	14094	1
[	V-1	51	0.200	ug/L	0.008	3	48	4585	2
[	Cr	52	0.500	ug/L	0.033	6	27897	37414	1
[	Cr	53	0.500	ug/L	0.032	6	145	1187	4
[	Mn	55	0.500	ug/L	0.004	0	487	13129	1
[	Co	59	0.200	ug/L	0.005	2	76	3875	1
[>	Ge	72		ug/L			608948	597664	0
[	Ni	60	0.500	ug/L	0.006	1	28	2114	0
[	Ni	62	0.500	ug/L	0.044	8	64	319	6
[	Cu	63	0.500	ug/L	0.006	1	101	4905	0
[	Cu	65	0.500	ug/L	0.008	1	39	2155	2
[	Zn	66	4.000	ug/L	0.089	2	991	10456	1
[	Zn	67	4.000	ug/L	0.066	1	141	1575	2
[	Zn	68	4.000	ug/L	0.075	1	706	7362	0
[	As	75	0.200	ug/L	0.007	3	318	808	1
[	As-1	75	0.200	ug/L	0.019	9	12623	12962	0
[	Se	82	0.500	ug/L	0.014	2	-10	140	2
[	Se	78	0.500	ug/L	0.036	7	12864	13072	0
[	Mo	98	0.200	ug/L	0.012	6	28	1200	6
	Y	89		ug/L			406158	409551	1
	Kr	83		ug/L			794	763	2
[>	In	115		ug/L			1093664	1090207	1
[	Ag	107	0.200	ug/L	0.002	1	42	3242	1
[	Cd	111	0.100	ug/L	0.007	7	115	698	6
[	Cd	114	0.100	ug/L	0.004	3	65	1460	3
[	Sb	121	0.200	ug/L	0.005	2	182	3279	1
[	Sb	123	0.200	ug/L	0.007	3	151	2451	1
[	Ba	135	0.500	ug/L	0.020	3	15	2381	3
[	Ba	137	0.500	ug/L	0.011	2	26	4228	1
[>	Tb	159		ug/L			1253683	1242355	1
[	Tl	205	0.200	ug/L	0.002	0	128	7365	1
[	Pb	208	0.100	ug/L	0.003	2	347	5270	1
[	Bi	209		ug/L			2594753	2571936	0
[	Th	232	0.200	ug/L	0.011	5	1408	8376	4
[	U	238	0.200	ug/L	0.005	2	31	9772	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:54:44
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	933022	1
[	Be	9	10.000	ug/L	0.156	1	23	33700	0
	C	13		ug/L			82469	90005	1
	Cl	37		ug/L			4833777	4848340	1
[>	Sc	45		ug/L			1144296	1185233	0
[	V	51	9.999	ug/L	0.146	1	9450	224847	1
[	V-1	51	10.000	ug/L	0.150	1	48	215611	1
[	Cr	52	9.998	ug/L	0.204	2	27897	216834	2
[	Cr	53	10.000	ug/L	0.052	0	145	21548	0
[	Mn	55	9.999	ug/L	0.119	1	487	255385	0
[	Co	59	10.000	ug/L	0.167	1	76	189731	1
[>	Ge	72		ug/L			608948	614297	2
[	Ni	60	9.999	ug/L	0.343	3	28	41277	2
[	Ni	62	10.002	ug/L	0.440	4	64	5796	1
[	Cu	63	9.998	ug/L	0.340	3	101	92665	0
[	Cu	65	9.999	ug/L	0.249	2	39	41708	0
[	Zn	66	9.957	ug/L	0.183	1	991	24632	0
[	Zn	67	10.065	ug/L	0.287	2	141	4011	1
[	Zn	68	9.966	ug/L	0.198	1	706	17432	0
[	As	75	9.999	ug/L	0.157	1	318	22230	1
[	As-1	75	9.998	ug/L	0.282	2	12623	33705	0
[	Se	82	9.996	ug/L	0.227	2	-10	2688	1
[	Se	78	9.986	ug/L	0.614	6	12864	18883	0
[	Mo	98	10.000	ug/L	0.238	2	28	59088	0
	Y	89		ug/L			406158	417433	0
	Kr	83		ug/L			794	783	2
[>	In	115		ug/L			1093664	1113587	1
[	Ag	107	10.000	ug/L	0.200	2	42	161065	0
[	Cd	111	10.000	ug/L	0.133	1	115	56991	0
[	Cd	114	10.000	ug/L	0.167	1	65	138401	0
[	Sb	121	10.000	ug/L	0.202	2	182	161865	0
[	Sb	123	10.000	ug/L	0.221	2	151	123040	0
[	Ba	135	10.000	ug/L	0.092	0	15	48834	1
[	Ba	137	10.000	ug/L	0.205	2	26	84620	0
[>	Tb	159		ug/L			1253683	1282920	1
[	Tl	205	10.000	ug/L	0.220	2	128	363752	0
[	Pb	208	10.000	ug/L	0.102	1	347	477727	0
[	Bi	209		ug/L			2594753	2636223	1
[	Th	232	10.001	ug/L	0.251	2	1408	447555	0
[	U	238	10.000	ug/L	0.082	0	31	495377	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:59:06
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	937495	2
	Be	9	19.889	ug/L	0.626	3	23	65838	0
	C	13		ug/L			82469	83760	1
	Cl	37		ug/L			4833777	5015006	1
>	Sc	45		ug/L			1144296	1203031	2
	V	51	19.927	ug/L	0.871	4	9450	438457	2
	V-1	51	19.937	ug/L	0.796	3	48	430653	2
	Cr	52	19.882	ug/L	0.726	3	27897	399736	1
	Cr	53	19.915	ug/L	0.482	2	145	42674	1
	Mn	55	19.903	ug/L	0.250	1	487	505631	0
	Co	59	19.922	ug/L	0.365	1	76	377606	1
>	Ge	72		ug/L			608948	619427	0
	Ni	60	19.872	ug/L	0.586	2	28	80662	2
	Ni	62	19.978	ug/L	0.244	1	64	11568	1
	Cu	63	19.942	ug/L	0.491	2	101	184224	1
	Cu	65	20.000	ug/L	0.326	1	39	84104	0
	Zn	66	19.915	ug/L	0.206	1	991	48000	1
	Zn	67	20.172	ug/L	0.803	3	141	8202	3
	Zn	68	19.995	ug/L	0.271	1	706	34526	0
	As	75	19.962	ug/L	0.565	2	318	44100	2
	As-1	75	19.960	ug/L	0.629	3	12623	54733	1
	Se	82	19.945	ug/L	0.211	1	-10	5362	0
	Se	78	19.937	ug/L	0.371	1	12864	24837	0
	Mo	98	19.937	ug/L	0.313	1	28	117336	2
	Y	89		ug/L			406158	415025	1
	Kr	83		ug/L			794	787	2
>	In	115		ug/L			1093664	1107288	0
	Ag	107	19.960	ug/L	0.354	1	42	317113	0
	Cd	111	19.974	ug/L	0.345	1	115	112498	0
	Cd	114	20.013	ug/L	0.131	0	65	276096	0
	Sb	121	19.987	ug/L	0.158	0	182	320751	0
	Sb	123	19.979	ug/L	0.469	2	151	243251	1
	Ba	135	19.995	ug/L	0.081	0	15	96982	0
	Ba	137	19.998	ug/L	0.357	1	26	168205	0
>	Tb	159		ug/L			1253683	1280440	0
	Tl	205	19.969	ug/L	0.161	0	128	720533	0
	Pb	208	19.963	ug/L	0.052	0	347	944606	0
	Bi	209		ug/L			2594753	2596363	0
	Th	232	20.056	ug/L	0.181	0	1408	904639	0
	U	238	20.006	ug/L	0.139	0	31	990473	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:03:38
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	911518 ✓	1
	Be	9	50.045	ug/L	2.119	4	23	161803	3
	C	13		ug/L			82469	83061	1
	Cl	37		ug/L			4833777	5004130	5
>	Sc	45		ug/L			1144296	1184686 ✓	0
	V	51	50.120	ug/L	0.361	0	9450	1084559	0
	V-1	51	50.086	ug/L	0.412	0	48	1074978	0
	Cr	52	49.887	ug/L	0.094	0	27897	934278	0
	Cr	53	49.773	ug/L	0.418	0	145	102509	0
	Mn	55	49.918	ug/L	0.896	1	487	1238108	1
	Co	59	49.943	ug/L	0.602	1	76	927044	1
>	Ge	72		ug/L			608948	607610 ✓	1
	Ni	60	49.876	ug/L	1.024	2	28	196115	1
	Ni	62	50.026	ug/L	1.149	2	64	28384	1
	Cu	63	49.887	ug/L	1.101	2	101	446839	0
	Cu	65	49.734	ug/L	1.230	2	39	199762	1
	Zn	66	49.933	ug/L	0.671	1	991	115798	0
	Zn	67	49.713	ug/L	1.031	2	141	19096	1
	Zn	68	49.986	ug/L	0.603	1	706	83500	2
	As	75	49.938	ug/L	1.770	3	318	107048	1
	As-1	75	50.045	ug/L	1.759	3	12623	116073	1
	Se	82	49.796	ug/L	1.538	3	-10	12880	1
	Se	78	50.169	ug/L	1.464	2	12864	42334	0
	Mo	98	49.962	ug/L	1.784	3	28	287164	1
	Y	89		ug/L			406158	412798	2
	Kr	83		ug/L			794	791	2
>	In	115		ug/L			1093664	1079743 ✓	1
	Ag	107	49.877	ug/L	2.008	4	42	763150	3
	Cd	111	49.824	ug/L	0.674	1	115	268740	0
	Cd	114	49.985	ug/L	1.102	2	65	671190	0
	Sb	121	49.988	ug/L	1.069	2	182	780941	0
	Sb	123	50.068	ug/L	0.954	1	151	598285	0
	Ba	135	50.121	ug/L	1.315	2	15	239860	1
	Ba	137	50.110	ug/L	0.856	1	26	415503	0
>	Tb	159		ug/L			1253683	1247857 ✓	0
	Tl	205	49.987	ug/L	0.044	0	128	1755322	0
	Pb	208	50.066	ug/L	0.824	1	347	2323392	0
	Bi	209		ug/L			2594753	2495502	0
	Th	232	50.402	ug/L	0.938	1	1408	2306099	1
	U	238	50.285	ug/L	0.896	1	31	2497066	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:09:51
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	891313	0
	Be	9	99.947	ug/L	0.244	0	23	315511	1
	C	13		ug/L			82469	84738	3
	Cl	37		ug/L			4833777	4953154	4
>	Sc	45		ug/L			1144296	1167146	1
	V	51	100.712	ug/L	0.245	0	9450	2189113	1
	V-1	51	100.754	ug/L	0.568	0	48	2185272	1
	Cr	52	100.321	ug/L	1.200	1	27897	1841514	1
	Cr	53	100.463	ug/L	1.519	1	145	206862	0
	Mn	55	100.840	ug/L	2.009	1	487	2534283	1
	Co	59	100.319	ug/L	0.762	0	76	1854091	0
>	Ge	72		ug/L			608948	596637	0
	Ni	60	99.944	ug/L	0.886	0	28	385176	0
	Ni	62	99.733	ug/L	2.716	2	64	55023	2
	Cu	63	99.895	ug/L	1.732	1	101	875624	1
	Cu	65	99.356	ug/L	0.798	0	39	383683	0
	Zn	66	99.899	ug/L	0.507	0	991	225790	0
	Zn	67	100.202	ug/L	3.382	3	141	37918	3
	Zn	68	99.390	ug/L	0.979	0	706	159140	0
	As	75	99.775	ug/L	0.281	0	318	208226	0
	As-1	75	100.010	ug/L	0.095	0	12623	215568	0
	Se	82	99.169	ug/L	0.106	0	-10	24527	0
	Se	78	99.962	ug/L	0.786	0	12864	70265	1
	Mo	98	99.697	ug/L	0.955	0	28	557227	0
	Y	89		ug/L			406158	413954	1
	Kr	83		ug/L			794	827	5
>	In	115		ug/L			1093664	1074124	0
	Ag	107	99.437	ug/L	0.075	0	42	1485876	0
	Cd	111	99.398	ug/L	0.423	0	115	522801	0
	Cd	114	99.030	ug/L	1.494	1	65	1281577	0
	Sb	121	99.740	ug/L	0.719	0	182	1536871	0
	Sb	123	99.505	ug/L	0.866	0	151	1163696	0
	Ba	135	99.804	ug/L	1.250	1	15	472155	0
	Ba	137	99.870	ug/L	0.938	0	26	820330	0
>	Tb	159		ug/L			1253683	1263879	0
	Tl	205	99.748	ug/L	0.778	0	128	3517940	0
	Pb	208	99.382	ug/L	1.047	1	347	4576949	0
	Bi	209		ug/L			2594753	2422857	0
	Th	232	99.471	ug/L	0.611	0	1408	4528886	0
	U	238	99.102	ug/L	1.179	1	31	4840021	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:16:44
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:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			923208	904911	0
Be	9	0.003	ug/L	0.006	212	23	31	56
C	13		ug/L			82469	82087	1
Cl	37		ug/L			4833777	4891658	5
Sc	45		ug/L			1144296	1137530	2
V	51	0.012	ug/L	0.012	99	9450	9645	0
V-1	51	0.003	ug/L	0.004	131	48	116	77
Cr	52	0.033	ug/L	0.043	131	27897	28298	0
Cr	53	0.003	ug/L	0.004	143	145	150	2
Mn	55	0.003	ug/L	0.005	159	487	554	20
Co	59	0.002	ug/L	0.004	207	76	109	64
Ge	72		ug/L			608948	611501	1
Ni	60	0.003	ug/L	0.002	73	28	40	22
Ni	62	0.408	ug/L	0.171	41	64	295	34
Cu	63	0.035	ug/L	0.011	31	101	420	25
Cu	65	0.005	ug/L	0.001	30	39	59	11
Zn	66	-0.000	ug/L	0.020	879230	991	994	3
Zn	67	0.000	ug/L	0.016	6982	141	142	4
Zn	68	0.013	ug/L	0.042	319	706	730	7
As	75	-0.015	ug/L	0.008	50	318	287	4
As-1	75	-0.100	ug/L	0.177	176	12623	12464	1
Se	82	-0.021	ug/L	0.044	205	-10	-15	70
Se	78	-0.352	ug/L	0.605	171	12864	12706	1
Mo	98	0.020	ug/L	0.010	50	28	142	42
Y	89		ug/L			406158	400033	1
Kr	83		ug/L			794	773	4
In	115		ug/L			1093664	1082037	1
Ag	107	0.006	ug/L	0.007	125	42	125	82
Cd	111	0.005	ug/L	0.007	142	115	141	26
Cd	114	0.004	ug/L	0.006	147	65	114	62
Sb	121	0.105	ug/L	0.005	5	182	1816	5
Sb	123	0.101	ug/L	0.003	3	151	1341	1
Ba	135	0.008	ug/L	0.014	182	15	50	128
Ba	137	0.008	ug/L	0.013	153	26	93	110
Tb	159		ug/L			1253683	1223630	0
Tl	205	0.019	ug/L	0.007	35	128	769	29
Pb	208	0.006	ug/L	0.009	152	347	598	65
Bi	209		ug/L			2594753	2527112	0
Th	232	0.139	ug/L	0.003	2	1408	7520	1
U	238	0.007	ug/L	0.006	84	31	365	77

Sample Information

Sample Date/Time: Monday, November 19, 2012 13:16:44
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\111912.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**	0.004	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**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.022	0.50	10	20	50	100
Co	59	**1.0000**	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	**1.0000**	0.015	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	**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	**1.0000**	0.009	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**0.9999**	0.014	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**0.9998**	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**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.028	0.20	10	20	50	100
Pb	208	**0.9999**	0.036	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.036	0.20	10	20	50	100
U	238	**0.9998**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:23:37
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	903111	0
[	Be	9	51.117	ug/L	0.622	1	23	163510	1
	C	13		ug/L			82469	82989	2
	Cl	37		ug/L			4833777	4812852	2
[>	Sc	45		ug/L			1144296	1175181	1
[	V	51	51.435	ug/L	1.217	2	9450	1130276	1
[	V-1	51	51.240	ug/L	0.749	1	48	1118939	0
[	Cr	52	51.489	ug/L	1.729	3	27897	965406	2
[	Cr	53	50.829	ug/L	0.599	1	145	105465	1
[	Mn	55	50.716	ug/L	1.041	2	487	1283580	1
[	Co	59	50.784	ug/L	0.616	1	76	945168	1
[>	Ge	72		ug/L			608948	598084	1
[	Ni	60	52.750	ug/L	1.733	3	28	203725	1
[	Ni	62	51.489	ug/L	1.734	3	64	28496	1
[	Cu	63	52.429	ug/L	0.666	1	101	460669	0
[	Cu	65	52.275	ug/L	1.631	3	39	202300	1
[	Zn	66	51.456	ug/L	1.176	2	991	117026	1
[	Zn	67	51.109	ug/L	1.152	2	141	19451	2
[	Zn	68	50.855	ug/L	1.384	2	706	81948	2
[	As	75	53.304	ug/L	0.858	1	318	111639	1
[	As-1	75	52.475	ug/L	0.684	1	12623	119257	0
[	Se	82	80.661	ug/L	2.056	2	-10	19991	1
[	Se	78	80.195	ug/L	1.630	2	12864	58993	0
[	Mo	98	49.736	ug/L	0.966	1	28	278618	0
	Y	89		ug/L			406158	403288	2
	Kr	83		ug/L			794	795	5
[>	In	115		ug/L			1093664	1073418	0
[	Ag	107	51.463	ug/L	0.683	1	42	768584	2
[	Cd	111	50.824	ug/L	0.277	0	115	267206	1
[	Cd	114	51.560	ug/L	0.734	1	65	666824	0
[	Sb	121	50.588	ug/L	0.440	0	182	779044	0
[	Sb	123	50.247	ug/L	0.456	0	151	587292	0
[	Ba	135	51.509	ug/L	0.384	0	15	243525	0
[	Ba	137	51.210	ug/L	0.517	1	26	420376	0
[>	Tb	159		ug/L			1253683	1249512	0
[	Tl	205	50.951	ug/L	0.609	1	128	1776517	0
[	Pb	208	51.578	ug/L	0.119	0	347	2348564	0
[	Bi	209		ug/L			2594753	2479132	0
[	Th	232	53.164	ug/L	0.470	0	1408	2393602	0
[	U	238	52.927	ug/L	0.307	0	31	2555643	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:30:29
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	871631 ✓	0
	Be	9	-0.001	ug/L	0.001	61	23	18	13
	C	13		ug/L			82469	80983	1
	Cl	37		ug/L			4833777	4967047	4
>	Sc	45		ug/L			1144296	1115915 ✓	0
	V	51	0.018	ug/L	0.011	61	9450	9587	1
	V-1	51	0.001	ug/L	0.000	68	48	60	14
	Cr	52	0.063	ug/L	0.048	75	27897	28286	2
	Cr	53	0.004	ug/L	0.013	348	145	149	17
	Mn	55	-0.001	ug/L	0.001	38	487	443	3
	Co	59	-0.000	ug/L	0.001	312	76	69	20
>	Ge	72		ug/L			608948	593285 ✓	1
	Ni	60	-0.000	ug/L	0.001	211	28	26	9
	Ni	62	0.036	ug/L	0.035	97	64	82	23
	Cu	63	0.004	ug/L	0.002	50	101	130	11
	Cu	65	0.001	ug/L	0.001	71	39	43	8
	Zn	66	-0.226	ug/L	0.016	7	991	459	6
	Zn	67	-0.174	ug/L	0.031	17	141	73	16
	Zn	68	-0.187	ug/L	0.007	3	706	391	1
	As	75	-0.021	ug/L	0.010	48	318	265	7
	As-1	75	0.025	ug/L	0.082	325	12623	12348	0
	Se	82	0.022	ug/L	0.009	42	-10	-4	48
	Se	78	0.147	ug/L	0.287	194	12864	12617	0
	Mo	98	0.007	ug/L	0.001	18	28	67	9
	Y	89		ug/L			406158	389844	0
	Kr	83		ug/L			794	743	2
>	In	115		ug/L			1093664	1053146 ✓	0
	Ag	107	0.001	ug/L	0.000	52	42	51	11
	Cd	111	0.000	ug/L	0.001	950	115	112	5
	Cd	114	0.000	ug/L	0.000	137	65	67	9
	Sb	121	0.030	ug/L	0.007	23	182	628	16
	Sb	123	0.033	ug/L	0.007	21	151	520	15
	Ba	135	-0.000	ug/L	0.001	498	15	13	27
	Ba	137	-0.000	ug/L	0.000	455	26	24	12
>	Tb	159		ug/L			1253683	1184900 ✓	0
	Tl	205	0.004	ug/L	0.002	56	128	238	27
	Pb	208	-0.002	ug/L	0.000	16	347	243	6
	Bi	209		ug/L			2594753	2487094	1
	Th	232	0.066	ug/L	0.004	5	1408	4129	3
	U	238	0.002	ug/L	0.000	9	31	119	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:34:37
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	903770	1
	Be	9	49.292	ug/L	0.322	0	23	157786	1
	C	13		ug/L			82469	82319	0
	Cl	37		ug/L			4833777	5034935	2
>	Sc	45		ug/L			1144296	1164608	2
	V	51	49.502	ug/L	0.801	1	9450	1078385	1
	V-1	51	49.270	ug/L	0.817	1	48	1066159	0
	Cr	52	50.491	ug/L	1.135	2	27897	938707	0
	Cr	53	49.702	ug/L	1.513	3	145	102164	1
	Mn	55	50.238	ug/L	1.326	2	487	1259770	0
	Co	59	50.096	ug/L	2.710	5	76	923286	3
>	Ge	72		ug/L			608948	604825	1
	Ni	60	50.353	ug/L	0.844	1	28	196710	0
	Ni	62	48.935	ug/L	1.020	2	64	27406	3
	Cu	63	49.563	ug/L	0.776	1	101	440470	1
	Cu	65	49.974	ug/L	1.047	2	39	195622	1
	Zn	66	50.592	ug/L	1.292	2	991	116384	1
	Zn	67	49.942	ug/L	0.643	1	141	19226	1
	Zn	68	50.564	ug/L	0.999	1	706	82418	2
	As	75	49.244	ug/L	0.569	1	318	104334	0
	As-1	75	49.200	ug/L	0.783	1	12623	113865	1
	Se	82	49.798	ug/L	0.543	1	-10	12479	0
	Se	78	49.668	ug/L	1.030	2	12864	41815	0
	Mo	98	49.128	ug/L	0.707	1	28	278384	2
	Y	89		ug/L			406158	402489	0
	Kr	83		ug/L			794	786	2
>	In	115		ug/L			1093664	1081977	1
	Ag	107	48.455	ug/L	0.279	0	42	729392	1
	Cd	111	50.372	ug/L	0.362	0	115	266923	1
	Cd	114	49.864	ug/L	0.870	1	65	650000	0
	Sb	121	49.896	ug/L	0.659	1	182	774476	0
	Sb	123	49.713	ug/L	1.122	2	151	585601	0
	Ba	135	49.565	ug/L	0.563	1	15	236196	0
	Ba	137	49.424	ug/L	0.770	1	26	408907	0
>	Tb	159		ug/L			1253683	1244702	1
	Tl	205	49.671	ug/L	0.616	1	128	1725042	0
	Pb	208	49.921	ug/L	0.895	1	347	2263908	0
	Bi	209		ug/L			2594753	2485023	1
	Th	232	51.200	ug/L	0.961	1	1408	2295886	0
	U	238	51.258	ug/L	1.339	2	31	2464617	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:41:10
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	891325	1
	Be	9	0.000	ug/L	0.002	3213	23	23	22
	C	13		ug/L			82469	80818	0
	Cl	37		ug/L			4833777	4842105	2
>	Sc	45		ug/L			1144296	1125646	1
	V	51	0.013	ug/L	0.012	88	9450	9570	1
	V-1	51	0.001	ug/L	0.001	150	48	68	47
	Cr	52	0.042	ug/L	0.051	120	27897	28166	1
	Cr	53	0.001	ug/L	0.006	1062	145	144	7
	Mn	55	-0.000	ug/L	0.001	225	487	469	4
	Co	59	0.000	ug/L	0.001	325	76	81	27
>	Ge	72		ug/L			608948	593415	1
	Ni	60	0.001	ug/L	0.001	44	28	32	7
	Ni	62	0.021	ug/L	0.011	53	64	74	7
	Cu	63	0.003	ug/L	0.001	32	101	125	5
	Cu	65	0.002	ug/L	0.003	182	39	46	29
	Zn	66	-0.218	ug/L	0.007	3	991	477	2
	Zn	67	-0.184	ug/L	0.016	8	141	69	7
	Zn	68	-0.190	ug/L	0.021	10	706	387	7
	As	75	-0.008	ug/L	0.015	186	318	293	11
	As-1	75	0.059	ug/L	0.055	93	12623	12419	0
	Se	82	0.024	ug/L	0.090	372	-10	-3	578
	Se	78	0.235	ug/L	0.231	98	12864	12670	0
	Mo	98	0.007	ug/L	0.002	21	28	68	12
	Y	89		ug/L			406158	395355	2
	Kr	83		ug/L			794	754	6
>	In	115		ug/L			1093664	1067229	0
	Ag	107	0.000	ug/L	0.001	139	42	47	18
	Cd	111	0.002	ug/L	0.001	81	115	121	6
	Cd	114	-0.000	ug/L	0.001	2577	65	63	13
	Sb	121	0.054	ug/L	0.004	7	182	1006	6
	Sb	123	0.056	ug/L	0.007	12	151	795	10
	Ba	135	0.000	ug/L	0.002	568	15	16	48
	Ba	137	0.001	ug/L	0.003	258	26	36	75
>	Tb	159		ug/L			1253683	1205647	0
	Tl	205	0.010	ug/L	0.005	50	128	467	37
	Pb	208	-0.000	ug/L	0.004	38391	347	333	50
	Bi	209		ug/L			2594753	2504883	1
	Th	232	0.103	ug/L	0.005	4	1408	5830	3
	U	238	0.004	ug/L	0.003	72	31	202	61

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:45:18
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	893134 ✓	0
[	Be	9	0.199	ug/L	0.012	5	23	651	5
	C	13		ug/L			82469	83117	0
	Cl	37		ug/L			4833777	4902719	5
[>	Sc	45		ug/L			1144296	1124137 ✓	1
[	V	51	0.235	ug/L	0.023	9	9450	14182	2
[	V-1	51	0.216	ug/L	0.005	2	48	4557	1
[	Cr	52	0.578	ug/L	0.083	14	27897	37456	2
[	Cr	53	0.511	ug/L	0.016	3	145	1154	1
[	Mn	55	0.507	ug/L	0.010	1	487	12743	0
[	Co	59	0.208	ug/L	0.008	3	76	3770	5
[>	Ge	72		ug/L			608948	597789 ✓	0
[	Ni	60	0.505	ug/L	0.021	4	28	1976	3
[	Ni	62	0.483	ug/L	0.035	7	64	329	5
[	Cu	63	0.533	ug/L	0.009	1	101	4781	1
[	Cu	65	0.530	ug/L	0.005	1	39	2089	0
[	Zn	66	4.118	ug/L	0.010	0	991	10259	1
[	Zn	67	3.751	ug/L	0.123	3	141	1555	2
[	Zn	68	4.057	ug/L	0.160	3	706	7173	2
[	As	75	0.203	ug/L	0.018	8	318	736	4
[	As-1	75	0.184	ug/L	0.097	52	12623	12765	0
[	Se	82	0.568	ug/L	0.090	15	-10	130	16
[	Se	78	0.452	ug/L	0.334	73	12864	12889	0
[	Mo	98	0.193	ug/L	0.010	5	28	1108	6
	Y	89		ug/L			406158	387932	1
	Kr	83		ug/L			794	720	0
[>	In	115		ug/L			1093664	1069689 ✓	1
[	Ag	107	0.205	ug/L	0.008	3	42	3094	2
[	Cd	111	0.105	ug/L	0.002	1	115	665	1
[	Cd	114	0.107	ug/L	0.002	1	65	1439	0
[	Sb	121	0.208	ug/L	0.003	1	182	3364	0
[	Sb	123	0.204	ug/L	0.005	2	151	2527	2
[	Ba	135	0.497	ug/L	0.016	3	15	2358	2
[	Ba	137	0.506	ug/L	0.014	2	26	4163	2
[>	Tb	159		ug/L			1253683	1219587 ✓	1
[	Tl	205	0.210	ug/L	0.004	1	128	7284	1
[	Pb	208	0.107	ug/L	0.004	3	347	5075	2
[	Bi	209		ug/L			2594753	2520245	0
[	Th	232	0.200	ug/L	0.003	1	1408	10148	2
[	U	238	0.202	ug/L	0.002	1	31	9555	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:49:25
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	933240 ✓	2
	Be	9	0.002	ug/L	0.001	79	23	30	17
	C	13		ug/L			82469	161933	1
	Cl	37		ug/L			4833777	13649840	2
>	Sc	45		ug/L			1144296	1196251 ✓	0
	V	51	0.187	ug/L	0.050	26	9450	14016	7
	V-1	51	1.309	ug/L	0.042	3	48	29155	2
	Cr	52	0.621	ug/L	0.056	9	27897	40663	1
	Cr	53	4.402	ug/L	0.161	3	145	9436	3
	Mn	55	0.075	ug/L	0.004	4	487	2431	3
	Co	59	0.027	ug/L	0.002	9	76	595	8
>	Ge	72		ug/L			608948	596554 ✓	1
	Ni	60	0.417	ug/L	0.017	4	28	1634	2
	Ni	62	3.824	ug/L	0.748	19	64	2171	19
	Cu	63	1.162	ug/L	0.072	6	101	10282	6
	Cu	65	0.426	ug/L	0.009	2	39	1683	1
	Zn	66	1.325	ug/L	0.072	5	991	3951	2
	Zn	67	7.599	ug/L	0.185	2	141	3002	1
	Zn	68	0.854	ug/L	0.051	5	706	2053	3
	As	75	0.030	ug/L	0.073	244	318	375	41
	As-1	75	0.288	ug/L	0.077	26	12623	12949	1
	Se	82	-0.290	ug/L	0.070	24	-10	-81	22
	Se	78	1.045	ug/L	0.367	35	12864	13203	0
	Mo	98	426.179 ✓	ug/L	8.621	2	28	2381373	1
	Y	89		ug/L			406158	410661	1
	Kr	83		ug/L			794	1112	4
>	In	115		ug/L			1093664	1090181 ✓	0
	Ag	107	0.031	ug/L	0.001	2	42	509	2
	Cd	111	0.103	ug/L	0.001	0	115	664	0
	Cd	114	0.258	ug/L	0.011	4	65	3457	4
	Sb	121	0.089	ug/L	0.004	4	182	1580	4
	Sb	123	0.088	ug/L	0.003	3	151	1192	2
	Ba	135	0.061	ug/L	0.006	10	15	307	10
	Ba	137	0.050	ug/L	0.001	2	26	444	2
>	Tb	159		ug/L			1253683	1301318 ✓	0
	Tl	205	0.041	ug/L	0.001	2	128	1613	1
	Pb	208	0.037	ug/L	0.000	0	347	2121	0
	Bi	209		ug/L			2594753	2448513	0
	Th	232	0.275	ug/L	0.088	31	1408	14386	29
	U	238	0.017	ug/L	0.001	7	31	880	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:55:57
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	949106	1
[	Be	9	-0.001	ug/L	0.001	98	23	22	6
	C	13		ug/L			82469	163573	1
	Cl	37		ug/L			4833777	13472299	4
[>	Sc	45		ug/L			1144296	1183191	1
[	V	51	0.139	ug/L	0.197	142	9450	12798	33
[	V-1	51	1.313	ug/L	0.034	2	48	28915	1
[	Cr	52	20.777	ug/L	0.707	3	27897	409402	1
[	Cr	53	24.580 123'L	ug/L	0.561	2	145	51416	1
[	Mn	55	18.962	ug/L	0.468	2	487	483444	1
[	Co	59	19.414	ug/L	0.598	3	76	363711	1
[>	Ge	72		ug/L			608948	582334	2
[	Ni	60	20.631	ug/L	0.605	2	28	77584	0
[	Ni	62	24.400 122'L	ug/L	0.644	2	64	13190	4
[	Cu	63	20.840	ug/L	0.408	1	101	178325	1
[	Cu	65	20.444	ug/L	0.646	3	39	77041	0
[	Zn	66	19.923	ug/L	1.212	6	991	44661	3
[	Zn	67	24.004 120'L	ug/L	1.174	4	141	8961	3
[	Zn	68	18.896	ug/L	0.630	3	706	30060	0
[	As	75	19.324	ug/L	0.577	2	318	39585	0
[	As-1	75	20.242	ug/L	0.731	3	12623	52186	0
[	Se	82	-0.310	ug/L	0.054	17	-10	-84	15
[	Se	78	1.613	ug/L	0.486	30	12864	13206	1
[	Mo	98	433.367 ✓	ug/L	7.246	1	28	2363357	1
	Y	89		ug/L			406158	411500	0
	Kr	83		ug/L			794	1091	4
[>	In	115		ug/L			1093664	1091485	0
[	Ag	107	20.390	ug/L	0.400	1	42	309611	1
[	Cd	111	19.630	ug/L	0.220	1	115	105001	0
[	Cd	114	19.864	ug/L	0.154	0	65	261299	1
[	Sb	121	0.062	ug/L	0.002	3	182	1158	3
[	Sb	123	0.063	ug/L	0.002	3	151	896	2
[	Ba	135	0.055	ug/L	0.004	7	15	278	7
[	Ba	137	0.043	ug/L	0.001	3	26	383	2
[>	Tb	159		ug/L			1253683	1319580	0
[	Tl	205	0.031	ug/L	0.001	3	128	1272	3
[	Pb	208	0.028	ug/L	0.001	3	347	1694	2
[	Bi	209		ug/L			2594753	2456397	0
[	Th	232	0.083	ug/L	0.013	15	1408	5408	11
[	U	238	0.000	ug/L	0.000	120	31	36	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:02:48
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	885249	2
	Be	9	192.971	ug/L	1.965	1	23	604913	1
	C	13		ug/L			82469	83802	0
	Cl	37		ug/L			4833777	4959944	1
>	Sc	45		ug/L			1144296	1101531	0
	V	51	202.468	ug/L	6.462	3	9450	4143661	2
	V-1	51	202.615	ug/L	6.101	3	48	4147011	2
	Cr	52	204.853	ug/L	3.623	1	27897	3520765	1
	Cr	53	205.331	ug/L	3.024	1	145	398917	1
	Mn	55	200.642	ug/L	5.411	2	487	4758412	1
	Co	59	203.718	ug/L	2.196	1	76	3553563	1
>	Ge	72		ug/L			608948	557620	1
	Ni	60	198.875	ug/L	7.392	3	28	716041	2
	Ni	62	199.749	ug/L	4.254	2	64	102923	1
	Cu	63	195.425	ug/L	2.883	1	101	1600798	1
	Cu	65	198.990	ug/L	3.498	1	39	718014	0
	Zn	66	194.019	ug/L	6.246	3	991	408862	1
	Zn	67	196.969	ug/L	5.568	2	141	69509	1
	Zn	68	194.304	ug/L	5.991	3	706	290053	1
	As	75	201.660	ug/L	4.999	2	318	392957	1
	As-1	75	201.744	ug/L	5.555	2	12623	394566	1
	Se	82	196.736	ug/L	2.658	1	-10	45480	0
	Se	78	196.909	ug/L	3.705	1	12864	117908	0
	Mo	98	219.763	ug/L	5.564	2	28	1147654	1
	Y	89		ug/L			406158	381681	1
	Kr	83		ug/L			794	1006	1
>	In	115		ug/L			1093664	1041060	0
	Ag	107	200.670	ug/L	3.486	1	42	2905953	0
	Cd	111	196.310	ug/L	3.041	1	115	1000550	0
	Cd	114	203.688	ug/L	3.325	1	65	2554692	0
	Sb	121	206.075	ug/L	2.958	1	182	3077238	0
	Sb	123	207.014	ug/L	2.378	1	151	2346177	0
	Ba	135	207.696	ug/L	3.195	1	15	952347	1
	Ba	137	207.820	ug/L	3.354	1	26	1654389	1
>	Tb	159		ug/L			1253683	1246595	1
	Tl	205	199.665	ug/L	2.235	1	128	6944940	0
	Pb	208	199.782	ug/L	2.153	1	347	9074007	0
	Bi	209		ug/L			2594753	2346766	1
	Th	232	198.762	ug/L	2.437	1	1408	8923629	0
	U	238	198.065	ug/L	3.404	1	31	9539862	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:09:40
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	839331	1
[	Be	9	284.060	ug/L	5.216	1	23	844472	2
	C	13		ug/L			82469	85852	3
	Cl	37		ug/L			4833777	4820895	3
[>	Sc	45		ug/L			1144296	1079541	1
[	V	51	314.543	ug/L	4.447	1	9450	6304538	1
[	V-1	51	312.658	ug/L	5.271	1	48	6271957	1
[	Cr	52	309.016	ug/L	8.336	2	27897	5190673	1
[	Cr	53	302.704	ug/L	8.567	2	145	576126	1
[	Mn	55	300.072	ug/L	4.663	1	487	6974420	1
[	Co	59	301.836	ug/L	6.083	2	76	5158867	0
[>	Ge	72		ug/L			608948	540205	0
[	Ni	60	303.348	ug/L	7.327	2	28	1058385	1
[	Ni	62	303.759	ug/L	4.889	1	64	151627	1
[	Cu	63	300.668	ug/L	4.705	1	101	2386208	1
[	Cu	65	293.244	ug/L	3.239	1	39	1025245	1
[	Zn	66	284.133	ug/L	2.779	0	991	579850	1
[	Zn	67	287.992	ug/L	2.251	0	141	98428	0
[	Zn	68	284.902	ug/L	2.443	0	706	411878	1
[	As	75	303.660	ug/L	3.592	1	318	573209	1
[	As-1	75	305.872	ug/L	4.568	1	12623	573881	1
[	Se	82	280.727	ug/L	1.782	0	-10	62883	0
[	Se	78	286.966	ug/L	1.194	0	12864	161279	0
[	Mo	98	317.096	ug/L	3.353	1	28	1604613	0
	Y	89		ug/L			406158	364085	1
	Kr	83		ug/L			794	1142	2
[>	In	115		ug/L			1093664	1002433	0
[	Ag	107	277.144	ug/L	5.605	2	42	3865061	2
[	Cd	111	293.844	ug/L	3.131	1	115	1442191	1
[	Cd	114	303.685	ug/L	2.098	0	65	3667862	0
[	Sb	121	305.731	ug/L	3.129	1	182	4396158	0
[	Sb	123	303.069	ug/L	1.832	0	151	3307496	0
[	Ba	135	313.585	ug/L	3.202	1	15	1384530	1
[	Ba	137	319.477	ug/L	3.430	1	26	2449007	0
[>	Tb	159		ug/L			1253683	1210317	0
[	Tl	205	300.480	ug/L	3.347	1	128	10147464	0
[	Pb	208	298.242	ug/L	3.569	1	347	13151863	0
[	Bi	209		ug/L			2594753	2231606	0
[	Th	232	297.298	ug/L	2.785	0	1408	12959068	0
[	U	238	293.602	ug/L	1.050	0	31	13731411	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:16:31
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	867320	1
[	Be	9	0.004	ug/L	0.005	120	23	34	41
	C	13		ug/L			82469	81956	2
	Cl	37		ug/L			4833777	4844981	3
[>	Sc	45		ug/L			1144296	1090583	2
[	V	51	0.026	ug/L	0.008	31	9450	9536	3
[	V-1	51	0.015	ug/L	0.002	12	48	358	10
[	Cr	52	0.083	ug/L	0.027	32	27897	27993	2
[	Cr	53	0.047	ug/L	0.011	22	145	228	6
[	Mn	55	0.016	ug/L	0.002	14	487	837	6
[	Co	59	0.003	ug/L	0.002	74	76	117	30
[>	Ge	72		ug/L			608948	571127	2
[	Ni	60	0.043	ug/L	0.005	11	28	186	7
[	Ni	62	1.814	ug/L	0.671	37	64	1013	33
[	Cu	63	0.152	ug/L	0.043	28	101	1362	25
[	Cu	65	0.037	ug/L	0.011	28	39	174	20
[	Zn	66	0.311	ug/L	0.031	10	991	1599	2
[	Zn	67	0.325	ug/L	0.045	13	141	250	4
[	Zn	68	0.330	ug/L	0.038	11	706	1165	3
[	As	75	0.003	ug/L	0.014	486	318	304	8
[	As-1	75	0.189	ug/L	0.166	87	12623	12202	0
[	Se	82	0.017	ug/L	0.112	662	-10	-5	483
[	Se	78	0.682	ug/L	0.575	84	12864	12437	0
[	Mo	98	0.045	ug/L	0.001	2	28	267	4
	Y	89		ug/L			406158	372021	1
	Kr	83		ug/L			794	751	8
[>	In	115		ug/L			1093664	1084321	1
[	Ag	107	0.010	ug/L	0.006	59	42	194	47
[	Cd	111	0.013	ug/L	0.019	143	115	184	54
[	Cd	114	0.013	ug/L	0.017	124	65	239	90
[	Sb	121	0.299	ug/L	0.028	9	182	4826	8
[	Sb	123	0.291	ug/L	0.030	10	151	3587	9
[	Ba	135	0.016	ug/L	0.010	60	15	92	50
[	Ba	137	0.014	ug/L	0.007	51	26	144	42
[>	Tb	159		ug/L			1253683	1198272	0
[	Tl	205	0.043	ug/L	0.020	46	128	1553	43
[	Pb	208	0.014	ug/L	0.005	34	347	958	22
[	Bi	209		ug/L			2594753	2501366	0
[	Th	232	0.201	ug/L	0.008	3	1408	10038	2
[	U	238	0.010	ug/L	0.005	47	31	471	44

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:22:33
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	860616	0
[	Be	9	-0.001	ug/L	0.001	105	23	19	12
	C	13		ug/L			82469	83110	1
	Cl	37		ug/L			4833777	4711241	1
[>	Sc	45		ug/L			1144296	1084304	0
[	V	51	0.029	ug/L	0.019	66	9450	9535	3
[	V-1	51	0.010	ug/L	0.001	13	48	242	10
[	Cr	52	0.103	ug/L	0.065	62	27897	28167	3
[	Cr	53	0.038	ug/L	0.004	10	145	211	4
[	Mn	55	0.009	ug/L	0.001	6	487	668	1
[	Co	59	0.001	ug/L	0.001	132	76	85	20
[>	Ge	72		ug/L			608948	570146	2
[	Ni	60	0.042	ug/L	0.002	4	28	183	2
[	Ni	62	0.261	ug/L	0.102	39	64	196	25
[	Cu	63	0.027	ug/L	0.004	13	101	322	7
[	Cu	65	0.016	ug/L	0.002	15	39	95	7
[	Zn	66	0.012	ug/L	0.006	46	991	954	2
[	Zn	67	0.066	ug/L	0.016	25	141	156	5
[	Zn	68	0.037	ug/L	0.036	98	706	717	7
[	As	75	-0.005	ug/L	0.020	366	318	287	13
[	As-1	75	0.178	ug/L	0.188	105	12623	12159	0
[	Se	82	-0.034	ug/L	0.049	143	-10	-17	64
[	Se	78	0.631	ug/L	0.669	106	12864	12387	0
[	Mo	98	0.012	ug/L	0.002	16	28	93	12
	Y	89		ug/L			406158	371164	1
	Kr	83		ug/L			794	759	1
[>	In	115		ug/L			1093664	1052022	0
[	Ag	107	0.002	ug/L	0.001	48	42	64	17
[	Cd	111	0.000	ug/L	0.000	99	115	112	0
[	Cd	114	0.001	ug/L	0.000	15	65	73	1
[	Sb	121	0.079	ug/L	0.009	10	182	1368	9
[	Sb	123	0.079	ug/L	0.011	13	151	1051	11
[	Ba	135	0.006	ug/L	0.001	9	15	43	6
[	Ba	137	0.007	ug/L	0.001	21	26	80	14
[>	Tb	159		ug/L			1253683	1189207	0
[	Tl	205	0.019	ug/L	0.010	53	128	756	44
[	Pb	208	0.005	ug/L	0.001	11	347	536	3
[	Bi	209		ug/L			2594753	2517677	0
[	Th	232	0.049	ug/L	0.003	6	1408	3436	4
[	U	238	0.002	ug/L	0.000	7	31	103	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:28:04
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	890802	1
[	**Be**	**9**	**-0.001**	ug/L	0.002	199	23	20	23
	C	**13**		ug/L			82469	82217	1
	Cl	**37**		ug/L			4833777	4754829	3
[>	**Sc**	**45**		ug/L			1144296	1081393	2
|	**V**	**51**	**0.024**	ug/L	0.011	45	9450	9416	2
|	**V-1**	**51**	**0.009**	ug/L	0.000	4	48	224	2
|	**Cr**	**52**	**0.092**	ug/L	0.047	50	27897	27898	2
|	**Cr**	**53**	**0.040**	ug/L	0.013	32	145	213	9
|	**Mn**	**55**	**0.016**	ug/L	0.001	4	487	825	0
[	**Co**	**59**	**0.001**	ug/L	0.001	50	76	90	11
[>	**Ge**	**72**		ug/L			608948	581858	0
|	**Ni**	**60**	**0.054**	ug/L	0.005	9	28	231	7
|	**Ni**	**62**	**0.091**	ug/L	0.014	15	64	110	6
|	**Cu**	**63**	**0.185**	ug/L	0.006	3	101	1680	2
|	**Cu**	**65**	**0.186**	ug/L	0.006	3	39	736	3
|	**Zn**	**66**	**0.591**	ug/L	0.032	5	991	2244	2
|	**Zn**	**67**	**0.577**	ug/L	0.049	8	141	347	4
|	**Zn**	**68**	**0.572**	ug/L	0.044	7	706	1563	3
|	**As**	**75**	**0.005**	ug/L	0.011	202	318	314	6
|	**As-1**	**75**	**0.013**	ug/L	0.028	214	12623	12087	0
|	**Se**	**82**	**-0.005**	ug/L	0.024	465	-10	-11	54
|	**Se**	**78**	**0.013**	ug/L	0.086	642	12864	12299	0
[	**Mo**	**98**	**0.005**	ug/L	0.001	25	28	55	13
	Y	**89**		ug/L			406158	370589	0
	Kr	**83**		ug/L			794	753	5
[>	**In**	**115**		ug/L			1093664	1078900	1
|	**Ag**	**107**	**0.001**	ug/L	0.000	10	42	51	1
|	**Cd**	**111**	**0.001**	ug/L	0.003	357	115	118	12
|	**Cd**	**114**	**0.000**	ug/L	0.001	293	65	68	15
|	**Sb**	**121**	**0.036**	ug/L	0.005	14	182	744	12
|	**Sb**	**123**	**0.036**	ug/L	0.006	17	151	569	14
|	**Ba**	**135**	**0.029**	ug/L	0.006	19	15	151	16
[	**Ba**	**137**	**0.027**	ug/L	0.001	2	26	251	3
[>	**Tb**	**159**		ug/L			1253683	1210363	0
|	**Tl**	**205**	**0.011**	ug/L	0.006	59	128	483	43
|	**Pb**	**208**	**0.016**	ug/L	0.001	5	347	1028	4
|	**Bi**	**209**		ug/L			2594753	2516683	1
|	**Th**	**232**	**0.022**	ug/L	0.003	12	1408	2339	5
[	**U**	**238**	**0.001**	ug/L	0.000	19	31	60	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:32:14
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	898775	1
[	Be	9	48.711	ug/L	0.735	1	23	155063	1
	C	13		ug/L			82469	81126	0
	Cl	37		ug/L			4833777	4773762	1
[>	Sc	45		ug/L			1144296	1126311	1
[	V	51	49.927	ug/L	0.880	1	9450	1051876	1
[	V-1	51	49.756	ug/L	0.850	1	48	1041398	1
[	Cr	52	50.582	ug/L	1.288	2	27897	909515	1
[	Cr	53	50.001	ug/L	1.104	2	145	99424	1
[	Mn	55	49.238	ug/L	0.656	1	487	1194421	0
[	Co	59	49.700	ug/L	0.909	1	76	886453	1
[>	Ge	72		ug/L			608948	591497	1
[	Ni	60	49.289	ug/L	0.726	1	28	188301	0
[	Ni	62	48.487	ug/L	0.370	0	64	26552	1
[	Cu	63	49.319	ug/L	1.538	3	101	428551	2
[	Cu	65	50.463	ug/L	1.959	3	39	193117	1
[	Zn	66	50.227	ug/L	0.884	1	991	113004	1
[	Zn	67	50.151	ug/L	0.429	0	141	18879	1
[	Zn	68	49.879	ug/L	1.887	3	706	79481	1
[	As	75	49.251	ug/L	0.708	1	318	102036	0
[	As-1	75	49.555	ug/L	1.008	2	12623	112054	0
[	Se	82	48.469	ug/L	1.210	2	-10	11876	1
[	Se	78	49.426	ug/L	2.128	4	12864	40745	1
[	Mo	98	47.914	ug/L	1.389	2	28	265454	2
	Y	89		ug/L			406158	383466	0
	Kr	83		ug/L			794	756	1
[>	In	115		ug/L			1093664	1074282	0
[	Ag	107	47.737	ug/L	1.004	2	42	713420	1
[	Cd	111	50.609	ug/L	0.308	0	115	266279	0
[	Cd	114	51.299	ug/L	0.579	1	65	664016	0
[	Sb	121	50.005	ug/L	0.260	0	182	770721	0
[	Sb	123	49.875	ug/L	0.321	0	151	583436	0
[	Ba	135	50.753	ug/L	0.267	0	15	240151	0
[	Ba	137	50.456	ug/L	0.935	1	26	414508	1
[>	Tb	159		ug/L			1253683	1248627	1
[	Tl	205	49.491	ug/L	0.080	0	128	1724501	1
[	Pb	208	49.219	ug/L	0.258	0	347	2239550	0
[	Bi	209		ug/L			2594753	2487148	1
[	Th	232	51.137	ug/L	0.579	1	1408	2300655	0
[	U	238	51.012	ug/L	0.538	1	31	2461299	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:39:06
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	878296	2
	Be	9	-0.002	ug/L	0.001	87	23	17	21
	C	13		ug/L			82469	82915	0
	Cl	37		ug/L			4833777	4656435	5
>	Sc	45		ug/L			1144296	1081466	1
	V	51	0.022	ug/L	0.011	52	9450	9366	1
	V-1	51	0.005	ug/L	0.001	20	48	137	12
	Cr	52	0.070	ug/L	0.032	44	27897	27540	0
	Cr	53	0.012	ug/L	0.005	42	145	160	6
	Mn	55	0.000	ug/L	0.001	574	487	465	4
	Co	59	0.001	ug/L	0.000	84	76	80	8
>	Ge	72		ug/L			608948	577264	0
	Ni	60	-0.000	ug/L	0.000	70	28	26	3
	Ni	62	0.022	ug/L	0.010	43	64	72	7
	Cu	63	0.006	ug/L	0.003	46	101	145	16
	Cu	65	0.001	ug/L	0.000	25	39	42	3
	Zn	66	-0.218	ug/L	0.005	2	991	464	2
	Zn	67	-0.186	ug/L	0.015	7	141	66	7
	Zn	68	-0.205	ug/L	0.011	5	706	353	5
	As	75	0.002	ug/L	0.016	693	318	306	10
	As-1	75	0.081	ug/L	0.091	111	12623	12126	1
	Se	82	0.011	ug/L	0.024	215	-10	-7	81
	Se	78	0.268	ug/L	0.349	130	12864	12345	1
	Mo	98	0.009	ug/L	0.003	30	28	76	19
	Y	89		ug/L			406158	372650	1
	Kr	83		ug/L			794	738	4
>	In	115		ug/L			1093664	1064552	1
	Ag	107	0.000	ug/L	0.001	516	42	43	25
	Cd	111	0.001	ug/L	0.001	126	115	115	1
	Cd	114	-0.000	ug/L	0.001	362	65	61	15
	Sb	121	0.066	ug/L	0.009	13	182	1194	12
	Sb	123	0.064	ug/L	0.006	9	151	892	9
	Ba	135	0.001	ug/L	0.000	81	15	17	10
	Ba	137	-0.000	ug/L	0.000	400	26	25	10
>	Tb	159		ug/L			1253683	1189174	0
	Tl	205	0.009	ug/L	0.005	58	128	430	42
	Pb	208	-0.002	ug/L	0.001	39	347	237	16
	Bi	209		ug/L			2594753	2510530	1
	Th	232	0.101	ug/L	0.004	4	1408	5648	3
	U	238	0.002	ug/L	0.000	4	31	125	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 14:46:13
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	932146	0
	Be	9	0.169	ug/L	0.012	7	23	580	7
	C	13		ug/L			82469	88088	2
	Cl	37		ug/L			4833777	4680350	0
>	Sc	45		ug/L			1144296	1166115	0
	V	51	5.661	ug/L	0.064	1	9450	132035	0
	V-1	51	5.687	ug/L	0.076	1	48	123291	1
	Cr	52	6.611	ug/L	0.246	3	27897	147784	2
	Cr	53	6.692	ug/L	0.230	3	145	13903	2
	Mn	55	247.985	ug/L	5.657	2	487	6226192	1
	Co	59	1.854	ug/L	0.023	1	76	34318	2
>	Ge	72		ug/L			608948	600091	1
	Ni	60	6.640	ug/L	0.227	3	28	25755	1
	Ni	62	6.777	ug/L	0.136	2	64	3820	3
	Cu	63	3.696	ug/L	0.101	2	101	32669	1
	Cu	65	3.781	ug/L	0.087	2	39	14717	0
	Zn	66	45.079	ug/L	1.089	2	991	103000	2
	Zn	67	46.226	ug/L	0.606	1	141	17669	2
	Zn	68	46.348	ug/L	1.519	3	706	74982	1
	As	75	3.275	ug/L	0.018	0	318	7177	2
	As-1	75	3.170	ug/L	0.109	3	12623	18915	0
	Se	82	0.058	ug/L	0.019	33	-10	4	110
	Se	78	-0.576	ug/L	0.419	72	12864	12340	0
	Mo	98	0.109	ug/L	0.006	5	28	639	7
	Y	89		ug/L			406158	428363	2
	Kr	83		ug/L			794	799	2
>	In	115		ug/L			1093664	1102223	1
	Ag	107	0.037	ug/L	0.001	1	42	609	2
	Cd	111	0.476	ug/L	0.015	3	115	2683	1
	Cd	114	0.435	ug/L	0.011	2	65	5845	0
	Sb	121	0.038	ug/L	0.005	12	182	789	10
	Sb	123	0.035	ug/L	0.004	10	151	578	7
	Ba	135	81.781	ug/L	0.873	1	15	397012	1
	Ba	137	81.684	ug/L	0.575	0	26	688493	1
>	Tb	159		ug/L			1253683	1259706	0
	Tl	205	0.042	ug/L	0.004	9	128	1622	8
	Pb	208	12.480	ug/L	0.096	0	347	573148	0
	Bi	209		ug/L			2594753	2586304	0
	Th	232	1.168	ug/L	0.021	1	1408	54391	0
	U	238	0.139	ug/L	0.003	2	31	6777	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 14:50:21
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	949944	1
[	Be	9	0.847	ug/L	0.005	0	23	2873	0
	C	13		ug/L			82469	112257	2
	Cl	37		ug/L			4833777	4693091	0
[>	Sc	45		ug/L			1144296	1289214	0
[	V	51	26.295	ug/L	0.297	1	9450	639227	1
[	V-1	51	26.319	ug/L	0.253	0	48	630611	1
[	Cr	52	30.679	ug/L	0.761	2	27897	643846	1
[	Cr	53	30.724	ug/L	0.277	0	145	69999	0
[	Mn	55	1114.230	ug/L	12.560	1	487	30930615	1
[	Co	59	8.483	ug/L	0.050	0	76	173274	0
[>	Ge	72		ug/L			608948	600942	0
[	Ni	60	33.030	ug/L	0.495	1	28	128226	0
[	Ni	62	34.091	ug/L	0.319	0	64	18986	1
[	Cu	63	18.104	ug/L	0.370	2	101	159904	1
[	Cu	65	18.753	ug/L	0.277	1	39	72968	0
[	Zn	66	216.399	ug/L	4.930	2	991	491426	1
[	Zn	67	225.621	ug/L	3.459	1	141	85804	0
[	Zn	68	231.885	ug/L	2.474	1	706	373045	1
[	As	75	16.375	ug/L	0.213	1	318	34682	1
[	As-1	75	16.593	ug/L	0.283	1	12623	46411	0
[	Se	82	-0.286	ug/L	0.041	14	-10	-81	11
[	Se	78	-0.225	ug/L	0.252	111	12864	12563	0
[	Mo	98	0.555	ug/L	0.013	2	28	3155	3
	Y	89		ug/L			406158	570465	1
	Kr	83		ug/L			794	1366	1
[>	In	115		ug/L			1093664	1083557	0
[	Ag	107	0.202	ug/L	0.010	4	42	3087	3
[	Cd	111	2.358	ug/L	0.058	2	115	12619	1
[	Cd	114	2.163	ug/L	0.062	2	65	28296	2
[	Sb	121	0.085	ug/L	0.005	5	182	1495	4
[	Sb	123	0.084	ug/L	0.004	4	151	1137	3
[	Ba	135	439.440	ug/L	6.888	1	15	2097098	1
[	Ba	137	424.118	ug/L	9.925	2	26	3513874	1
[>	Tb	159		ug/L			1253683	1274577	0
[	Tl	205	0.192	ug/L	0.005	2	128	6974	2
[	Pb	208	62.042	ug/L	0.683	1	347	2881719	1
[	Bi	209		ug/L			2594753	2483825	0
[	Th	232	5.618	ug/L	0.051	0	1408	259326	1
[	U	238	0.693	ug/L	0.002	0	31	34145	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 14:54:29
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	936726	0
[	Be	9	0.820	ug/L	0.028	3	23	2745	2
	C	13		ug/L			82469	112751	3
	Cl	37		ug/L			4833777	4763014	5
[>	Sc	45		ug/L			1144296	1291942	0
|	V	51	29.393	ug/L	0.036	0	9450	714763	0
|	V-1	51	29.377	ug/L	0.246	0	48	705358	1
|	Cr	52	29.489	ug/L	0.923	3	27897	621450	3
|	Cr	53	29.437	ug/L	0.136	0	145	67216	0
|	Mn	55	1013.202	ug/L	17.797	1	487	28183015	1
[	Co	59	8.429	ug/L	0.099	1	76	172533	1
[>	Ge	72		ug/L			608948	594117	1
|	Ni	60	33.179	ug/L	0.263	0	28	127344	0
|	Ni	62	34.160	ug/L	0.819	2	64	18806	1
|	Cu	63	17.631	ug/L	0.338	1	101	153953	0
|	Cu	65	17.887	ug/L	0.363	2	39	68811	2
|	Zn	66	207.696	ug/L	6.548	3	991	466324	2
|	Zn	67	210.793	ug/L	2.215	1	141	79265	1
|	Zn	68	220.813	ug/L	3.977	1	706	351169	0
|	As	75	15.188	ug/L	0.151	0	318	31824	0
|	As-1	75	15.430	ug/L	0.260	1	12623	43529	0
|	Se	82	-0.218	ug/L	0.064	29	-10	-63	24
|	Se	78	-0.011	ug/L	0.368	3350	12864	12543	0
[	Mo	98	0.596	ug/L	0.009	1	28	3344	1
	Y	89		ug/L			406158	574518	1
	Kr	83		ug/L			794	1314	1
[>	In	115		ug/L			1093664	1085695	0
|	Ag	107	~ 0.184	ug/L	0.007	3	42	2813	4
|	Cd	111	2.069	ug/L	0.059	2	115	11112	2
|	Cd	114	1.900	ug/L	0.036	1	65	24912	1
|	Sb	121	0.079	ug/L	0.003	3	182	1405	3
|	Sb	123	0.078	ug/L	0.003	3	151	1068	2
|	Ba	135	385.617	ug/L	1.977	0	15	1843977	0
[	Ba	137	397.305	ug/L	2.129	0	26	3298672	0
[>	Tb	159		ug/L			1253683	1290343	1
|	Tl	205	0.181	ug/L	0.005	2	128	6639	2
|	Pb	208	53.888	ug/L	1.008	1	347	2533623	0
|	Bi	209		ug/L			2594753	2489806	0
|	Th	232	5.561	ug/L	0.034	0	1408	259841	0
[	U	238	0.651	ug/L	0.007	1	31	32488	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 14:58:36
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	940430	1
	Be	9	25.099	ug/L	0.441	1	23	83598	0
	C	13		ug/L			82469	100124	2
	Cl	37		ug/L			4833777	4835756	1
>	Sc	45		ug/L			1144296	1245810	1
	V	51	56.566	ug/L	0.794	1	9450	1316836	1
	V-1	51	56.497	ug/L	0.392	0	48	1307972	0
	Cr	52	58.595	ug/L	0.892	1	27897	1160694	1
	Cr	53	58.347	ug/L	0.533	0	145	128324	1
	Mn	55	1102.214	ug/L	22.034	1	487	29570175	3
	Co	59	35.062	ug/L	0.914	2	76	691643	1
>	Ge	72		ug/L			608948	598771	0
	Ni	60	58.081	ug/L	0.739	1	28	224654	1
	Ni	62	60.835	ug/L	0.777	1	64	33709	0
	Cu	63	43.389	ug/L	0.265	0	101	381761	1
	Cu	65	44.181	ug/L	0.561	1	39	171253	1
	Zn	66	277.397	ug/L	5.404	1	991	627454	1
	Zn	67	279.510	ug/L	7.051	2	141	105883	2
	Zn	68	295.753	ug/L	6.567	2	706	473849	1
	As	75	41.908	ug/L	0.621	1	318	87953	1
	As-1	75	41.448	ug/L	0.220	0	12623	96925	0
	Se	82	75.028	ug/L	1.605	2	-10	18619	1
	Se	78	77.108	ug/L	0.376	0	12864	57284	0
	Mo	98	22.723	ug/L	0.161	0	28	127482	0
	Y	89		ug/L			406158	569354	0
	Kr	83		ug/L			794	1331	3
>	In	115		ug/L			1093664	1061447	0
	Ag	107	22.960	ug/L	0.171	0	42	339068	0
	Cd	111	27.027	ug/L	0.514	1	115	140562	2
	Cd	114	27.445	ug/L	0.189	0	65	351045	0
	Sb	121	1.777	ug/L	0.007	0	182	27231	0
	Sb	123	1.781	ug/L	0.019	1	151	20723	1
	Ba	135	436.734	ug/L	10.993	2	15	2041662	2
	Ba	137	428.843	ug/L	5.536	1	26	3480826	0
>	Tb	159		ug/L			1253683	1271378	0
	Tl	205	25.314	ug/L	0.217	0	128	898137	0
	Pb	208	83.547	ug/L	0.329	0	347	3870571	0
	Bi	209		ug/L			2594753	2452287	0
	Th	232	31.079	ug/L	0.063	0	1408	1424394	0
	U	238	25.903	ug/L	0.534	2	31	1272478	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:02:44
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	938935	0
	Be	9	0.474	ug/L	0.015	3	23	1599	3
	C	13		ug/L			82469	118557	0
	Cl	37		ug/L			4833777	4674870	1
>	Sc	45		ug/L			1144296	1267782	0
	V	51	26.792	ug/L	0.344	1	9450	640253	1
	V-1	51	26.847	ug/L	0.197	0	48	632546	0
	Cr	52	16.461	ug/L	0.171	1	27897	354070	0
	Cr	53	16.724	ug/L	0.371	2	145	37545	2
	Mn	55	1346.126	ug/L	7.024	0	487	36745445	0
	Co	59	6.786	ug/L	0.008	0	76	136323	0
>	Ge	72		ug/L			608948	602744	0
	Ni	60	13.783	ug/L	0.342	2	28	53685	2
	Ni	62	15.208	ug/L	0.107	0	64	8530	0
	Cu	63	16.647	ug/L	0.290	1	101	147499	1
	Cu	65	17.114	ug/L	0.157	0	39	66798	1
	Zn	66	269.258	ug/L	0.444	0	991	613148	0
	Zn	67	268.300	ug/L	4.924	1	141	102320	1
	Zn	68	277.910	ug/L	6.717	2	706	448273	2
	As	75	17.694	ug/L	0.195	1	318	37563	0
	As-1	75	17.966	ug/L	0.244	1	12623	49371	0
	Se	82	-0.035	ug/L	0.026	76	-10	-18	35
	Se	78	-0.306	ug/L	0.177	57	12864	12555	0
	Mo	98	0.460	ug/L	0.019	4	28	2626	4
	Y	89		ug/L			406158	518076	1
	Kr	83		ug/L			794	1057	2
>	In	115		ug/L			1093664	1109524	0
	Ag	107	0.126	ug/L	0.003	2	42	1985	2
	Cd	111	5.340	ug/L	0.042	0	115	29120	0
	Cd	114	5.290	ug/L	0.026	0	65	70776	0
	Sb	121	0.447	ug/L	0.009	1	182	7292	1
	Sb	123	0.448	ug/L	0.011	2	151	5563	2
	Ba	135	345.600	ug/L	5.452	1	15	1688867	1
	Ba	137	350.175	ug/L	3.576	1	26	2971216	1
>	Tb	159		ug/L			1253683	1265353	0
	Tl	205	0.327	ug/L	0.003	0	128	11686	0
	Pb	208	248.515	ug/L	2.761	1	347	11457773	0
	Bi	209		ug/L			2594753	2501343	0
	Th	232	5.420	ug/L	0.044	0	1408	248418	1
	U	238	0.510	ug/L	0.002	0	31	24965	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:06:51
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	926834	1
	Be	9	0.664	ug/L	0.028	4	23	2202	2
	C	13		ug/L			82469	114342	1
	Cl	37		ug/L			4833777	4705789	1
>	Sc	45		ug/L			1144296	1243574	2
	V	51	23.636	ug/L	0.724	3	9450	555023	1
	V-1	51	23.592	ug/L	0.807	3	48	544978	1
	Cr	52	20.893	ug/L	0.489	2	27897	432500	0
	Cr	53	20.766	ug/L	0.794	3	145	45660	1
	Mn	55	725.488	ug/L	28.932	3	487	19412395	1
	Co	59	6.319	ug/L	0.185	2	76	124463	0
>	Ge	72		ug/L			608948	591666	1
	Ni	60	20.420	ug/L	0.353	1	28	78060	1
	Ni	62	21.109	ug/L	0.481	2	64	11597	1
	Cu	63	17.874	ug/L	0.394	2	101	155430	1
	Cu	65	18.485	ug/L	0.301	1	39	70828	2
	Zn	66	86.491	ug/L	2.168	2	991	193949	1
	Zn	67	101.213	ug/L	1.547	1	141	37972	0
	Zn	68	97.904	ug/L	1.734	1	706	155447	0
	As	75	6.592	ug/L	0.147	2	318	13929	1
	As-1	75	6.655	ug/L	0.228	3	12623	25669	0
	Se	82	-0.235	ug/L	0.081	34	-10	-67	30
	Se	78	0.040	ug/L	0.321	809	12864	12521	0
	Mo	98	0.372	ug/L	0.007	1	28	2088	1
	Y	89		ug/L			406158	585475	2
	Kr	83		ug/L			794	1255	3
>	In	115		ug/L			1093664	1080919	0
	Ag	107	~0.140	ug/L	0.001	0	42	2152	0
	Cd	111	0.727	ug/L	0.032	4	115	3959	4
	Cd	114	0.575	ug/L	0.006	0	65	7555	1
	Sb	121	0.052	ug/L	0.001	2	182	988	1
	Sb	123	0.050	ug/L	0.004	7	151	742	5
	Ba	135	315.156	ug/L	4.037	1	15	1500393	1
	Ba	137	318.971	ug/L	2.159	0	26	2636638	0
>	Tb	159		ug/L			1253683	1262444	0
	Tl	205	0.133	ug/L	0.002	1	128	4830	1
	Pb	208	31.354	ug/L	0.282	0	347	1442534	0
	Bi	209		ug/L			2594753	2482401	0
	Th	232	5.313	ug/L	0.027	0	1408	242985	0
	U	238	1.098	ug/L	0.020	1	31	53591	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:10:59
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\111912.cal

Ag

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			923208	925173	0
Be	9	0.431	ug/L	0.006	1	23	1437	1
C	13		ug/L			82469	112499	3
Cl	37		ug/L			4833777	4721761	1
Sc	45		ug/L			1144296	1242547	2
V	51	17.436	ug/L	0.439	2	9450	411863	1
V-1	51	17.505	ug/L	0.268	1	48	404189	0
Cr	52	11.874	ug/L	0.455	3	27897	258680	2
Cr	53	12.151	ug/L	0.365	3	145	26776	3
Mn	55	1082.556	ug/L	31.652	2	487	28951335	1
Co	59	4.546	ug/L	0.094	2	76	89528	2
Ge	72		ug/L			608948	596517	0
Ni	60	13.692	ug/L	0.162	1	28	52780	0
Ni	62	14.879	ug/L	0.660	4	64	8259	3
Cu	63	10.423	ug/L	0.146	1	101	91440	1
Cu	65	10.819	ug/L	0.208	1	39	41802	1
Zn	66	153.356	ug/L	3.439	2	991	345984	1
Zn	67	165.252	ug/L	6.110	3	141	62420	3
Zn	68	167.157	ug/L	1.880	1	706	267115	0
As	75	6.125	ug/L	0.071	1	318	13071	0
As-1	75	6.248	ug/L	0.134	2	12623	25056	0
Se	82	-0.113	ug/L	0.119	104	-10	-37	77
Se	78	0.122	ug/L	0.241	197	12864	12671	0
Mo	98	0.339	ug/L	0.006	1	28	1923	1
Y	89		ug/L			406158	494942	1
Kr	83		ug/L			794	1041	7
In	115		ug/L			1093664	1085703	0
Ag	107	0.139	ug/L	0.005	3	42	2146	3
Cd	111	1.533	ug/L	0.036	2	115	8261	2
Cd	114	1.378	ug/L	0.006	0	65	18095	0
Sb	121	0.066	ug/L	0.003	4	182	1207	4
Sb	123	0.064	ug/L	0.002	2	151	905	1
Ba	135	438.261	ug/L	2.473	0	15	2095721	0
Ba	137	430.365	ug/L	4.083	0	26	3573158	0
Tb	159		ug/L			1253683	1269680	1
Tl	205	0.141	ug/L	0.004	2	128	5114	1
Pb	208	65.133	ug/L	0.646	0	347	3013364	0
Bi	209		ug/L			2594753	2508843	0
Th	232	3.504	ug/L	0.026	0	1408	161657	0
U	238	0.424	ug/L	0.001	0	31	20836	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:15:06
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	940258	2
	Be	9	0.877	ug/L	0.028	3	23	2943	0
	C	13		ug/L			82469	116382	1
	Cl	37		ug/L			4833777	4938150	4
>	Sc	45		ug/L			1144296	1296583	1
	V	51	35.394	ug/L	0.673	1	9450	861408	0
	V-1	51	35.355	ug/L	0.759	2	48	851697	0
	Cr	52	62.467	ug/L	1.077	1	27897	1285545	0
	Cr	53	62.130	ug/L	1.357	2	145	142161	0
	Mn	55	1325.853	ug/L	28.346	2	487	37004486	0
	Co	59	10.899	ug/L	0.288	2	76	223781	0
>	Ge	72		ug/L			608948	581140	3
	Ni	60	61.321	ug/L	1.737	2	28	230091	1
	Ni	62	63.460	ug/L	1.996	3	64	34104	0
	Cu	63	22.902	ug/L	1.043	4	101	195449	2
	Cu	65	23.943	ug/L	1.240	5	39	89998	2
	Zn	66	293.780	ug/L	9.593	3	991	644539	1
	Zn	67	292.864	ug/L	8.309	2	141	107616	0
	Zn	68	309.890	ug/L	10.088	3	706	481562	0
	As	75	15.837	ug/L	0.563	3	318	32424	0
	As-1	75	16.226	ug/L	0.753	4	12623	44127	0
	Se	82	-0.301	ug/L	0.105	34	-10	-81	27
	Se	78	0.298	ug/L	0.591	198	12864	12438	0
	Mo	98	0.513	ug/L	0.032	6	28	2818	2
	Y	89		ug/L			406158	528535	2
	Kr	83		ug/L			794	1243	2
>	In	115		ug/L			1093664	1079913	0
	Ag	107	~0.176	ug/L	0.002	1	42	2691	1
	Cd	111	4.053	ug/L	0.040	0	115	21542	0
	Cd	114	4.022	ug/L	0.036	0	65	52401	0
	Sb	121	0.063	ug/L	0.004	5	182	1162	5
	Sb	123	0.058	ug/L	0.001	1	151	829	1
	Ba	135	475.933	ug/L	3.456	0	15	2263756	0
	Ba	137	469.695	ug/L	5.938	1	26	3878799	0
>	Tb	159		ug/L			1253683	1279194	1
	Tl	205	0.237	ug/L	0.005	2	128	8587	1
	Pb	208	182.371	ug/L	4.042	2	347	8499311	1
	Bi	209		ug/L			2594753	2461397	0
	Th	232	5.528	ug/L	0.059	1	1408	256097	0
	U	238	0.540	ug/L	0.008	1	31	26701	1

ICP-MS Quantitative Analysis - Summary Report

Ag

Sample ID: VR32 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:20:18
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	930980	1
[	Be	9	0.443	ug/L	0.024	5	23	1483	5
	C	13		ug/L			82469	117135	1
	Cl	37		ug/L			4833777	4780410	2
[>	Sc	45		ug/L			1144296	1248512	1
[	V	51	18.670	ug/L	0.126	0	9450	442492	0
[	V-1	51	18.684	ug/L	0.181	0	48	433511	0
[	Cr	52	12.557	ug/L	0.243	1	27897	273169	1
[	Cr	53	12.649	ug/L	0.370	2	145	27995	1
[	Mn	55	1050.565	ug/L	10.199	0	487	28241147	1
[	Co	59	4.867	ug/L	0.042	0	76	96303	0
[>	Ge	72		ug/L			608948	595551	2
[	Ni	60	11.881	ug/L	0.546	4	28	45696	2
[	Ni	62	12.485	ug/L	0.488	3	64	6929	4
[	Cu	63	10.629	ug/L	0.424	3	101	93028	1
[	Cu	65	10.890	ug/L	0.415	3	39	41985	1
[	Zn	66	133.508	ug/L	4.338	3	991	300716	1
[	Zn	67	140.029	ug/L	2.809	2	141	52814	0
[	Zn	68	144.108	ug/L	6.284	4	706	229842	1
[	As	75	12.988	ug/L	0.349	2	318	27315	0
[	As-1	75	13.267	ug/L	0.510	3	12623	39233	0
[	Se	82	-0.040	ug/L	0.069	174	-10	-19	88
[	Se	78	0.113	ug/L	0.634	561	12864	12640	0
[	Mo	98	0.468	ug/L	0.011	2	28	2636	1
	Y	89		ug/L			406158	506595	0
	Kr	83		ug/L			794	1030	4
[>	In	115		ug/L			1093664	1072882	0
[	Ag	107	~0.093	ug/L	0.003	2	42	1436	2
[	Cd	111	1.722	ug/L	0.070	4	115	9157	3
[	Cd	114	1.649	ug/L	0.022	1	65	21375	0
[	Sb	121	0.114	ug/L	0.005	4	182	1935	3
[	Sb	123	0.119	ug/L	0.002	1	151	1537	0
[	Ba	135	301.872	ug/L	4.336	1	15	1426455	1
[	Ba	137	308.555	ug/L	6.128	1	26	2531541	1
[>	Tb	159		ug/L			1253683	1265882	0
[	Tl	205	0.151	ug/L	0.007	4	128	5449	4
[	Pb	208	75.513	ug/L	1.515	2	347	3482972	1
[	Bi	209		ug/L			2594753	2515010	0
[	Th	232	4.757	ug/L	0.116	2	1408	218253	1
[	U	238	0.599	ug/L	0.009	1	31	29308	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:24:25
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	914773	1
	Be	9	0.516	ug/L	0.005	0	23	1695	0
	C	13		ug/L			82469	110315	1
	Cl	37		ug/L			4833777	4707910	2
>	Sc	45		ug/L			1144296	1251794	0
	V	51	22.392	ug/L	0.757	3	9450	530011	2
	V-1	51	22.470	ug/L	0.793	3	48	522696	3
	Cr	52	15.738	ug/L	0.469	2	27897	335593	2
	Cr	53	16.050	ug/L	0.181	1	145	35582	0
	Mn	55	700.698	ug/L	16.476	2	487	18884998	2
	Co	59	5.178	ug/L	0.100	1	76	102735	2
>	Ge	72		ug/L			608948	596075	2
	Ni	60	13.771	ug/L	0.530	3	28	53020	2
	Ni	62	15.404	ug/L	0.357	2	64	8541	1
	Cu	63	11.081	ug/L	0.325	2	101	97084	1
	Cu	65	11.424	ug/L	0.335	2	39	44088	0
	Zn	66	88.046	ug/L	3.648	4	991	198815	2
	Zn	67	96.905	ug/L	2.905	2	141	36622	1
	Zn	68	93.938	ug/L	3.139	3	706	150230	1
	As	75	7.323	ug/L	0.226	3	318	15549	1
	As-1	75	7.433	ug/L	0.347	4	12623	27434	0
	Se	82	-0.101	ug/L	0.063	62	-10	-35	46
	Se	78	0.056	ug/L	0.478	860	12864	12620	0
	Mo	98	0.399	ug/L	0.023	5	28	2255	3
	Y	89		ug/L			406158	553312	2
	Kr	83		ug/L			794	1095	4
>	In	115		ug/L			1093664	1079361	0
	Ag	107	~0.087	ug/L	0.007	8	42	1342	8
	Cd	111	0.741	ug/L	0.013	1	115	4031	1
	Cd	114	0.609	ug/L	0.005	0	65	7985	0
	Sb	121	0.053	ug/L	0.003	5	182	996	4
	Sb	123	0.050	ug/L	0.002	3	151	740	3
	Ba	135	215.972	ug/L	0.879	0	15	1026743	0
	Ba	137	218.583	ug/L	3.201	1	26	1804189	1
>	Tb	159		ug/L			1253683	1256254	1
	Tl	205	0.137	ug/L	0.003	1	128	4933	0
	Pb	208	52.268	ug/L	1.120	2	347	2392495	1
	Bi	209		ug/L			2594753	2507564	0
	Th	232	4.967	ug/L	0.108	2	1408	226061	0
	U	238	0.756	ug/L	0.016	2	31	36744	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:28:34
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	908770 ✓	0
[	Be	9	49.177	ug/L	1.201	2	23	158275	1
	C	13		ug/L			82469	85898	1
	Cl	37		ug/L			4833777	4938363	3
[>	Sc	45		ug/L			1144296	1134662 ✓	0
[	V	51	49.037	ug/L	0.707	1	9450	1041113	2
[	V-1	51	49.215	ug/L	0.786	1	48	1037864	2
[	Cr	52	49.721	ug/L	0.255	0	27897	901276	0
[	Cr	53	50.316	ug/L	0.250	0	145	100805	0
[	Mn	55	48.686	ug/L	0.161	0	487	1189889	0
[	Co	59	50.569	ug/L	0.676	1	76	908702	1
[>	Ge	72		ug/L			608948	588907 ✓	1
[	Ni	60	50.476	ug/L	0.238	0	28	192033	1
[	Ni	62	48.361	ug/L	1.933	3	64	26358	2
[	Cu	63	49.095	ug/L	0.827	1	101	424876	2
[	Cu	65	50.236	ug/L	0.427	0	39	191487	0
[	Zn	66	49.577	ug/L	0.468	0	991	111074	0
[	Zn	67	49.052	ug/L	0.547	1	141	18387	0
[	Zn	68	50.639	ug/L	1.861	3	706	80338	2
[	As	75	50.444	ug/L	0.461	0	318	104053	0
[	As-1	75	50.375	ug/L	0.874	1	12623	113215	0
[	Se	82	49.751	ug/L	0.720	1	-10	12142	2
[	Se	78	49.498	ug/L	0.911	1	12864	40616	0
[	Mo	98	48.917	ug/L	1.352	2	28	269869	2
	Y	89		ug/L			406158	389398	0
	Kr	83		ug/L			794	820	2
[>	In	115		ug/L			1093664	1058729 ✓	1
[	Ag	107	48.955	ug/L	0.585	1	42	721120	2
[	Cd	111	50.691	ug/L	0.297	0	115	262847	0
[	Cd	114	50.980	ug/L	0.127	0	65	650353	0
[	Sb	121	50.830	ug/L	0.458	0	182	772058	0
[	Sb	123	49.902	ug/L	0.385	0	151	575324	1
[	Ba	135	50.387	ug/L	0.153	0	15	234968	0
[	Ba	137	50.180	ug/L	0.434	0	26	406289	1
[>	Tb	159		ug/L			1253683	1236364 ✓	1
[	Tl	205	49.196	ug/L	0.123	0	128	1697326	0
[	Pb	208	49.540	ug/L	0.592	1	347	2231992	1
[	Bi	209		ug/L			2594753	2474648	0
[	Th	232	51.496	ug/L	0.499	0	1408	2294088	0
[	U	238	51.401	ug/L	0.621	1	31	2455569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:35:26
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	876656	1
[	Be	9	-0.001	ug/L	0.002	191	23	19	32
	C	13		ug/L			82469	82075	0
	Cl	37		ug/L			4833777	4799670	1
[>	Sc	45		ug/L			1144296	1093771	3
[	V	51	0.019	ug/L	0.018	97	9450	9409	0
[	V-1	51	0.001	ug/L	0.001	52	48	70	17
[	Cr	52	0.069	ug/L	0.065	93	27897	27818	0
[	Cr	53	0.009	ug/L	0.003	34	145	157	1
[	Mn	55	0.006	ug/L	0.002	29	487	599	9
[	Co	59	0.000	ug/L	0.000	109	76	80	7
[>	Ge	72		ug/L			608948	565743	0
[	Ni	60	0.003	ug/L	0.002	71	28	38	21
[	Ni	62	0.001	ug/L	0.018	1804	64	60	15
[	Cu	63	0.008	ug/L	0.002	21	101	162	9
[	Cu	65	0.008	ug/L	0.002	24	39	65	10
[	Zn	66	-0.168	ug/L	0.009	5	991	561	3
[	Zn	67	-0.108	ug/L	0.040	36	141	93	15
[	Zn	68	-0.129	ug/L	0.008	5	706	461	1
[	As	75	0.021	ug/L	0.009	42	318	336	4
[	As-1	75	0.219	ug/L	0.025	11	12623	12148	0
[	Se	82	0.032	ug/L	0.075	231	-10	-1	913
[	Se	78	0.743	ug/L	0.064	8	12864	12358	0
[	Mo	98	0.004	ug/L	0.001	28	28	49	12
	Y	89		ug/L			406158	376293	2
	Kr	83		ug/L			794	748	3
[>	In	115		ug/L			1093664	1026642	0
[	Ag	107	-0.000	ug/L	0.000	58	42	34	10
[	Cd	111	-0.002	ug/L	0.002	83	115	96	9
[	Cd	114	-0.001	ug/L	0.000	23	65	51	4
[	Sb	121	0.045	ug/L	0.005	10	182	835	8
[	Sb	123	0.043	ug/L	0.004	8	151	628	7
[	Ba	135	0.006	ug/L	0.001	15	15	42	10
[	Ba	137	0.004	ug/L	0.001	26	26	52	14
[>	Tb	159		ug/L			1253683	1167892	0
[	Tl	205	0.008	ug/L	0.004	55	128	376	37
[	Pb	208	0.000	ug/L	0.001	571	347	330	10
[	Bi	209		ug/L			2594753	2451410	0
[	Th	232	0.057	ug/L	0.001	2	1408	3711	1
[	U	238	0.001	ug/L	0.000	5	31	86	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:41:16
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	899958	0
[	Be	9	-0.002	ug/L	0.003	148	23	17	49
	C	13		ug/L			82469	88433	1
	Cl	37		ug/L			4833777	4711070	1
[>	Sc	45		ug/L			1144296	1134692	2
[	V	51	0.008	ug/L	0.008	98	9450	9543	1
[	V-1	51	0.002	ug/L	0.001	33	48	96	14
[	Cr	52	0.029	ug/L	0.031	107	27897	28164	0
[	Cr	53	0.009	ug/L	0.008	88	145	161	7
[	Mn	55	0.032	ug/L	0.014	43	487	1254	24
[	Co	59	0.002	ug/L	0.001	43	76	103	10
[>	Ge	72		ug/L			608948	572520	0
[	Ni	60	0.004	ug/L	0.002	59	28	41	20
[	Ni	62	0.004	ug/L	0.035	862	64	62	29
[	Cu	63	0.031	ug/L	0.004	12	101	353	9
[	Cu	65	0.027	ug/L	0.002	7	39	137	5
[	Zn	66	-0.068	ug/L	0.017	24	991	785	5
[	Zn	67	-0.012	ug/L	0.012	101	141	129	2
[	Zn	68	-0.049	ug/L	0.020	41	706	589	4
[	As	75	0.023	ug/L	0.017	73	318	344	9
[	As-1	75	0.227	ug/L	0.111	48	12623	12308	1
[	Se	82	0.046	ug/L	0.060	129	-10	1	1039
[	Se	78	0.787	ug/L	0.427	54	12864	12529	1
[	Mo	98	0.001	ug/L	0.001	78	28	31	10
	Y	89		ug/L			406158	377789	1
	Kr	83		ug/L			794	763	3
[>	In	115		ug/L			1093664	1052997	0
[	Ag	107	-0.000	ug/L	0.000	148	42	37	15
[	Cd	111	-0.002	ug/L	0.001	63	115	102	6
[	Cd	114	-0.000	ug/L	0.000	133	65	60	4
[	Sb	121	0.008	ug/L	0.001	16	182	303	6
[	Sb	123	0.006	ug/L	0.003	48	151	218	15
[	Ba	135	0.014	ug/L	0.003	22	15	80	19
[	Ba	137	0.012	ug/L	0.003	24	26	124	19
[>	Tb	159		ug/L			1253683	1188271	0
[	Tl	205	0.005	ug/L	0.002	46	128	285	26
[	Pb	208	0.008	ug/L	0.001	12	347	660	6
[	Bi	209		ug/L			2594753	2463639	0
[	Th	232	0.034	ug/L	0.006	17	1408	2784	9
[	U	238	0.000	ug/L	0.000	79	31	41	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:45:23
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	883627	0
[	Be	9	24.551	ug/L	0.023	0	23	76850	0
	C	13		ug/L			82469	86990	1
	Cl	37		ug/L			4833777	4846774	2
[>	Sc	45		ug/L			1144296	1125303	2
[	V	51	25.100	ug/L	0.930	3	9450	532699	1
[	V-1	51	25.032	ug/L	0.786	3	48	523266	0
[	Cr	52	25.737	ug/L	1.397	5	27897	475519	2
[	Cr	53	25.504	ug/L	0.887	3	145	50717	1
[	Mn	55	25.283	ug/L	0.350	1	487	612915	1
[	Co	59	25.772	ug/L	1.168	4	76	459012	2
[>	Ge	72		ug/L			608948	577142	0
[	Ni	60	26.155	ug/L	0.322	1	28	97532	1
[	Ni	62	25.458	ug/L	0.612	2	64	13631	1
[	Cu	63	26.734	ug/L	0.267	0	101	226750	0
[	Cu	65	26.691	ug/L	0.536	2	39	99738	2
[	Zn	66	82.471	ug/L	1.344	1	991	180485	2
[	Zn	67	76.240	ug/L	1.168	1	141	27938	1
[	Zn	68	80.256	ug/L	1.315	1	706	124444	2
[	As	75	27.049	ug/L	0.681	2	318	54820	1
[	As-1	75	25.836	ug/L	0.184	0	12623	62742	0
[	Se	82	79.281	ug/L	1.815	2	-10	18964	1
[	Se	78	79.766	ug/L	0.669	0	12864	56699	1
[	Mo	98	24.276	ug/L	0.446	1	28	131269	1
	Y	89		ug/L			406158	384734	1
	Kr	83		ug/L			794	809	2
[>	In	115		ug/L			1093664	1056027	1
[	Ag	107	25.435	ug/L	0.705	2	42	373620	1
[	Cd	111	24.895	ug/L	0.303	1	115	128806	0
[	Cd	114	25.128	ug/L	0.333	1	65	319743	0
[	Sb	121	24.896	ug/L	0.278	1	182	377261	0
[	Sb	123	24.890	ug/L	0.580	2	151	286242	1
[	Ba	135	25.580	ug/L	0.263	1	15	118983	1
[	Ba	137	25.413	ug/L	0.148	0	26	205244	1
[>	Tb	159		ug/L			1253683	1197166	0
[	Tl	205	26.276	ug/L	0.081	0	128	877876	0
[	Pb	208	26.250	ug/L	0.020	0	347	1145388	0
[	Bi	209		ug/L			2594753	2508446	0
[	Th	232	25.606	ug/L	0.297	1	1408	1105310	1
[	U	238	25.683	ug/L	0.218	0	31	1188152	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:49:31
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	916718	0
	Be	9	0.478	ug/L	0.037	7	23	1574	6
	C	13		ug/L			82469	114617	1
	Cl	37		ug/L			4833777	4640620	3
>	Sc	45		ug/L			1144296	1226137	3
	V	51	20.301	ug/L	0.929	4	9450	471240	2
	V-1	51	20.392	ug/L	0.978	4	48	464260	2
	Cr	52	13.479	ug/L	0.345	2	27897	285671	1
	Cr	53	13.837	ug/L	0.505	3	145	30048	2
	Mn	55	860.529	ug/L	23.120	2	487	22706077	1
	Co	59	4.690	ug/L	0.150	3	76	91071	0
>	Ge	72		ug/L			608948	601099	1
	Ni	60	12.369	ug/L	0.533	4	28	48024	2
	Ni	62	13.328	ug/L	0.241	1	64	7461	0
	Cu	63	9.841	ug/L	0.523	5	101	86938	3
	Cu	65	10.035	ug/L	0.161	1	39	39072	1
	Zn	66	60.525	ug/L	1.269	2	991	138175	1
	Zn	67	74.757	ug/L	1.318	1	141	28531	2
	Zn	68	70.118	ug/L	2.712	3	706	113261	1
	As	75	4.554	ug/L	0.213	4	318	9869	2
	As-1	75	4.513	ug/L	0.278	6	12623	21691	0
	Se	82	-0.065	ug/L	0.087	134	-10	-26	84
	Se	78	-0.197	ug/L	0.356	180	12864	12582	1
	Mo	98	0.396	ug/L	0.016	4	28	2254	2
	Y	89		ug/L			406158	516961	0
	Kr	83		ug/L			794	1097	4
>	In	115		ug/L			1093664	1077964	1
	Ag	107	~0.095	ug/L	0.004	3	42	1469	3
	Cd	111	0.573	ug/L	0.021	3	115	3136	4
	Cd	114	0.415	ug/L	0.008	1	65	5451	0
	Sb	121	0.082	ug/L	0.003	3	182	1453	1
	Sb	123	0.085	ug/L	0.009	10	151	1152	7
	Ba	135	241.892	ug/L	6.177	2	15	1148255	1
	Ba	137	239.592	ug/L	4.402	1	26	1974816	0
>	Tb	159		ug/L			1253683	1273472	0
	Tl	205	0.106	ug/L	0.002	1	128	3910	0
	Pb	208	21.642	ug/L	0.366	1	347	1004463	0
	Bi	209		ug/L			2594753	2499345	1
	Th	232	4.402	ug/L	0.064	1	1408	203291	0
	U	238	0.736	ug/L	0.027	3	31	36263	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:53:38
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	920441	1
[	Be	9	0.489	ug/L	0.009	1	23	1616	0
	C	13		ug/L			82469	103475	3
	Cl	37		ug/L			4833777	4614911	3
[>	Sc	45		ug/L			1144296	1223341	1
[	V	51	21.075	ug/L	0.114	0	9450	488167	2
[	V-1	51	21.151	ug/L	0.037	0	48	480890	1
[	Cr	52	13.910	ug/L	0.134	0	27897	293308	1
[	Cr	53	14.219	ug/L	0.431	3	145	30816	1
[	Mn	55	289.740	ug/L	6.172	2	487	7630564	0
[	Co	59	4.929	ug/L	0.098	1	76	95539	0
[>	Ge	72		ug/L			608948	596701	0
[	Ni	60	12.341	ug/L	0.118	0	28	47592	0
[	Ni	62	13.457	ug/L	0.117	0	64	7480	0
[	Cu	63	11.531	ug/L	0.277	2	101	101173	2
[	Cu	65	12.039	ug/L	0.133	1	39	46529	1
[	Zn	66	42.545	ug/L	0.592	1	991	96730	1
[	Zn	67	52.668	ug/L	0.038	0	141	19996	0
[	Zn	68	47.658	ug/L	0.239	0	706	76678	0
[	As	75	3.138	ug/L	0.041	1	318	6852	1
[	As-1	75	3.101	ug/L	0.023	0	12623	18670	0
[	Se	82	-0.052	ug/L	0.073	138	-10	-22	78
[	Se	78	-0.032	ug/L	0.152	482	12864	12588	0
[	Mo	98	0.277	ug/L	0.009	3	28	1579	2
	Y	89		ug/L			406158	527808	1
	Kr	83		ug/L			794	1099	2
[>	In	115		ug/L			1093664	1054317	0
[	Ag	107	~0.125	ug/L	0.003	2	42	1872	2
[	Cd	111	0.382	ug/L	0.029	7	115	2081	7
[	Cd	114	0.200	ug/L	0.003	1	65	2609	1
[	Sb	121	0.041	ug/L	0.002	6	182	793	4
[	Sb	123	0.043	ug/L	0.003	6	151	635	4
[	Ba	135	148.150	ug/L	0.465	0	15	687974	0
[	Ba	137	147.785	ug/L	1.661	1	26	1191543	1
[>	Tb	159		ug/L			1253683	1253978	0
[	Tl	205	0.091	ug/L	0.002	2	128	3329	2
[	Pb	208	8.806	ug/L	0.125	1	347	402668	0
[	Bi	209		ug/L			2594753	2478043	1
[	Th	232	4.595	ug/L	0.044	0	1408	208893	0
[	U	238	0.864	ug/L	0.015	1	31	41901	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:57:46
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	933541	2
[	Be	9	0.415	ug/L	0.006	1	23	1395	3
	C	13		ug/L			82469	100862	3
	Cl	37		ug/L			4833777	4764082	2
[>	Sc	45		ug/L			1144296	1213594	2
[	V	51	23.279	ug/L	0.477	2	9450	533728	1
[	V-1	51	23.283	ug/L	0.512	2	48	525017	1
[	Cr	52	15.257	ug/L	0.173	1	27897	316308	2
[	Cr	53	15.331	ug/L	0.067	0	145	32957	1
[	Mn	55	276.941	ug/L	3.469	1	487	7236594	2
[	Co	59	5.091	ug/L	0.112	2	76	97909	3
[>	Ge	72		ug/L			608948	592665	2
[	Ni	60	12.916	ug/L	0.366	2	28	49451	0
[	Ni	62	13.842	ug/L	0.622	4	64	7635	2
[	Cu	63	11.290	ug/L	0.225	1	101	98374	1
[	Cu	65	11.471	ug/L	0.326	2	39	44018	0
[	Zn	66	39.534	ug/L	0.557	1	991	89325	0
[	Zn	67	45.871	ug/L	1.208	2	141	17312	2
[	Zn	68	43.382	ug/L	0.647	1	706	69376	1
[	As	75	3.471	ug/L	0.014	0	318	7494	1
[	As-1	75	3.521	ug/L	0.134	3	12623	19388	0
[	Se	82	-0.083	ug/L	0.065	78	-10	-30	50
[	Se	78	0.205	ug/L	0.408	199	12864	12634	0
[	Mo	98	0.317	ug/L	0.004	1	28	1787	1
	Y	89		ug/L			406158	520504	0
	Kr	83		ug/L			794	1084	2
[>	In	115		ug/L			1093664	1069948	1
[	Ag	107	0.094	ug/L	0.005	5	42	1438	4
[	Cd	111	0.288	ug/L	0.019	6	115	1621	7
[	Cd	114	0.127	ug/L	0.002	1	65	1695	1
[	Sb	121	0.018	ug/L	0.001	5	182	458	1
[	Sb	123	0.016	ug/L	0.002	9	151	333	6
[	Ba	135	105.794	ug/L	1.314	1	15	498559	1
[	Ba	137	104.961	ug/L	0.564	0	26	858787	0
[>	Tb	159		ug/L			1253683	1250465	0
[	Tl	205	0.081	ug/L	0.001	1	128	2949	2
[	Pb	208	8.493	ug/L	0.112	1	347	387285	0
[	Bi	209		ug/L			2594753	2468522	1
[	Th	232	5.550	ug/L	0.078	1	1408	251331	0
[	U	238	0.798	ug/L	0.006	0	31	38570	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:01:53
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	927709	1
	Be	9	0.390	ug/L	0.015	3	23	1304	4
	C	13		ug/L			82469	112987	1
	Cl	37		ug/L			4833777	4764523	3
>	Sc	45		ug/L			1144296	1228678	0
	V	51	18.991	ug/L	0.096	0	9450	442792	0
	V-1	51	19.033	ug/L	0.145	0	48	434635	0
	Cr	52	20.374	ug/L	0.122	0	27897	417589	0
	Cr	53	20.507	ug/L	0.301	1	145	44578	1
	Mn	55	643.559	ug/L	6.121	0	487	17025020	0
	Co	59	5.496	ug/L	0.191	3	76	107000	3
>	Ge	72		ug/L			608948	595704	1
	Ni	60	14.066	ug/L	0.448	3	28	54142	2
	Ni	62	14.767	ug/L	0.486	3	64	8185	2
	Cu	63	14.395	ug/L	0.352	2	101	126046	1
	Cu	65	14.712	ug/L	0.401	2	39	56745	1
	Zn	66	142.425	ug/L	1.962	1	991	320952	0
	Zn	67	143.797	ug/L	4.301	2	141	54253	2
	Zn	68	151.811	ug/L	5.794	3	706	242250	2
	As	75	8.182	ug/L	0.178	2	318	17331	0
	As-1	75	8.241	ug/L	0.227	2	12623	29062	0
	Se	82	0.010	ug/L	0.046	478	-10	-7	151
	Se	78	-0.154	ug/L	0.187	121	12864	12495	0
	Mo	98	0.338	ug/L	0.011	3	28	1917	4
	Y	89		ug/L			406158	519200	0
	Kr	83		ug/L			794	1041	1
>	In	115		ug/L			1093664	1086133	1
	Ag	107	0.090	ug/L	0.004	4	42	1398	3
	Cd	111	2.287	ug/L	0.054	2	115	12271	1
	Cd	114	2.200	ug/L	0.039	1	65	28845	1
	Sb	121	0.134	ug/L	0.004	2	182	2272	1
	Sb	123	0.134	ug/L	0.002	1	151	1738	0
	Ba	135	268.392	ug/L	1.752	0	15	1283878	0
	Ba	137	274.410	ug/L	5.533	2	26	2278874	0
>	Tb	159		ug/L			1253683	1264925	1
	Tl	205	0.124	ug/L	0.002	2	128	4497	2
	Pb	208	101.925	ug/L	1.514	1	347	4697453	0
	Bi	209		ug/L			2594753	2501859	0
	Th	232	4.709	ug/L	0.060	1	1408	215906	0
	U	238	0.494	ug/L	0.007	1	31	24199	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 16:07:05
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\111912.cal

V Cr Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	906886	1
[	Be	9	0.183	ug/L	0.007	3	23	610	2
	C	13		ug/L			82469	100521	3
	Cl	37		ug/L			4833777	4844027	3
[>	Sc	45		ug/L			1144296	1185910	1
[	V	51	7.359	ug/L	0.190	2	9450	171575	1
[	V-1	51	7.253	ug/L	0.119	1	48	159876	0
[	Cr	52	18.977	ug/L	0.676	3	27897	377284	1
[	Cr	53	18.532	ug/L	0.463	2	145	38891	1
[	Mn	55	531.699	ug/L	8.572	1	487	13575654	1
[	Co	59	4.494	ug/L	0.128	2	76	84458	1
[>	Ge	72		ug/L			608948	586038	0
[	Ni	60	16.468	ug/L	0.154	0	28	62362	0
[	Ni	62	16.722	ug/L	0.418	2	64	9113	2
[	Cu	63	10.668	ug/L	0.131	1	101	91936	1
[	Cu	65	10.842	ug/L	0.121	1	39	41158	1
[	Zn	66	147.498	ug/L	4.269	2	991	326995	2
[	Zn	67	142.459	ug/L	2.771	1	141	52887	1
[	Zn	68	150.863	ug/L	3.439	2	706	236926	2
[	As	75	3.815	ug/L	0.029	0	318	8115	0
[	As-1	75	3.923	ug/L	0.057	1	12623	19977	0
[	Se	82	0.092	ug/L	0.041	44	-10	12	79
[	Se	78	0.208	ug/L	0.188	90	12864	12498	0
[	Mo	98	0.155	ug/L	0.003	2	28	881	2
	Y	89		ug/L			406158	445454	1
	Kr	83		ug/L			794	815	2
[>	In	115		ug/L			1093664	1101014	0
[	Ag	107	0.062	ug/L	0.002	2	42	989	3
[	Cd	111	2.568	ug/L	0.045	1	115	13955	1
[	Cd	114	2.491	ug/L	0.050	1	65	33106	1
[	Sb	121	0.044	ug/L	0.004	7	182	886	5
[	Sb	123	0.042	ug/L	0.001	2	151	655	1
[	Ba	135	188.786	ug/L	0.952	0	15	915480	0
[	Ba	137	187.909	ug/L	1.153	0	26	1582177	1
[>	Tb	159		ug/L			1253683	1239269	1
[	Tl	205	0.131	ug/L	0.002	1	128	4661	0
[	Pb	208	110.543	ug/L	0.922	0	347	4991652	1
[	Bi	209		ug/L			2594753	2531448	0
[	Th	232	1.406	ug/L	0.016	1	1408	64126	1
[	U	238	0.178	ug/L	0.002	1	31	8554	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:11:12
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	909417	1
	Be	9	0.832	ug/L	0.016	1	23	2704	3
	C	13		ug/L			82469	148394	1
	Cl	37		ug/L			4833777	5123734	1
>	Sc	45		ug/L			1144296	1281224	1
	V	51	31.917	ug/L	0.798	2	9450	768735	2
	V-1	51	31.727	ug/L	0.429	1	48	755497	2
	Cr	52	83.023	ug/L	1.094	1	27897	1678197	0
	Cr	53	81.997	ug/L	1.529	1	145	185402	2
	Mn	55	2312.041	ug/L	42.127	1	487	63771132	1
	Co	59	19.372	ug/L	0.581	2	76	393121	3
>	Ge	72		ug/L			608948	585389	1
	Ni	60	76.083	ug/L	0.520	0	28	287712	1
	Ni	62	77.601	ug/L	2.140	2	64	42012	1
	Cu	63	47.863	ug/L	1.363	2	101	411675	2
	Cu	65	48.629	ug/L	1.190	2	39	184280	2
	Zn	66	648.708	ug/L	19.953	3	991	1432946	1
	Zn	67	636.379	ug/L	15.641	2	141	235496	1
	Zn	68	686.783	ug/L	19.863	2	706	1074661	1
	As	75	17.390	ug/L	0.433	2	318	35852	1
	As-1	75	17.668	ug/L	0.531	3	12623	47345	0
	Se	82	0.168	ug/L	0.049	29	-10	31	38
	Se	78	0.147	ug/L	0.346	234	12864	12448	0
	Mo	98	0.714	ug/L	0.013	1	28	3944	3
	Y	89		ug/L			406158	611038	1
	Kr	83		ug/L			794	1158	2
>	In	115		ug/L			1093664	1104588	1
	Ag	107	0.270	ug/L	0.004	1	42	4194	0
	Cd	111	11.228	ug/L	0.163	1	115	60834	1
	Cd	114	11.195	ug/L	0.191	1	65	149040	0
	Sb	121	0.215	ug/L	0.006	2	182	3585	2
	Sb	123	0.207	ug/L	0.001	0	151	2647	1
	Ba	135	897.432	ug/L	13.013	1	15	4365768	1
	Ba	137	886.601	ug/L	10.040	1	26	7488478	0
>	Tb	159		ug/L			1253683	1258545	0
	Tl	205	0.614	ug/L	0.011	1	128	21693	1
	Pb	208	512.663	ug/L	5.144	1	347	23508449	0
	Bi	209		ug/L			2594753	2430312	0
	Th	232	6.397	ug/L	0.023	0	1408	291352	0
	U	238	0.817	ug/L	0.008	0	31	39765	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 16:15:20
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\111912.cal

V Cr Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	917752	0
[	**Be**	**9**	**0.176**	ug/L	0.013	7	23	594	7
	C	**13**		ug/L			82469	97876	3
	Cl	**37**		ug/L			4833777	4885750	0
[>	**Sc**	**45**		ug/L			1144296	1181392	0
[	**V**	**51**	**7.557**	ug/L	0.026	0	9450	175302	0
[	**V-1**	**51**	**7.613**	ug/L	0.048	0	48	167193	0
[	**Cr**	**52**	**21.482**	ug/L	0.135	0	27897	421792	0
[	**Cr**	**53**	**21.565**	ug/L	0.330	1	145	45069	1
[	**Mn**	**55**	**360.287**	ug/L	1.226	0	487	9164930	0
[	**Co**	**59**	**4.456**	ug/L	0.071	1	76	83432	1
[>	**Ge**	**72**		ug/L			608948	594744	2
[	**Ni**	**60**	**19.347**	ug/L	0.412	2	28	74334	1
[	**Ni**	**62**	**19.641**	ug/L	0.820	4	64	10850	3
[	**Cu**	**63**	**8.924**	ug/L	0.214	2	101	78043	1
[	**Cu**	**65**	**9.167**	ug/L	0.275	2	39	35312	2
[	**Zn**	**66**	**96.045**	ug/L	1.968	2	991	216373	0
[	**Zn**	**67**	**97.557**	ug/L	4.953	5	141	36779	3
[	**Zn**	**68**	**100.375**	ug/L	2.857	2	706	160144	1
[	**As**	**75**	**3.424**	ug/L	0.039	1	318	7422	1
[	**As-1**	**75**	**3.431**	ug/L	0.233	6	12623	19272	0
[	**Se**	**82**	**0.049**	ug/L	0.068	137	-10	2	719
[	**Se**	**78**	**-0.117**	ug/L	0.668	572	12864	12492	1
[	**Mo**	**98**	**0.142**	ug/L	0.001	0	28	817	2
	Y	**89**		ug/L			406158	441118	3
	Kr	**83**		ug/L			794	856	0
[>	**In**	**115**		ug/L			1093664	1084684	1
[	**Ag**	**107**	**0.059**	ug/L	0.002	3	42	935	2
[	**Cd**	**111**	**1.478**	ug/L	0.045	3	115	7961	1
[	**Cd**	**114**	**1.432**	ug/L	0.039	2	65	18775	1
[	**Sb**	**121**	**0.015**	ug/L	0.001	5	182	413	1
[	**Sb**	**123**	**0.015**	ug/L	0.002	12	151	326	5
[	**Ba**	**135**	**157.830**	ug/L	3.522	2	15	753851	0
[	**Ba**	**137**	**157.037**	ug/L	2.737	1	26	1302378	0
[>	**Tb**	**159**		ug/L			1253683	1229351	0
[	**Tl**	**205**	**0.105**	ug/L	0.003	2	128	3715	1
[	**Pb**	**208**	**71.243**	ug/L	0.529	0	347	3191486	0
[	**Bi**	**209**		ug/L			2594753	2497975	1
[	**Th**	**232**	**1.291**	ug/L	0.011	0	1408	58520	0
[	**U**	**238**	**0.176**	ug/L	0.001	0	31	8373	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:19:27
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	926839	1
[	**Be**	**9**	**0.861**	ug/L	0.029	3	23	2847	2
	C	**13**		ug/L			82469	140938	1
	Cl	**37**		ug/L			4833777	4876213	1
[>	**Sc**	**45**		ug/L			1144296	1329777	2
[	**V**	**51**	**35.045**	ug/L	0.712	2	9450	875217	3
[	**V-1**	**51**	**34.540**	ug/L	0.824	2	48	853368	1
[	**Cr**	**52**	**99.953**	ug/L	2.027	2	27897	2090226	1
[	**Cr**	**53**	**97.763**	ug/L	5.199	5	145	229208	3
[	**Mn**	**55**	**1578.929**	ug/L	16.272	1	487	45202034	1
[	**Co**	**59**	**19.543**	ug/L	0.517	2	76	411507	2
[>	**Ge**	**72**		ug/L			608948	588402	0
[	**Ni**	**60**	**95.713**	ug/L	2.159	2	28	363746	1
[	**Ni**	**62**	**98.281**	ug/L	1.651	1	64	53474	0
[	**Cu**	**63**	**43.981**	ug/L	0.848	1	101	380268	2
[	**Cu**	**65**	**45.190**	ug/L	1.033	2	39	172121	2
[	**Zn**	**66**	**446.542**	ug/L	6.613	1	991	991992	1
[	**Zn**	**67**	**454.711**	ug/L	7.106	1	141	169193	1
[	**Zn**	**68**	**467.935**	ug/L	7.941	1	706	736310	0
[	**As**	**75**	**16.723**	ug/L	0.065	0	318	34674	0
[	**As-1**	**75**	**17.010**	ug/L	0.148	0	12623	46279	0
[	**Se**	**82**	**0.028**	ug/L	0.070	253	-10	-2	574
[	**Se**	**78**	**0.197**	ug/L	0.257	130	12864	12542	0
[	**Mo**	**98**	**0.706**	ug/L	0.020	2	28	3918	2
	Y	**89**		ug/L			406158	598325	1
	Kr	**83**		ug/L			794	1244	0
[>	**In**	**115**		ug/L			1093664	1116755	1
[	**Ag**	**107**	**0.273**	ug/L	0.009	3	42	4286	3
[	**Cd**	**111**	**6.746**	ug/L	0.125	1	115	36992	0
[	**Cd**	**114**	**6.577**	ug/L	0.060	0	65	88571	2
[	**Sb**	**121**	**0.093**	ug/L	0.002	1	182	1674	0
[	**Sb**	**123**	**0.092**	ug/L	0.005	5	151	1267	3
[	**Ba**	**135**	**781.757**	ug/L	14.859	1	15	3844774	1
[	**Ba**	**137**	**777.428**	ug/L	17.815	2	26	6638076	1
[>	**Tb**	**159**		ug/L			1253683	1257809	0
[	**Tl**	**205**	**0.521**	ug/L	0.007	1	128	18417	1
[	**Pb**	**208**	**356.615**	ug/L	3.328	0	347	16343454	0
[	**Bi**	**209**		ug/L			2594753	2434150	0
[	**Th**	**232**	**6.350**	ug/L	0.097	1	1408	289049	0
[	**U**	**238**	**0.840**	ug/L	0.019	2	31	40871	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 16:23:36
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	896633 ✓	1
[	Be	9	50.153	ug/L	0.433	0	23	159267	1
	C	13		ug/L			82469	82279	2
	Cl	37		ug/L			4833777	4946278	1
[>	Sc	45		ug/L			1144296	1135888 ✓	1
|	V	51	49.833	ug/L	1.009	2	9450	1058871	2
|	V-1	51	49.761	ug/L	1.395	2	48	1050297	2
|	Cr	52	50.402	ug/L	0.612	1	27897	914351	2
|	Cr	53	50.155	ug/L	0.915	1	145	100579	1
|	Mn	55	49.946	ug/L	1.569	3	487	1221584	1
[	Co	59	49.336	ug/L	0.314	0	76	887426	1
[>	Ge	72		ug/L			608948	578598 ✓	0
|	Ni	60	50.303	ug/L	1.102	2	28	188005	1
|	Ni	62	49.159	ug/L	0.755	1	64	26332	1
|	Cu	63	50.489	ug/L	0.582	1	101	429236	0
|	Cu	65	51.021	ug/L	0.752	1	39	191083	0
|	Zn	66	50.085	ug/L	0.656	1	991	110253	1
|	Zn	67	50.809	ug/L	0.290	0	141	18710	0
|	Zn	68	50.783	ug/L	1.166	2	706	79178	1
|	As	75	50.601	ug/L	0.482	0	318	102556	0
|	As-1	75	50.646	ug/L	0.272	0	12623	111784	0
|	Se	82	50.332	ug/L	1.203	2	-10	12066	1
|	Se	78	50.492	ug/L	0.574	1	12864	40466	0
[	Mo	98	50.092	ug/L	1.293	2	28	271506	2
	Y	89		ug/L			406158	384730	0
	Kr	83		ug/L			794	789	4
[>	In	115		ug/L			1093664	1039243 ✓	0
|	Ag	107	49.196	ug/L	1.312	2	42	711321	2
|	Cd	111	50.586	ug/L	1.112	2	115	257493	2
|	Cd	114	51.618	ug/L	0.442	0	65	646382	1
|	Sb	121	51.087	ug/L	0.012	0	182	761722	0
|	Sb	123	50.523	ug/L	0.891	1	151	571766	1
|	Ba	135	50.427	ug/L	0.708	1	15	230836	1
[	Ba	137	50.637	ug/L	0.255	0	26	402449	0
[>	Tb	159		ug/L			1253683	1195386 ✓	0
|	Tl	205	49.988	ug/L	1.110	2	128	1667347	1
|	Pb	208	50.184	ug/L	0.806	1	347	2185955	0
|	Bi	209		ug/L			2594753	2399371	1
|	Th	232	52.689	ug/L	1.151	2	1408	2269382	1
[	U	238	53.276	ug/L	0.580	1	31	2460937	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 16:30:29
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	858012	0
[	Be	9	0.003	ug/L	0.008	252	23	31	73
	C	13		ug/L			82469	81067	2
	Cl	37		ug/L			4833777	4759199	0
[>	Sc	45		ug/L			1144296	1116609	1
[	V	51	0.019	ug/L	0.017	89	9450	9602	2
[	V-1	51	0.009	ug/L	0.011	122	48	231	96
[	Cr	52	0.049	ug/L	0.041	82	27897	28063	1
[	Cr	53	0.016	ug/L	0.015	93	145	174	16
[	Mn	55	0.165	ug/L	0.193	117	487	4400	103
[	Co	59	0.007	ug/L	0.008	115	76	191	69
[>	Ge	72		ug/L			608948	572798	1
[	Ni	60	0.015	ug/L	0.016	108	28	81	71
[	Ni	62	-0.008	ug/L	0.011	141	64	56	9
[	Cu	63	0.012	ug/L	0.013	102	101	198	52
[	Cu	65	0.012	ug/L	0.011	90	39	82	48
[	Zn	66	-0.226	ug/L	0.057	25	991	442	26
[	Zn	67	-0.198	ug/L	0.048	24	141	61	27
[	Zn	68	-0.201	ug/L	0.058	28	706	356	23
[	As	75	0.027	ug/L	0.007	26	318	352	3
[	As-1	75	0.141	ug/L	0.164	116	12623	12145	1
[	Se	82	0.043	ug/L	0.054	125	-10	0	2179
[	Se	78	0.494	ug/L	0.561	113	12864	12371	1
[	Mo	98	0.008	ug/L	0.006	77	28	68	45
	Y	89		ug/L			406158	372856	1
	Kr	83		ug/L			794	781	5
[>	In	115		ug/L			1093664	1038259	1
[	Ag	107	0.003	ug/L	0.005	136	42	89	76
[	Cd	111	0.002	ug/L	0.005	212	115	121	20
[	Cd	114	0.004	ug/L	0.006	166	65	107	70
[	Sb	121	0.044	ug/L	0.010	23	182	822	18
[	Sb	123	0.042	ug/L	0.007	16	151	621	12
[	Ba	135	0.052	ug/L	0.044	85	15	250	81
[	Ba	137	0.049	ug/L	0.042	85	26	418	81
[>	Tb	159		ug/L			1253683	1155718	0
[	Tl	205	0.010	ug/L	0.008	78	128	435	56
[	Pb	208	0.022	ug/L	0.022	101	347	1242	75
[	Bi	209		ug/L			2594753	2449475	0
[	Th	232	0.070	ug/L	0.010	13	1408	4199	9
[	U	238	0.006	ug/L	0.006	102	31	290	92

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 16:35:37
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	907032	0
[	Be	9	0.088	ug/L	0.004	4	23	304	4
	C	13		ug/L			82469	96554	2
	Cl	37		ug/L			4833777	4761619	1
[>	Sc	45		ug/L			1144296	1154512	1
[	V	51	3.626	ug/L	0.020	0	9450	87150	0
[	V-1	51	3.621	ug/L	0.008	0	48	77734	1
[	Cr	52	4.066	ug/L	0.182	4	27897	100807	1
[	Cr	53	4.045	ug/L	0.090	2	145	8380	0
[	Mn	55	194.435	ug/L	1.738	0	487	4833767	1
[	Co	59	1.320	ug/L	0.041	3	76	24198	2
[>	Ge	72		ug/L			608948	584256	0
[	Ni	60	4.303	ug/L	0.053	1	28	16265	0
[	Ni	62	4.373	ug/L	0.091	2	64	2421	2
[	Cu	63	5.695	ug/L	0.178	3	101	48968	2
[	Cu	65	5.817	ug/L	0.119	2	39	22031	2
[	Zn	66	79.666	ug/L	1.013	1	991	176519	1
[	Zn	67	76.200	ug/L	1.499	1	141	28264	1
[	Zn	68	80.617	ug/L	2.238	2	706	126519	2
[	As	75	2.703	ug/L	0.049	1	318	5821	1
[	As-1	75	2.758	ug/L	0.102	3	12623	17598	0
[	Se	82	0.085	ug/L	0.070	82	-10	10	158
[	Se	78	0.090	ug/L	0.276	305	12864	12393	0
[	Mo	98	0.061	ug/L	0.006	10	28	363	10
	Y	89		ug/L			406158	406907	2
	Kr	83		ug/L			794	795	1
[>	In	115		ug/L			1093664	1061058	1
[	Ag	107	0.045	ug/L	0.002	3	42	711	2
[	Cd	111	1.563	ug/L	0.005	0	115	8229	1
[	Cd	114	1.555	ug/L	0.016	1	65	19945	1
[	Sb	121	0.133	ug/L	0.004	3	182	2202	3
[	Sb	123	0.132	ug/L	0.006	4	151	1672	4
[	Ba	135	53.935	ug/L	0.189	0	15	252064	0
[	Ba	137	53.190	ug/L	0.462	0	26	431591	0
[>	Tb	159		ug/L			1253683	1196951	1
[	Tl	205	0.074	ug/L	0.005	6	128	2608	5
[	Pb	208	86.029	ug/L	2.084	2	347	3751681	1
[	Bi	209		ug/L			2594753	2504865	0
[	Th	232	0.751	ug/L	0.017	2	1408	33706	1
[	U	238	0.143	ug/L	0.002	1	31	6659	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:39:45
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	912729	2
[	**Be**	**9**	**0.426**	ug/L	0.012	2	23	1401	1
	C	**13**		ug/L			82469	142917	2
	Cl	**37**		ug/L			4833777	4764708	3
[>	**Sc**	**45**		ug/L			1144296	1212662	1
[	**V**	**51**	**17.155**	ug/L	0.657	3	9450	395588	2
[	**V-1**	**51**	**17.183**	ug/L	0.652	3	48	387133	2
[	**Cr**	**52**	**19.793**	ug/L	0.310	1	27897	401189	0
[	**Cr**	**53**	**19.869**	ug/L	0.316	1	145	42630	0
[	**Mn**	**55**	**940.101**	ug/L	37.599	3	487	24537435	2
[	**Co**	**59**	**6.250**	ug/L	0.076	1	76	120086	0
[>	**Ge**	**72**		ug/L			608948	584747	1
[	**Ni**	**60**	**21.496**	ug/L	0.268	1	28	81207	0
[	**Ni**	**62**	**22.225**	ug/L	0.536	2	64	12063	1
[	**Cu**	**63**	**27.782**	ug/L	0.776	2	101	238693	1
[	**Cu**	**65**	**27.950**	ug/L	0.231	0	39	105811	1
[	**Zn**	**66**	**392.428**	ug/L	19.360	4	991	866153	3
[	**Zn**	**67**	**364.336**	ug/L	7.173	1	141	134774	3
[	**Zn**	**68**	**387.587**	ug/L	10.824	2	706	606117	1
[	**As**	**75**	**13.336**	ug/L	0.155	1	318	27541	1
[	**As-1**	**75**	**13.595**	ug/L	0.230	1	12623	39189	0
[	**Se**	**82**	**0.180**	ug/L	0.048	26	-10	34	35
[	**Se**	**78**	**0.228**	ug/L	0.415	182	12864	12480	0
[	**Mo**	**98**	**0.289**	ug/L	0.001	0	28	1610	1
	Y	**89**		ug/L			406158	502934	0
	Kr	**83**		ug/L			794	993	4
[>	**In**	**115**		ug/L			1093664	1102252	0
[	**Ag**	**107**	**0.206**	ug/L	0.005	2	42	3197	2
[	**Cd**	**111**	**7.287**	ug/L	0.025	0	115	39440	0
[	**Cd**	**114**	**7.186**	ug/L	0.067	0	65	95490	0
[	**Sb**	**121**	**0.597**	ug/L	0.011	1	182	9629	1
[	**Sb**	**123**	**0.634**	ug/L	0.037	5	151	7766	6
[	**Ba**	**135**	**260.604**	ug/L	1.719	0	15	1265153	0
[	**Ba**	**137**	**269.176**	ug/L	1.858	0	26	2268873	0
[>	**Tb**	**159**		ug/L			1253683	1229205	0
[	**Tl**	**205**	**0.315**	ug/L	0.005	1	128	10925	1
[	**Pb**	**208**	**430.296**	ug/L	2.824	0	347	19272430	0
[	**Bi**	**209**		ug/L			2594753	2487903	0
[	**Th**	**232**	**3.373**	ug/L	0.017	0	1408	150706	0
[	**U**	**238**	**0.704**	ug/L	0.004	0	31	33449	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:43:52
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	901647	1
[	Be	9	0.430	ug/L	0.015	3	23	1396	3
	C	13		ug/L			82469	147091	1
	Cl	37		ug/L			4833777	4728124	4
[>	Sc	45		ug/L			1144296	1221855	1
[	V	51	16.168	ug/L	0.423	2	9450	376291	1
[	V-1	51	16.081	ug/L	0.253	1	48	365131	0
[	Cr	52	16.760	ug/L	0.334	1	27897	346823	1
[	Cr	53	16.463	ug/L	0.435	2	145	35622	3
[	Mn	55	959.090	ug/L	28.621	2	487	25222549	1
[	Co	59	6.086	ug/L	0.117	1	76	117808	0
[>	Ge	72		ug/L			608948	598192	2
[	Ni	60	16.645	ug/L	0.645	3	28	64299	1
[	Ni	62	17.309	ug/L	0.842	4	64	9620	2
[	Cu	63	27.312	ug/L	0.392	1	101	240050	1
[	Cu	65	27.545	ug/L	1.307	4	39	106616	3
[	Zn	66	385.799	ug/L	8.120	2	991	871198	0
[	Zn	67	366.468	ug/L	6.275	1	141	138629	1
[	Zn	68	388.211	ug/L	7.801	2	706	621015	0
[	As	75	13.532	ug/L	0.530	3	318	28566	1
[	As-1	75	13.730	ug/L	0.647	4	12623	40348	0
[	Se	82	0.247	ug/L	0.077	31	-10	51	38
[	Se	78	0.047	ug/L	0.426	898	12864	12661	0
[	Mo	98	0.293	ug/L	0.014	4	28	1669	2
	Y	89		ug/L			406158	512146	1
	Kr	83		ug/L			794	997	3
[>	In	115		ug/L			1093664	1105284	1
[	Ag	107	0.209	ug/L	0.008	3	42	3254	3
[	Cd	111	7.399	ug/L	0.027	0	115	40151	1
[	Cd	114	7.261	ug/L	0.103	1	65	96754	0
[	Sb	121	0.657	ug/L	0.011	1	182	10596	0
[	Sb	123	0.658	ug/L	0.002	0	151	8071	1
[	Ba	135	265.254	ug/L	2.399	0	15	1291212	0
[	Ba	137	273.795	ug/L	2.435	0	26	2314069	0
[>	Tb	159		ug/L			1253683	1230631	1
[	Tl	205	0.314	ug/L	0.004	1	128	10918	0
[	Pb	208	429.773	ug/L	5.829	1	347	19268946	0
[	Bi	209		ug/L			2594753	2505647	0
[	Th	232	3.467	ug/L	0.060	1	1408	154990	0
[	U	238	0.732	ug/L	0.014	1	31	34856	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:47:59
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	908490	1
	Be	9	23.719	ug/L	0.269	1	23	76329	0
	C	13		ug/L			82469	135321	2
	Cl	37		ug/L			4833777	5004130	2
>	Sc	45		ug/L			1144296	1209326	0
	V	51	40.521	ug/L	0.902	2	9450	918514	1
	V-1	51	40.417	ug/L	0.796	1	48	908303	1
	Cr	52	40.403	ug/L	0.686	1	27897	786050	1
	Cr	53	40.057	ug/L	0.987	2	145	85558	2
	Mn	55	984.577	ug/L	14.908	1	487	25637871	1
	Co	59	29.086	ug/L	0.596	2	76	557082	2
>	Ge	72		ug/L			608948	584402	0
	Ni	60	42.567	ug/L	0.827	1	28	160703	1
	Ni	62	42.537	ug/L	0.339	0	64	23023	0
	Cu	63	51.068	ug/L	1.088	2	101	438522	2
	Cu	65	52.627	ug/L	1.234	2	39	199089	2
	Zn	66	482.031	ug/L	5.737	1	991	1063498	1
	Zn	67	452.672	ug/L	8.194	1	141	167293	1
	Zn	68	471.483	ug/L	2.188	0	706	736918	0
	As	75	40.254	ug/L	0.471	1	318	82469	1
	As-1	75	39.279	ug/L	0.158	0	12623	90285	0
	Se	82	76.170	ug/L	1.355	1	-10	18451	1
	Se	78	76.295	ug/L	0.069	0	12864	55451	0
	Mo	98	21.191	ug/L	0.505	2	28	116035	2
	Y	89		ug/L			406158	521232	0
	Kr	83		ug/L			794	1012	0
>	In	115		ug/L			1093664	1111092	0
	Ag	107	19.626 ✓	ug/L	0.393	2	42	303419	2
	Cd	111	30.405	ug/L	0.496	1	115	165500	1
	Cd	114	29.875	ug/L	0.272	0	65	400014	1
	Sb	121	2.272	ug/L	0.029	1	182	36392	1
	Sb	123	2.293	ug/L	0.014	0	151	27888	0
	Ba	135	289.793	ug/L	4.781	1	15	1418090	1
	Ba	137	298.816	ug/L	3.493	1	26	2538985	1
>	Tb	159		ug/L			1253683	1239499	0
	Tl	205	23.794	ug/L	0.046	0	128	823101	0
	Pb	208	463.306	ug/L	2.566	0	347	20924633	0
	Bi	209		ug/L			2594753	2527207	0
	Th	232	25.580	ug/L	0.210	0	1408	1143206	0
	U	238	24.450	ug/L	0.366	1	31	1171109	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:52:07
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	932994	1
	Be	9	0.426	ug/L	0.021	5	23	1431	4
	C	13		ug/L			82469	122101	1
	Cl	37		ug/L			4833777	4924513	0
>	Sc	45		ug/L			1144296	1236607	3
	V	51	17.948	ug/L	0.805	4	9450	421302	0
	V-1	51	17.889	ug/L	0.729	4	48	410737	0
	Cr	52	15.373	ug/L	0.777	5	27897	324191	1
	Cr	53	15.192	ug/L	0.517	3	145	33254	0
	Mn	55	857.749	ug/L	10.279	1	487	22832315	2
	Co	59	5.178	ug/L	0.174	3	76	101397	0
>	Ge	72		ug/L			608948	600915	2
	Ni	60	12.937	ug/L	0.217	1	28	50232	0
	Ni	62	13.752	ug/L	0.475	3	64	7695	3
	Cu	63	14.896	ug/L	0.485	3	101	131543	1
	Cu	65	14.919	ug/L	0.244	1	39	58045	0
	Zn	66	245.703	ug/L	9.514	3	991	557622	2
	Zn	67	242.480	ug/L	2.142	0	141	92199	1
	Zn	68	254.886	ug/L	8.353	3	706	409780	1
	As	75	8.251	ug/L	0.300	3	318	17623	1
	As-1	75	8.367	ug/L	0.442	5	12623	29566	1
	Se	82	0.027	ug/L	0.036	130	-10	-3	275
	Se	78	0.036	ug/L	0.509	1397	12864	12712	0
	Mo	98	0.360	ug/L	0.007	2	28	2051	0
	Y	89		ug/L			406158	518288	2
	Kr	83		ug/L			794	1035	2
>	In	115		ug/L			1093664	1098430	1
	Ag	107	0.135	ug/L	0.007	5	42	2109	3
	Cd	111	3.818	ug/L	0.092	2	115	20639	0
	Cd	114	3.690	ug/L	0.134	3	65	48878	1
	Sb	121	0.181	ug/L	0.005	2	182	3032	2
	Sb	123	0.179	ug/L	0.002	1	151	2296	0
	Ba	135	310.806	ug/L	8.485	2	15	1503161	0
	Ba	137	315.168	ug/L	6.816	2	26	2646671	0
>	Tb	159		ug/L			1253683	1259705	1
	Tl	205	0.215	ug/L	0.006	2	128	7693	0
	Pb	208	209.897	ug/L	3.270	1	347	9632863	0
	Bi	209		ug/L			2594753	2521348	0
	Th	232	4.321	ug/L	0.082	1	1408	197419	0
	U	238	0.764	ug/L	0.018	2	31	37235	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:56:14
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	915797	1
	Be	9	0.563	ug/L	0.006	1	23	1849	3
	C	13		ug/L			82469	128083	0
	Cl	37		ug/L			4833777	4749391	3
>	Sc	45		ug/L			1144296	1288119	0
	V	51	29.904	ug/L	0.492	1	9450	724803	0
	V-1	51	30.038	ug/L	0.293	0	48	719063	0
	Cr	52	29.733	ug/L	0.607	2	27897	624424	1
	Cr	53	30.186	ug/L	0.653	2	145	68724	2
	Mn	55	836.643	ug/L	3.382	0	487	23204198	0
	Co	59	10.340	ug/L	0.429	4	76	210969	3
>	Ge	72		ug/L			608948	597913	1
	Ni	60	23.038	ug/L	0.435	1	28	88990	1
	Ni	62	24.384	ug/L	0.496	2	64	13528	0
	Cu	63	26.947	ug/L	0.636	2	101	236784	2
	Cu	65	27.861	ug/L	0.244	0	39	107846	0
	Zn	66	306.814	ug/L	6.278	2	991	692823	0
	Zn	67	294.064	ug/L	3.842	1	141	111228	0
	Zn	68	304.387	ug/L	8.934	2	706	486915	2
	As	75	15.227	ug/L	0.075	0	318	32111	1
	As-1	75	15.468	ug/L	0.129	0	12623	43888	0
	Se	82	0.082	ug/L	0.102	124	-10	10	243
	Se	78	0.115	ug/L	0.259	224	12864	12697	0
	Mo	98	0.534	ug/L	0.004	0	28	3018	1
	Y	89		ug/L			406158	588706	0
	Kr	83		ug/L			794	1182	3
>	In	115		ug/L			1093664	1093972	1
	Ag	107	0.243	ug/L	0.008	3	42	3740	2
	Cd	111	5.966	ug/L	0.096	1	115	32066	0
	Cd	114	5.858	ug/L	0.068	1	65	77274	1
	Sb	121	0.318	ug/L	0.010	3	182	5176	2
	Sb	123	0.316	ug/L	0.005	1	151	3919	0
	Ba	135	280.742	ug/L	7.180	2	15	1352458	1
	Ba	137	291.309	ug/L	6.244	2	26	2436696	1
>	Tb	159		ug/L			1253683	1249603	0
	Tl	205	0.329	ug/L	0.010	2	128	11596	3
	Pb	208	236.732	ug/L	0.931	0	347	10779081	0
	Bi	209		ug/L			2594753	2476216	0
	Th	232	5.857	ug/L	0.104	1	1408	265001	1
	U	238	0.768	ug/L	0.002	0	31	37139	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:00:22
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\111912.cal

AM

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	902440	2
[	Be	9	0.538	ug/L	0.005	0	23	1741	1
	C	13		ug/L			82469	122365	0
	Cl	37		ug/L			4833777	4862789	2
[>	Sc	45		ug/L			1144296	1257814	2
[	V	51	30.103	ug/L	1.191	3	9450	712158	2
[	V-1	51	29.966	ug/L	1.183	3	48	700275	3
[	Cr	52	29.203	ug/L	1.135	3	27897	599221	2
[	Cr	53	28.749	ug/L	0.218	0	145	63911	1
[	Mn	55	969.209	ug/L	40.449	4	487	26235646	2
[	Co	59	10.995	ug/L	0.174	1	76	219036	1
[>	Ge	72		ug/L			608948	579197	0
[	Ni	60	25.938	ug/L	0.169	0	28	97065	1
[	Ni	62	26.637	ug/L	0.751	2	64	14311	2
[	Cu	63	29.889	ug/L	0.495	1	101	254420	2
[	Cu	65	30.712	ug/L	0.487	1	39	115156	1
[	Zn	66	327.255	ug/L	4.335	1	991	715900	1
[	Zn	67	314.332	ug/L	4.242	1	141	115169	0
[	Zn	68	325.785	ug/L	4.560	1	706	504860	1
[	As	75	18.671	ug/L	0.229	1	318	38073	1
[	As-1	75	19.191	ug/L	0.216	1	12623	49860	1
[	Se	82	0.052	ug/L	0.068	131	-10	2	586
[	Se	78	0.775	ug/L	0.066	8	12864	12670	0
[	Mo	98	0.478	ug/L	0.002	0	28	2621	0
	Y	89		ug/L			406158	548155	0
	Kr	83		ug/L			794	1159	5
[>	In	115		ug/L			1093664	1071369	1
[	Ag	107	0.245	ug/L	0.007	2	42	3698	2
[	Cd	111	6.584	ug/L	0.077	1	115	34647	0
[	Cd	114	6.668	ug/L	0.058	0	65	86133	0
[	Sb	121	0.219	ug/L	0.004	1	182	3543	0
[	Sb	123	0.222	ug/L	0.002	1	151	2743	1
[	Ba	135	298.080	ug/L	1.542	0	15	1406567	0
[	Ba	137	310.692	ug/L	2.401	0	26	2545402	0
[>	Tb	159		ug/L			1253683	1234511	1
[	Tl	205	0.306	ug/L	0.001	0	128	10664	1
[	Pb	208	277.549	ug/L	2.329	0	347	12483988	0
[	Bi	209		ug/L			2594753	2445710	0
[	Th	232	6.385	ug/L	0.019	0	1408	285228	1
[	U	238	0.632	ug/L	0.004	0	31	30161	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:04:29
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	929353	0
[	Be	9	0.492	ug/L	0.008	1	23	1642	1
	C	13		ug/L			82469	119076	1
	Cl	37		ug/L			4833777	4851187	3
[>	Sc	45		ug/L			1144296	1282088	2
[	V	51	28.252	ug/L	0.258	0	9450	682085	1
[	V-1	51	28.128	ug/L	0.490	1	48	670025	1
[	Cr	52	28.347	ug/L	0.478	1	27897	593871	1
[	Cr	53	27.930	ug/L	1.208	4	145	63250	1
[	Mn	55	834.379	ug/L	34.177	4	487	23016792	1
[	Co	59	10.294	ug/L	0.359	3	76	208941	1
[>	Ge	72		ug/L			608948	599633	1
[	Ni	60	23.815	ug/L	0.886	3	28	92235	2
[	Ni	62	24.585	ug/L	0.338	1	64	13680	2
[	Cu	63	26.094	ug/L	0.421	1	101	229931	0
[	Cu	65	26.434	ug/L	0.799	3	39	102592	1
[	Zn	66	146.313	ug/L	4.002	2	991	331845	2
[	Zn	67	152.386	ug/L	3.946	2	141	57868	2
[	Zn	68	156.126	ug/L	2.565	1	706	250810	0
[	As	75	11.023	ug/L	0.209	1	318	23394	0
[	As-1	75	11.141	ug/L	0.309	2	12623	35173	0
[	Se	82	0.007	ug/L	0.045	596	-10	-8	134
[	Se	78	-0.049	ug/L	0.367	750	12864	12638	1
[	Mo	98	0.433	ug/L	0.028	6	28	2463	6
	Y	89		ug/L			406158	556540	2
	Kr	83		ug/L			794	1164	4
[>	In	115		ug/L			1093664	1063757	1
[	Ag	107	0.159	ug/L	0.006	3	42	2391	2
[	Cd	111	2.123	ug/L	0.058	2	115	11165	1
[	Cd	114	2.067	ug/L	0.010	0	65	26551	0
[	Sb	121	0.100	ug/L	0.003	3	182	1705	1
[	Sb	123	0.103	ug/L	0.002	2	151	1340	2
[	Ba	135	283.722	ug/L	3.010	1	15	1329329	1
[	Ba	137	290.932	ug/L	2.306	0	26	2366721	1
[>	Tb	159		ug/L			1253683	1247741	0
[	Tl	205	0.154	ug/L	0.002	1	128	5481	1
[	Pb	208	103.866	ug/L	0.366	0	347	4722458	0
[	Bi	209		ug/L			2594753	2451903	0
[	Th	232	6.324	ug/L	0.070	1	1408	285581	1
[	U	238	0.614	ug/L	0.010	1	31	29630	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:09:41
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	914812	1
	Be	9	0.591	ug/L	0.026	4	23	1938	2
	C	13		ug/L			82469	96879	1
	Cl	37		ug/L			4833777	4769947	4
>	Sc	45		ug/L			1144296	1273891	1
	V	51	32.161	ug/L	0.539	1	9450	770090	0
	V-1	51	32.237	ug/L	0.456	1	48	763162	1
	Cr	52	26.787	ug/L	0.778	2	27897	559368	1
	Cr	53	27.084	ug/L	0.470	1	145	60993	1
	Mn	55	491.279	ug/L	1.677	0	487	13475109	0
	Co	59	9.015	ug/L	0.092	1	76	181940	1
>	Ge	72		ug/L			608948	588382	1
	Ni	60	22.468	ug/L	0.456	2	28	85403	0
	Ni	62	24.610	ug/L	0.805	3	64	13436	3
	Cu	63	23.177	ug/L	0.115	0	101	200419	0
	Cu	65	23.179	ug/L	0.077	0	39	88303	1
	Zn	66	57.445	ug/L	1.888	3	991	128420	2
	Zn	67	68.514	ug/L	1.023	1	141	25610	2
	Zn	68	64.109	ug/L	0.802	1	706	101483	2
	As	75	5.555	ug/L	0.064	1	318	11722	0
	As-1	75	5.576	ug/L	0.193	3	12623	23366	0
	Se	82	-0.214	ug/L	0.015	7	-10	-62	6
	Se	78	0.147	ug/L	0.432	293	12864	12512	0
	Mo	98	0.340	ug/L	0.009	2	28	1900	2
	Y	89		ug/L			406158	622722	0
	Kr	83		ug/L			794	1347	2
>	In	115		ug/L			1093664	1053749	1
	Ag	107	~0.120	ug/L	0.011	8	42	1793	7
	Cd	111	0.354	ug/L	0.030	8	115	1937	9
	Cd	114	0.152	ug/L	0.001	0	65	1988	1
	Sb	121	0.014	ug/L	0.001	5	182	389	3
	Sb	123	0.013	ug/L	0.001	5	151	290	3
	Ba	135	188.063	ug/L	1.866	0	15	872759	0
	Ba	137	187.058	ug/L	3.882	2	26	1507068	0
>	Tb	159		ug/L			1253683	1234478	0
	Tl	205	0.127	ug/L	0.001	0	128	4498	1
	Pb	208	13.965	ug/L	0.062	0	347	628496	0
	Bi	209		ug/L			2594753	2408955	0
	Th	232	6.801	ug/L	0.055	0	1408	303713	0
	U	238	1.034	ug/L	0.022	2	31	49365	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:13:48
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\111912.cal

Ay

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	895666	0
[	Be	9	0.408	ug/L	0.017	4	23	1316	4
	C	13		ug/L			82469	92965	1
	Cl	37		ug/L			4833777	4747541	1
[>	Sc	45		ug/L			1144296	1228702	1
|	V	51	27.936	ug/L	0.607	2	9450	646532	1
|	V-1	51	27.798	ug/L	0.439	1	48	634722	0
|	Cr	52	25.263	ug/L	0.882	3	27897	510539	2
|	Cr	53	24.817	ug/L	0.394	1	145	53914	0
|	Mn	55	337.329	ug/L	4.892	1	487	8924494	1
[	Co	59	7.291	ug/L	0.167	2	76	141933	1
[>	Ge	72		ug/L			608948	582061	0
|	Ni	60	18.452	ug/L	0.328	1	28	69399	1
|	Ni	62	19.711	ug/L	0.680	3	64	10658	3
|	Cu	63	16.074	ug/L	0.109	0	101	137542	0
|	Cu	65	16.355	ug/L	0.300	1	39	61646	1
|	Zn	66	39.834	ug/L	1.214	3	991	88398	2
|	Zn	67	47.820	ug/L	0.840	1	141	17722	1
|	Zn	68	43.647	ug/L	0.726	1	706	68560	1
|	As	75	4.597	ug/L	0.068	1	318	9649	1
|	As-1	75	4.753	ug/L	0.074	1	12623	21487	0
|	Se	82	0.045	ug/L	0.032	71	-10	1	730
|	Se	78	0.724	ug/L	0.031	4	12864	12704	0
[	Mo	98	0.424	ug/L	0.018	4	28	2341	4
	Y	89		ug/L			406158	553782	0
	Kr	83		ug/L			794	1143	1
[>	In	115		ug/L			1093664	1054432	0
|	Ag	107	0.072	ug/L	0.010	13	42	1093	12
|	Cd	111	0.240	ug/L	0.038	15	115	1351	14
|	Cd	114	0.105	ug/L	0.005	5	65	1401	5
|	Sb	121	0.017	ug/L	0.001	7	182	426	4
|	Sb	123	0.015	ug/L	0.002	11	151	319	6
|	Ba	135	136.035	ug/L	1.442	1	15	631737	0
[	Ba	137	134.971	ug/L	2.049	1	26	1088310	1
[>	Tb	159		ug/L			1253683	1233378	0
|	Tl	205	0.104	ug/L	0.001	0	128	3705	1
|	Pb	208	9.245	ug/L	0.157	1	347	415790	1
|	Bi	209		ug/L			2594753	2430194	0
|	Th	232	5.625	ug/L	0.031	0	1408	251207	0
[	U	238	0.814	ug/L	0.005	0	31	38828	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 17:17:57
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	873440	0
	Be	9	50.537	ug/L	0.276	0	23	156349	1
	C	13		ug/L			82469	84949	1
	Cl	37		ug/L			4833777	4829379	2
>	Sc	45		ug/L			1144296	1123203	1
	V	51	50.632	ug/L	0.404	0	9450	1063661	1
	V-1	51	50.220	ug/L	0.281	0	48	1048220	1
	Cr	52	51.526	ug/L	0.877	1	27897	923409	1
	Cr	53	50.128	ug/L	0.482	0	145	99407	1
	Mn	55	49.269	ug/L	0.351	0	487	1191892	1
	Co	59	49.552	ug/L	0.379	0	76	881360	1
>	Ge	72		ug/L			608948	581048	0
	Ni	60	50.241	ug/L	0.995	1	28	188562	1
	Ni	62	49.550	ug/L	0.237	0	64	26655	0
	Cu	63	49.774	ug/L	0.777	1	101	424934	1
	Cu	65	50.821	ug/L	0.406	0	39	191148	1
	Zn	66	49.917	ug/L	0.217	0	991	110346	0
	Zn	67	50.103	ug/L	1.631	3	141	18527	2
	Zn	68	50.458	ug/L	1.167	2	706	79004	1
	As	75	50.156	ug/L	0.561	1	318	102085	0
	As-1	75	50.151	ug/L	0.635	1	12623	111272	0
	Se	82	50.530	ug/L	0.721	1	-10	12165	0
	Se	78	50.752	ug/L	1.217	2	12864	40780	0
	Mo	98	49.787	ug/L	0.703	1	28	271001	0
	Y	89		ug/L			406158	385589	1
	Kr	83		ug/L			794	920	4
>	In	115		ug/L			1093664	1040685	1
	Ag	107	49.306	ug/L	1.011	2	42	713956	3
	Cd	111	50.742	ug/L	0.680	1	115	258604	0
	Cd	114	51.126	ug/L	1.171	2	65	640972	0
	Sb	121	50.498	ug/L	0.659	1	182	753908	0
	Sb	123	50.347	ug/L	0.958	1	151	570461	0
	Ba	135	50.310	ug/L	0.225	0	15	230612	1
	Ba	137	49.697	ug/L	0.670	1	26	395481	0
>	Tb	159		ug/L			1253683	1198210	1
	Tl	205	48.899	ug/L	0.403	0	128	1634961	0
	Pb	208	49.751	ug/L	0.455	0	347	2172262	0
	Bi	209		ug/L			2594753	2413503	0
	Th	232	52.696	ug/L	1.090	2	1408	2274910	1
	U	238	53.386	ug/L	0.745	1	31	2471682	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 17:24:50
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	864178	1
	Be	9	0.000	ug/L	0.002	2083	23	22	21
	C	13		ug/L			82469	81696	1
	Cl	37		ug/L			4833777	4785776	1
>	Sc	45		ug/L			1144296	1092652	1
	V	51	0.007	ug/L	0.001	20	9450	9164	1
	V-1	51	0.003	ug/L	0.003	120	48	103	66
	Cr	52	0.022	ug/L	0.014	62	27897	27011	2
	Cr	53	0.008	ug/L	0.003	30	145	154	1
	Mn	55	0.015	ug/L	0.016	105	487	817	44
	Co	59	0.002	ug/L	0.003	125	76	112	43
>	Ge	72		ug/L			608948	568261	0
	Ni	60	0.001	ug/L	0.002	246	28	29	24
	Ni	62	-0.016	ug/L	0.024	150	64	51	24
	Cu	63	0.007	ug/L	0.002	36	101	150	13
	Cu	65	0.004	ug/L	0.002	42	39	52	13
	Zn	66	-0.266	ug/L	0.012	4	991	354	7
	Zn	67	-0.214	ug/L	0.013	6	141	55	9
	Zn	68	-0.250	ug/L	0.008	3	706	279	5
	As	75	0.058	ug/L	0.010	16	318	412	5
	As-1	75	0.187	ug/L	0.026	14	12623	12141	0
	Se	82	0.052	ug/L	0.011	20	-10	2	89
	Se	78	0.648	ug/L	0.120	18	12864	12361	0
	Mo	98	0.004	ug/L	0.001	29	28	48	14
	Y	89		ug/L			406158	365998	3
	Kr	83		ug/L			794	840	2
>	In	115		ug/L			1093664	1026708	1
	Ag	107	0.001	ug/L	0.002	194	42	57	59
	Cd	111	-0.002	ug/L	0.005	275	115	99	24
	Cd	114	-0.000	ug/L	0.002	732	65	59	34
	Sb	121	0.041	ug/L	0.002	5	182	772	3
	Sb	123	0.039	ug/L	0.002	6	151	582	5
	Ba	135	0.008	ug/L	0.007	92	15	50	67
	Ba	137	0.007	ug/L	0.008	105	26	83	74
>	Tb	159		ug/L			1253683	1140266	1
	Tl	205	0.009	ug/L	0.003	34	128	410	25
	Pb	208	0.001	ug/L	0.003	445	347	348	40
	Bi	209		ug/L			2594753	2430203	0
	Th	232	0.057	ug/L	0.001	2	1408	3630	0
	U	238	0.003	ug/L	0.002	84	31	157	70

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 19, 2012 17:34:26
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	882415	1
	Be	9	0.015	ug/L	0.002	14	23	69	10
	C	13		ug/L			82469	84902	1
	Cl	37		ug/L			4833777	4625317	1
>	Sc	45		ug/L			1144296	1134176	1
	V	51	0.968	ug/L	0.008	0	9450	29730	1
	V-1	51	0.972	ug/L	0.009	0	48	20529	2
	Cr	52	1.044	ug/L	0.039	3	27897	45975	1
	Cr	53	1.055	ug/L	0.034	3	145	2252	1
	Mn	55	44.545	ug/L	0.969	2	487	1088109	1
	Co	59	0.370	ug/L	0.007	1	76	6712	0
>	Ge	72		ug/L			608948	582662	1
	Ni	60	0.989	ug/L	0.034	3	28	3747	2
	Ni	62	0.957	ug/L	0.058	6	64	576	4
	Cu	63	1.078	ug/L	0.015	1	101	9328	2
	Cu	65	1.109	ug/L	0.024	2	39	4218	2
	Zn	66	19.567	ug/L	0.598	3	991	43939	1
	Zn	67	18.265	ug/L	0.486	2	141	6858	1
	Zn	68	19.352	ug/L	0.682	3	706	30794	1
	As	75	0.705	ug/L	0.008	1	318	1740	1
	As-1	75	0.671	ug/L	0.097	14	12623	13408	0
	Se	82	0.037	ug/L	0.082	221	-10	0	2165
	Se	78	-0.037	ug/L	0.375	1015	12864	12286	0
	Mo	98	0.023	ug/L	0.004	17	28	153	12
	Y	89		ug/L			406158	384078	1
	Kr	83		ug/L			794	835	5
>	In	115		ug/L			1093664	1054105	1
	Ag	107	0.017	ug/L	0.001	5	42	287	4
	Cd	111	0.410	ug/L	0.003	0	115	2230	1
	Cd	114	0.412	ug/L	0.010	2	65	5290	1
	Sb	121	0.018	ug/L	0.003	17	182	447	11
	Sb	123	0.016	ug/L	0.002	14	151	334	9
	Ba	135	9.068	ug/L	0.107	1	15	42113	0
	Ba	137	8.867	ug/L	0.086	0	26	71498	0
>	Tb	159		ug/L			1253683	1187092	0
	Tl	205	0.021	ug/L	0.002	11	128	802	10
	Pb	208	20.568	ug/L	0.139	0	347	889921	0
	Bi	209		ug/L			2594753	2513663	2
	Th	232	0.194	ug/L	0.002	0	1408	9626	1
	U	238	0.020	ug/L	0.000	0	31	951	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A SWN
Sample Dil Factor: 100
Comments:

Pb Zn

Sample Date/Time: Monday, November 19, 2012 17:38:33
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	888886	2
	Be	9	0.092	ug/L	0.006	6	23	312	4
	C	13		ug/L			82469	91632	1
	Cl	37		ug/L			4833777	4624975	0
>	Sc	45		ug/L			1144296	1143656	1
	V	51	4.625	ug/L	0.038	0	9450	107529	1
	V-1	51	4.632	ug/L	0.010	0	48	98484	1
	Cr	52	4.956	ug/L	0.160	3	27897	115665	3
	Cr	53	4.975	ug/L	0.068	1	145	10177	1
	Mn	55	218.652	ug/L	0.830	0	487	5384721	1
	Co	59	1.669	ug/L	0.020	1	76	30295	1
>	Ge	72		ug/L			608948	587070✓	0
	Ni	60	4.352	ug/L	0.012	0	28	16530	0
	Ni	62	4.476	ug/L	0.146	3	64	2489	3
	Cu	63	4.923	ug/L	0.168	3	101	42552	3
	Cu	65	5.203	ug/L	0.112	2	39	19806	2
	Zn	66	91.310	ug/L	1.871	2	991	203143	1
	Zn	67	83.843	ug/L	2.037	2	141	31237	2
	Zn	68	91.449	ug/L	0.848	0	706	144136	1
	As	75	3.126	ug/L	0.072	2	318	6716	1
	As-1	75	3.106	ug/L	0.077	2	12623	18380	1
	Se	82	0.111	ug/L	0.062	55	-10	17	87
	Se	78	-0.089	ug/L	0.297	334	12864	12352	1
	Mo	98	0.119	ug/L	0.004	3	28	684	2
	Y	89		ug/L			406158	403768	0
	Kr	83		ug/L			794	866	3
>	In	115		ug/L			1093664	1077497	0
	Ag	107	0.078	ug/L	0.002	2	42	1211	2
	Cd	111	1.928	ug/L	0.043	2	115	10283	1
	Cd	114	1.905	ug/L	0.035	1	65	24795	1
	Sb	121	0.055	ug/L	0.001	2	182	1024	2
	Sb	123	0.052	ug/L	0.002	4	151	763	3
	Ba	135	41.301	ug/L	0.801	1	15	196002	1
	Ba	137	41.123	ug/L	0.729	1	26	338850	1
>	Tb	159		ug/L			1253683	1192401✓	1
	Tl	205	0.088	ug/L	0.003	2	128	3046	3
	Pb	208	99.742	ug/L	0.834	0	347	4333756	1
	Bi	209		ug/L			2594753	2482084	1
	Th	232	0.934	ug/L	0.011	1	1408	41443	0
	U	238	0.093	ug/L	0.002	2	31	4312	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 17:42:41
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	904251	1
	Be	9	0.098	ug/L	0.003	2	23	335	3
	C	13		ug/L			82469	91405	1
	Cl	37		ug/L			4833777	4702344	1
>	Sc	45		ug/L			1144296	1148494	3
	V	51	4.662	ug/L	0.246	5	9450	108660	1
	V-1	51	4.664	ug/L	0.246	5	48	99477	2
	Cr	52	5.366	ug/L	0.149	2	27897	123391	1
	Cr	53	5.365	ug/L	0.124	2	145	11006	1
	Mn	55	220.487	ug/L	5.686	2	487	5450734	2
	Co	59	1.761	ug/L	0.057	3	76	32078	0
>	Ge	72		ug/L			608948	593024 ✓	1
	Ni	60	4.719	ug/L	0.052	1	28	18105	2
	Ni	62	4.864	ug/L	0.140	2	64	2726	2
	Cu	63	4.994	ug/L	0.031	0	101	43599	0
	Cu	65	5.148	ug/L	0.186	3	39	19796	3
	Zn	66	92.932	ug/L	2.645	2	991	208789	1
	Zn	67	84.878	ug/L	2.249	2	141	31934	1
	Zn	68	92.216	ug/L	0.435	0	706	146809	1
	As	75	3.214	ug/L	0.085	2	318	6965	1
	As-1	75	3.200	ug/L	0.185	5	12623	18752	0
	Se	82	0.036	ug/L	0.057	157	-10	0	1430
	Se	78	-0.134	ug/L	0.383	285	12864	12449	0
	Mo	98	0.074	ug/L	0.008	10	28	438	10
	Y	89		ug/L			406158	410016	1
	Kr	83		ug/L			794	893	3
>	In	115		ug/L			1093664	1069260	1
	Ag	107	0.080	ug/L	0.001	1	42	1229	1
	Cd	111	1.918	ug/L	0.007	0	115	10152	1
	Cd	114	1.949	ug/L	0.011	0	65	25173	0
	Sb	121	0.051	ug/L	0.001	2	182	953	1
	Sb	123	0.048	ug/L	0.003	6	151	709	4
	Ba	135	43.118	ug/L	0.533	1	15	203070	1
	Ba	137	42.635	ug/L	0.290	0	26	348629	0
>	Tb	159		ug/L			1253683	1200148 ✓	1
	Tl	205	0.088	ug/L	0.002	2	128	3056	1
	Pb	208	101.608	ug/L	1.430	1	347	4443097	0
	Bi	209		ug/L			2594753	2517858	0
	Th	232	1.427	ug/L	0.014	0	1408	63007	0
	U	238	0.141	ug/L	0.002	1	31	6552	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 17:46:48
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	893153	0
[	Be	9	5.287	ug/L	0.100	1	23	16746	1
	C	13		ug/L			82469	92145	1
	Cl	37		ug/L			4833777	4744096	3
[>	Sc	45		ug/L			1144296	1151678	2
[	V	51	10.274	ug/L	0.219	2	9450	228848	1
[	V-1	51	10.157	ug/L	0.317	3	48	217316	0
[	Cr	52	10.365	ug/L	0.101	0	27897	212936	2
[	Cr	53	9.970	ug/L	0.567	5	145	20374	3
[	Mn	55	223.187	ug/L	6.213	2	487	5533530	2
[	Co	59	6.842	ug/L	0.272	3	76	124769	1
[>	Ge	72		ug/L			608948	582461 ✓	0
[	Ni	60	10.129	ug/L	0.045	0	28	38132	0
[	Ni	62	10.074	ug/L	0.484	4	64	5482	5
[	Cu	63	10.479	ug/L	0.399	3	101	89770	4
[	Cu	65	10.719	ug/L	0.220	2	39	40442	2
[	Zn	66	112.719	ug/L	2.213	1	991	248605	2
[	Zn	67	103.804	ug/L	1.222	1	141	38341	1
[	Zn	68	110.869	ug/L	0.525	0	706	173230	1
[	As	75	9.021	ug/L	0.173	1	318	18656	2
[	As-1	75	8.816	ug/L	0.081	0	12623	29561	1
[	Se	82	16.919	ug/L	0.324	1	-10	4077	2
[	Se	78	17.078	ug/L	0.102	0	12864	21922	0
[	Mo	98	4.531	ug/L	0.118	2	28	24754	3
	Y	89		ug/L			406158	408320	0
	Kr	83		ug/L			794	884	3
[>	In	115		ug/L			1093664	1076177	1
[	Ag	107	4.703	ug/L	0.054	1	42	70451	1
[	Cd	111	7.207	ug/L	0.019	0	115	38085	1
[	Cd	114	7.104	ug/L	0.072	1	65	92165	0
[	Sb	121	0.504	ug/L	0.011	2	182	7963	2
[	Sb	123	0.493	ug/L	0.005	0	151	5928	1
[	Ba	135	47.530	ug/L	0.815	1	15	225264	0
[	Ba	137	47.353	ug/L	0.544	1	26	389678	0
[>	Tb	159		ug/L			1253683	1193700 ✓	0
[	Tl	205	5.251	ug/L	0.035	0	128	175030	0
[	Pb	208	107.404	ug/L	0.311	0	347	4671805	0
[	Bi	209		ug/L			2594753	2483395	1
[	Th	232	5.635	ug/L	0.061	1	1408	243570	1
[	U	238	5.379	ug/L	0.056	1	31	248156	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:50:55
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	891164	2
[	Be	9	0.595	ug/L	0.025	4	23	1898	1
	C	13		ug/L			82469	120897	1
	Cl	37		ug/L			4833777	4814902	3
[>	Sc	45		ug/L			1144296	1294677	1
[	V	51	28.265	ug/L	1.182	4	9450	689004	3
[	V-1	51	28.219	ug/L	0.999	3	48	678796	2
[	Cr	52	52.490	ug/L	1.035	1	27897	1083786	1
[	Cr	53	52.151	ug/L	0.353	0	145	119203	0
[	Mn	55	1082.792	ug/L	17.464	1	487	30181134	1
[	Co	59	8.732	ug/L	0.216	2	76	179079	1
[>	Ge	72		ug/L			608948	578128	1
[	Ni	60	37.551	ug/L	0.988	2	28	140229	1
[	Ni	62	38.758	ug/L	0.845	2	64	20755	1
[	Cu	63	27.118	ug/L	0.716	2	101	230404	2
[	Cu	65	26.815	ug/L	0.797	2	39	100345	1
[	Zn	66	281.959	ug/L	5.045	1	991	615770	1
[	Zn	67	277.794	ug/L	2.238	0	141	101608	0
[	Zn	68	281.640	ug/L	3.885	1	706	435696	0
[	As	75	14.988	ug/L	0.196	1	318	30563	0
[	As-1	75	15.357	ug/L	0.306	1	12623	42215	0
[	Se	82	-0.120	ug/L	0.047	39	-10	-38	29
[	Se	78	0.557	ug/L	0.406	72	12864	12523	0
[	Mo	98	0.405	ug/L	0.017	4	28	2221	2
	Y	89		ug/L			406158	534328	0
	Kr	83		ug/L			794	1275	0
[>	In	115		ug/L			1093664	1084456	1
[	Ag	107	0.261	ug/L	0.012	4	42	3971	3
[	Cd	111	5.432	ug/L	0.098	1	115	28952	0
[	Cd	114	5.369	ug/L	0.101	1	65	70203	0
[	Sb	121	0.118	ug/L	0.005	3	182	2010	2
[	Sb	123	0.116	ug/L	0.006	4	151	1521	3
[	Ba	135	381.151	ug/L	7.782	2	15	1820278	1
[	Ba	137	392.153	ug/L	5.151	1	26	3251799	0
[>	Tb	159		ug/L			1253683	1223013	0
[	Tl	205	0.296	ug/L	0.008	2	128	10210	2
[	Pb	208	307.689	ug/L	4.501	1	347	13710728	0
[	Bi	209		ug/L			2594753	2437993	0
[	Th	232	4.665	ug/L	0.097	2	1408	206827	1
[	U	238	1.134	ug/L	0.005	0	31	53601	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:55:03
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	903119	1
	Be	9	0.438	ug/L	0.008	1	23	1424	3
	C	13		ug/L			82469	116924	0
	Cl	37		ug/L			4833777	4833208	2
>	Sc	45		ug/L			1144296	1214926	1
	V	51	18.285	ug/L	0.687	3	9450	421777	2
	V-1	51	18.349	ug/L	0.634	3	48	414187	1
	Cr	52	13.492	ug/L	0.439	3	27897	283363	1
	Cr	53	13.745	ug/L	0.264	1	145	29592	0
	Mn	55	529.483	ug/L	17.714	3	487	13847089	2
	Co	59	5.801	ug/L	0.136	2	76	111660	1
>	Ge	72		ug/L			608948	588382	2
	Ni	60	14.813	ug/L	0.579	3	28	56294	2
	Ni	62	15.582	ug/L	0.281	1	64	8529	2
	Cu	63	17.469	ug/L	0.470	2	101	151035	0
	Cu	65	18.192	ug/L	0.537	2	39	69286	1
	Zn	66	194.533	ug/L	3.082	1	991	432643	1
	Zn	67	182.149	ug/L	7.877	4	141	67818	2
	Zn	68	192.522	ug/L	4.546	2	706	303267	0
	As	75	12.347	ug/L	0.274	2	318	25674	0
	As-1	75	12.558	ug/L	0.382	3	12623	37349	0
	Se	82	0.027	ug/L	0.102	384	-10	-3	791
	Se	78	0.181	ug/L	0.362	200	12864	12530	1
	Mo	98	0.245	ug/L	0.002	0	28	1379	2
	Y	89		ug/L			406158	521271	2
	Kr	83		ug/L			794	1142	4
>	In	115		ug/L			1093664	1072923	0
	Ag	107	-0.143	ug/L	0.001	0	42	2178	0
	Cd	111	3.644	ug/L	0.039	1	115	19252	0
	Cd	114	3.602	ug/L	0.042	1	65	46623	1
	Sb	121	0.142	ug/L	0.002	1	182	2358	1
	Sb	123	0.140	ug/L	0.005	3	151	1783	3
	Ba	135	163.628	ug/L	0.565	0	15	773257	0
	Ba	137	161.643	ug/L	1.684	1	26	1326283	1
>	Tb	159		ug/L			1253683	1234847	0
	Tl	205	0.171	ug/L	0.002	1	128	6012	0
	Pb	208	130.603	ug/L	1.302	0	347	5876303	0
	Bi	209		ug/L			2594753	2464788	1
	Th	232	4.858	ug/L	0.034	0	1408	217405	0
	U	238	0.793	ug/L	0.010	1	31	37887	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:59:10
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	890785	1
	Be	9	0.508	ug/L	0.010	2	23	1625	0
	C	13		ug/L			82469	125168	1
	Cl	37		ug/L			4833777	4745491	4
>	Sc	45		ug/L			1144296	1261798	0
	V	51	33.387	ug/L	0.406	1	9450	791505	0
	V-1	51	33.391	ug/L	0.430	1	48	783004	0
	Cr	52	22.463	ug/L	0.373	1	27897	469656	1
	Cr	53	22.562	ug/L	0.347	1	145	50352	1
	Mn	55	521.687	ug/L	9.501	1	487	14173866	2
	Co	59	7.582	ug/L	0.135	1	76	151580	1
>	Ge	72		ug/L			608948	576196	1
	Ni	60	16.737	ug/L	0.411	2	28	62306	1
	Ni	62	18.748	ug/L	0.513	2	64	10038	2
	Cu	63	23.964	ug/L	0.746	3	101	202887	1
	Cu	65	24.085	ug/L	0.611	2	39	89833	1
	Zn	66	199.832	ug/L	2.081	1	991	435212	0
	Zn	67	193.043	ug/L	9.013	4	141	70390	3
	Zn	68	200.310	ug/L	2.443	1	706	309040	0
	As	75	9.679	ug/L	0.099	1	318	19778	0
	As-1	75	9.876	ug/L	0.201	2	12623	31319	0
	Se	82	0.052	ug/L	0.062	120	-10	2	530
	Se	78	0.446	ug/L	0.376	84	12864	12419	0
	Mo	98	0.347	ug/L	0.010	2	28	1902	3
	Y	89		ug/L			406158	567714	0
	Kr	83		ug/L			794	1151	3
>	In	115		ug/L			1093664	1056704	1
	Ag	107	^ 0.182	ug/L	0.005	2	42	2709	3
	Cd	111	3.596	ug/L	0.008	0	115	18717	1
	Cd	114	3.559	ug/L	0.051	1	65	45365	0
	Sb	121	0.156	ug/L	0.009	5	182	2544	3
	Sb	123	0.158	ug/L	0.002	1	151	1958	0
	Ba	135	164.115	ug/L	1.201	0	15	763766	1
	Ba	137	165.914	ug/L	0.901	0	26	1340696	1
>	Tb	159		ug/L			1253683	1220669	0
	Tl	205	0.211	ug/L	0.003	1	128	7328	1
	Pb	208	144.496	ug/L	0.922	0	347	6427070	0
	Bi	209		ug/L			2594753	2438716	0
	Th	232	6.301	ug/L	0.013	0	1408	278350	0
	U	238	0.775	ug/L	0.004	0	31	36568	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:03:17
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	896396	2
	Be	9	0.471	ug/L	0.008	1	23	1516	1
	C	13		ug/L			82469	110371	2
	Cl	37		ug/L			4833777	4679567	2
>	Sc	45		ug/L			1144296	1276654	1
	V	51	43.781	ug/L	0.397	0	9450	1046775	1
	V-1	51	43.695	ug/L	0.536	1	48	1036538	0
	Cr	52	28.671	ug/L	0.427	1	27897	597875	1
	Cr	53	28.496	ug/L	0.655	2	145	64286	0
	Mn	55	574.462	ug/L	8.930	1	487	15788143	0
	Co	59	9.526	ug/L	0.242	2	76	192628	2
>	Ge	72		ug/L			608948	583525	1
	Ni	60	17.697	ug/L	0.118	0	28	66733	2
	Ni	62	20.036	ug/L	0.355	1	64	10858	0
	Cu	63	36.603	ug/L	0.705	1	101	313793	0
	Cu	65	38.071	ug/L	1.889	4	39	143730	3
	Zn	66	359.327	ug/L	6.481	1	991	791686	0
	Zn	67	336.675	ug/L	9.111	2	141	124239	1
	Zn	68	358.782	ug/L	12.794	3	706	559899	2
	As	75	19.905	ug/L	0.282	1	318	40866	0
	As-1	75	20.361	ug/L	0.420	2	12623	52547	0
	Se	82	0.085	ug/L	0.013	14	-10	10	26
	Se	78	0.502	ug/L	0.545	108	12864	12607	0
	Mo	98	0.275	ug/L	0.012	4	28	1531	2
	Y	89		ug/L			406158	555848	1
	Kr	83		ug/L			794	1186	2
>	In	115		ug/L			1093664	1103177	1
	Ag	107	0.220	ug/L	0.012	5	42	3412	5
	Cd	111	8.906	ug/L	0.210	2	115	48205	0
	Cd	114	8.877	ug/L	0.281	3	65	118019	1
	Sb	121	0.585	ug/L	0.010	1	182	9448	1
	Sb	123	0.583	ug/L	0.013	2	151	7150	1
	Ba	135	121.210	ug/L	1.861	1	15	588861	0
	Ba	137	120.341	ug/L	1.811	1	26	1015083	0
>	Tb	159		ug/L			1253683	1232452	1
	Tl	205	0.386	ug/L	0.005	1	128	13407	0
	Pb	208	384.557	ug/L	4.574	1	347	17267873	0
	Bi	209		ug/L			2594753	2451808	0
	Th	232	6.017	ug/L	0.053	0	1408	268430	0
	U	238	0.630	ug/L	0.010	1	31	30035	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:08:29
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	889612	0
	Be	9	0.520	ug/L	0.019	3	23	1659	3
	C	13		ug/L			82469	139592	0
	Cl	37		ug/L			4833777	4757676	3
>	Sc	45		ug/L			1144296	1236858	1
	V	51	27.941	ug/L	0.444	1	9450	650883	0
	V-1	51	27.978	ug/L	0.592	2	48	642991	0
	Cr	52	28.130	ug/L	0.362	1	27897	568895	1
	Cr	53	28.256	ug/L	0.712	2	145	61761	1
	Mn	55	785.695	ug/L	16.206	2	487	20926399	3
	Co	59	7.966	ug/L	0.222	2	76	156052	1
>	Ge	72		ug/L			608948	572866	1
	Ni	60	20.277	ug/L	0.331	1	28	75068	3
	Ni	62	21.905	ug/L	0.460	2	64	11649	0
	Cu	63	27.124	ug/L	0.287	1	101	228340	1
	Cu	65	27.876	ug/L	0.206	0	39	103382	0
	Zn	66	340.308	ug/L	5.711	1	991	736176	0
	Zn	67	313.651	ug/L	3.506	1	141	113667	1
	Zn	68	331.745	ug/L	3.299	0	706	508468	1
	As	75	11.838	ug/L	0.306	2	318	23980	1
	As-1	75	12.109	ug/L	0.437	3	12623	35490	0
	Se	82	0.125	ug/L	0.057	45	-10	20	65
	Se	78	0.553	ug/L	0.505	91	12864	12406	0
	Mo	98	0.339	ug/L	0.020	5	28	1843	4
	Y	89		ug/L			406158	560577	1
	Kr	83		ug/L			794	1118	0
>	In	115		ug/L			1093664	1066915	0
	Ag	107	0.175	ug/L	0.002	1	42	2643	1
	Cd	111	5.718	ug/L	0.106	1	115	29974	1
	Cd	114	5.594	ug/L	0.036	0	65	71969	0
	Sb	121	0.359	ug/L	0.003	0	182	5677	0
	Sb	123	0.360	ug/L	0.006	1	151	4327	1
	Ba	135	217.181	ug/L	1.936	0	15	1020532	0
	Ba	137	215.254	ug/L	3.707	1	26	1756099	0
>	Tb	159		ug/L			1253683	1223436	1
	Tl	205	0.277	ug/L	0.008	2	128	9577	1
	Pb	208	234.180	ug/L	3.918	1	347	10437910	0
	Bi	209		ug/L			2594753	2438571	1
	Th	232	5.860	ug/L	0.118	2	1408	259534	0
	U	238	0.815	ug/L	0.018	2	31	38558	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:12:36
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	894730	1
	Be	**9**	**0.622**	ug/L	0.007	1	23	1993	0
	C	**13**		ug/L			82469	116777	2
	Cl	**37**		ug/L			4833777	4787698	2
>	**Sc**	**45**		ug/L			1144296	1218079	1
	V	**51**	**26.732**	ug/L	0.901	3	9450	613531	1
	V-1	**51**	**26.696**	ug/L	0.818	3	48	604094	1
	Cr	**52**	**21.566**	ug/L	0.314	1	27897	436396	0
	Cr	**53**	**21.484**	ug/L	0.054	0	145	46294	1
	Mn	**55**	**828.272**	ug/L	7.593	0	487	21723318	2
	Co	**59**	**9.234**	ug/L	0.275	2	76	178133	1
>	**Ge**	**72**		ug/L			608948	576552	0
	Ni	**60**	**22.065**	ug/L	0.429	1	28	82201	2
	Ni	**62**	**23.173**	ug/L	0.357	1	64	12401	1
	Cu	**63**	**23.828**	ug/L	0.204	0	101	201913	0
	Cu	**65**	**24.412**	ug/L	0.307	1	39	91127	1
	Zn	**66**	**190.455**	ug/L	1.118	0	991	415132	1
	Zn	**67**	**186.306**	ug/L	0.863	0	141	68006	0
	Zn	**68**	**190.185**	ug/L	2.104	1	706	293648	0
	As	**75**	**11.640**	ug/L	0.140	1	318	23739	0
	As-1	**75**	**11.884**	ug/L	0.222	1	12623	35283	0
	Se	**82**	**-0.106**	ug/L	0.093	87	-10	-35	63
	Se	**78**	**0.425**	ug/L	0.298	70	12864	12416	0
	Mo	**98**	**0.426**	ug/L	0.002	0	28	2326	1
	Y	**89**		ug/L			406158	576893	0
	Kr	**83**		ug/L			794	1266	4
>	**In**	**115**		ug/L			1093664	1036269	2
	Ag	**107**	**0.192**	ug/L	0.012	6	42	2805	4
	Cd	**111**	**2.924**	ug/L	0.030	1	115	14942	1
	Cd	**114**	**2.769**	ug/L	0.069	2	65	34624	0
	Sb	**121**	**0.176**	ug/L	0.007	3	182	2794	1
	Sb	**123**	**0.171**	ug/L	0.004	2	151	2075	0
	Ba	**135**	**185.335**	ug/L	2.856	1	15	845746	0
	Ba	**137**	**184.872**	ug/L	5.651	3	26	1464447	1
>	**Tb**	**159**		ug/L			1253683	1217638	0
	Tl	**205**	**0.208**	ug/L	0.000	0	128	7176	0
	Pb	**208**	**109.705**	ug/L	0.259	0	347	4867516	0
	Bi	**209**		ug/L			2594753	2418033	1
	Th	**232**	**7.016**	ug/L	0.031	0	1408	309036	0
	U	**238**	**1.046**	ug/L	0.006	0	31	49252	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 18:16:45
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	853234 ✓	1
	Be	9	51.238	ug/L	0.408	0	23	154842	1
	C	13		ug/L			82469	82292	2
	Cl	37		ug/L			4833777	4601388	3
>	Sc	45		ug/L			1144296	1120549 ✓	2
	V	51	49.705	ug/L	0.698	1	9450	1041805	1
	V-1	51	49.787	ug/L	0.625	1	48	1036609	0
	Cr	52	49.654	ug/L	1.105	2	27897	888726	1
	Cr	53	49.928	ug/L	0.771	1	145	98764	0
	Mn	55	48.469	ug/L	0.749	1	487	1169731	1
	Co	59	48.704	ug/L	0.384	0	76	864306	2
>	Ge	72		ug/L			608948	570005 ✓	0
	Ni	60	49.885	ug/L	0.781	1	28	183679	1
	Ni	62	49.583	ug/L	0.735	1	64	26166	1
	Cu	63	49.560	ug/L	0.372	0	101	415094	1
	Cu	65	50.734	ug/L	1.205	2	39	187209	2
	Zn	66	49.810	ug/L	0.967	1	991	108015	1
	Zn	67	51.186	ug/L	0.498	0	141	18569	1
	Zn	68	50.939	ug/L	1.060	2	706	78239	1
	As	75	49.871	ug/L	0.730	1	318	99581	1
	As-1	75	50.003	ug/L	0.835	1	12623	108874	1
	Se	82	50.032	ug/L	0.804	1	-10	11817	1
	Se	78	50.587	ug/L	1.038	2	12864	39917	1
	Mo	98	48.672	ug/L	1.158	2	28	259897	1
	Y	89		ug/L			406158	380842	0
	Kr	83		ug/L			794	814	6
>	In	115		ug/L			1093664	1024319 ✓	0
	Ag	107	48.921	ug/L	0.831	1	42	697132	1
	Cd	111	50.390	ug/L	0.414	0	115	252794	0
	Cd	114	51.334	ug/L	0.762	1	65	633563	1
	Sb	121	50.918	ug/L	0.270	0	182	748313	1
	Sb	123	50.731	ug/L	0.900	1	151	565813	1
	Ba	135	50.369	ug/L	0.225	0	15	227251	0
	Ba	137	50.191	ug/L	0.700	1	26	393153	0
>	Tb	159		ug/L			1253683	1170124 ✓	0
	Tl	205	50.169	ug/L	0.707	1	128	1638140	1
	Pb	208	50.199	ug/L	0.165	0	347	2140581	1
	Bi	209		ug/L			2594753	2393173	0
	Th	232	53.443	ug/L	0.374	0	1408	2253297	0
	U	238	54.036	ug/L	0.667	1	31	2443190	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 18:23:38
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	855504 ✓	3
	Be	9	-0.002	ug/L	0.001	24	23	14	14
	C	13		ug/L			82469	82602	4
	Cl	37		ug/L			4833777	4612890	1
>	Sc	45		ug/L			1144296	1092333 ✓	2
	V	51	-0.006	ug/L	0.014	237	9450	8894	0
	V-1	51	0.000	ug/L	0.000	35	48	54	7
	Cr	52	-0.017	ug/L	0.044	255	27897	26326	0
	Cr	53	0.005	ug/L	0.005	108	145	148	9
	Mn	55	0.007	ug/L	0.001	19	487	637	5
	Co	59	-0.000	ug/L	0.000	2331	76	72	7
>	Ge	72		ug/L			608948	555423 ✓	0
	Ni	60	0.001	ug/L	0.002	172	28	30	23
	Ni	62	-0.033	ug/L	0.005	16	64	41	6
	Cu	63	0.006	ug/L	0.001	19	101	142	6
	Cu	65	0.006	ug/L	0.002	25	39	59	10
	Zn	66	-0.274	ug/L	0.015	5	991	330	10
	Zn	67	-0.219	ug/L	0.018	8	141	52	12
	Zn	68	-0.246	ug/L	0.012	4	706	279	5
	As	75	0.040	ug/L	0.007	16	318	368	3
	As-1	75	0.240	ug/L	0.078	32	12623	11966	0
	Se	82	0.010	ug/L	0.056	546	-10	-6	189
	Se	78	0.820	ug/L	0.285	34	12864	12174	0
	Mo	98	0.004	ug/L	0.001	32	28	47	14
	Y	89		ug/L			406158	368114	1
	Kr	83		ug/L			794	800	3
>	In	115		ug/L			1093664	1006761 ✓	1
	Ag	107	0.000	ug/L	0.001	158	42	44	18
	Cd	111	-0.004	ug/L	0.002	43	115	85	9
	Cd	114	-0.001	ug/L	0.001	95	65	53	12
	Sb	121	0.041	ug/L	0.002	4	182	754	2
	Sb	123	0.041	ug/L	0.002	4	151	588	2
	Ba	135	0.004	ug/L	0.002	49	15	32	27
	Ba	137	0.005	ug/L	0.000	6	26	61	2
>	Tb	159		ug/L			1253683	1126705 ✓	2
	Tl	205	0.008	ug/L	0.005	59	128	356	38
	Pb	208	0.001	ug/L	0.001	75	347	346	7
	Bi	209		ug/L			2594753	2397956	0
	Th	232	0.078	ug/L	0.010	13	1408	4421	7
	U	238	0.002	ug/L	0.000	5	31	115	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:29:05
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	854661	2
	Be	9	-0.003	ug/L	0.001	34	23	13	18
	C	13		ug/L			82469	85298	3
	Cl	37		ug/L			4833777	4449284	1
>	Sc	45		ug/L			1144296	1098037	1
	V	51	0.003	ug/L	0.004	107	9450	9134	1
	V-1	51	0.001	ug/L	0.001	66	48	75	24
	Cr	52	0.024	ug/L	0.014	57	27897	27180	1
	Cr	53	0.018	ug/L	0.003	16	145	174	2
	Mn	55	0.024	ug/L	0.003	12	487	1023	5
	Co	59	0.002	ug/L	0.001	21	76	115	9
>	Ge	72		ug/L			608948	559204	0
	Ni	60	0.005	ug/L	0.001	18	28	43	6
	Ni	62	-0.030	ug/L	0.012	40	64	43	14
	Cu	63	0.436	ug/L	0.006	1	101	3673	2
	Cu	65	0.457	ug/L	0.014	3	39	1689	2
	Zn	66	0.152	ug/L	0.027	17	991	1230	5
	Zn	67	0.144	ug/L	0.034	23	141	181	7
	Zn	68	0.182	ug/L	0.014	7	706	920	2
	As	75	0.045	ug/L	0.001	3	318	379	1
	As-1	75	0.256	ug/L	0.070	27	12623	12078	0
	Se	82	-0.002	ug/L	0.001	82	-10	-9	3
	Se	78	0.875	ug/L	0.249	28	12864	12286	0
	Mo	98	0.001	ug/L	0.001	161	28	29	18
	Y	89		ug/L			406158	380987	1
	Kr	83		ug/L			794	825	2
>	In	115		ug/L			1093664	1028943	0
	Ag	107	-0.001	ug/L	0.000	35	42	26	17
	Cd	111	-0.005	ug/L	0.001	31	115	85	8
	Cd	114	-0.001	ug/L	0.001	114	65	54	16
	Sb	121	0.006	ug/L	0.002	30	182	263	10
	Sb	123	0.005	ug/L	0.001	21	151	202	6
	Ba	135	0.030	ug/L	0.002	5	15	149	5
	Ba	137	0.026	ug/L	0.003	12	26	232	10
>	Tb	159		ug/L			1253683	1140134	0
	Tl	205	0.004	ug/L	0.002	56	128	251	30
	Pb	208	0.022	ug/L	0.001	5	347	1216	4
	Bi	209		ug/L			2594753	2425352	0
	Th	232	0.028	ug/L	0.003	11	1408	2414	4
	U	238	0.000	ug/L	0.000	46	31	48	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 MB1SPK SWN

Ag

Sample Dil Factor: 20

Comments:

Sample Date/Time: Monday, November 19, 2012 18:33:12

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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	860063	1
	Be	9	24.959	ug/L	0.478	1	23	76032	0
	C	13		ug/L			82469	83898	0
	Cl	37		ug/L			4833777	4538283	2
>	Sc	45		ug/L			1144296	1076985	2
	V	51	25.425	ug/L	0.744	2	9450	516386	0
	V-1	51	25.322	ug/L	1.014	4	48	506545	1
	Cr	52	26.338	ug/L	0.355	1	27897	465409	0
	Cr	53	25.985	ug/L	1.270	4	145	49443	2
	Mn	55	25.754	ug/L	0.195	0	487	597622	1
	Co	59	25.449	ug/L	0.686	2	76	433942	1
>	Ge	72		ug/L			608948	564965	0
	Ni	60	26.306	ug/L	0.181	0	28	96020	1
	Ni	62	25.530	ug/L	0.768	3	64	13380	2
	Cu	63	26.105	ug/L	0.039	0	101	216754	1
	Cu	65	26.438	ug/L	0.513	1	39	96692	0
	Zn	66	82.017	ug/L	0.591	0	991	175692	0
	Zn	67	75.259	ug/L	0.273	0	141	26997	0
	Zn	68	81.421	ug/L	0.832	1	706	123572	1
	As	75	26.647	ug/L	0.605	2	318	52870	1
	As-1	75	25.968	ug/L	0.544	2	12623	61667	1
	Se	82	77.982	ug/L	1.424	1	-10	18261	2
	Se	78	80.313	ug/L	1.219	1	12864	55801	1
	Mo	98	24.013	ug/L	0.109	0	28	127111	0
	Y	89		ug/L			406158	368882	1
	Kr	83		ug/L			794	828	0
>	In	115		ug/L			1093664	1028579	0
	Ag	107	24.837	ug/L	0.191	0	42	355438	1
	Cd	111	24.966	ug/L	0.361	1	115	125838	2
	Cd	114	25.392	ug/L	0.488	1	65	314768	2
	Sb	121	24.876	ug/L	0.362	1	182	367162	0
	Sb	123	25.090	ug/L	0.366	1	151	281070	0
	Ba	135	25.427	ug/L	0.169	0	15	115205	1
	Ba	137	25.287	ug/L	0.225	0	26	198928	1
>	Tb	159		ug/L			1253683	1154855	1
	Tl	205	25.832	ug/L	0.063	0	128	832548	1
	Pb	208	26.076	ug/L	0.316	1	347	1097466	0
	Bi	209		ug/L			2594753	2450212	0
	Th	232	25.472	ug/L	0.184	0	1408	1060616	0
	U	238	25.500	ug/L	0.138	0	31	1138019	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 18:37:20
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\111912.cal

Ag, Be
11.20.12 MJT

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	885556	2
[	Be	9	~0.097	ug/L	0.006	5	23	326	4
	C	13		ug/L			82469	88708	3
	Cl	37		ug/L			4833777	4585145	0
[>	Sc	45		ug/L			1144296	1136754	3
[	V	51	4.570	ug/L	0.178	3	9450	105631	1
[	V-1	51	4.584	ug/L	0.134	2	48	96820	1
[	Cr	52	4.991	ug/L	0.258	5	27897	115471	0
[	Cr	53	5.034	ug/L	0.095	1	145	10230	1
[	Mn	55	217.310	ug/L	10.471	4	487	5313455	1
[	Co	59	1.687	ug/L	0.066	3	76	30412	1
[>	Ge	72		ug/L			608948	579555	1
[	Ni	60	4.269	ug/L	0.105	2	28	16006	1
[	Ni	62	4.460	ug/L	0.016	0	64	2448	1
[	Cu	63	5.074	ug/L	0.085	1	101	43291	1
[	Cu	65	5.138	ug/L	0.108	2	39	19308	2
[	Zn	66	91.621	ug/L	2.552	2	991	201254	3
[	Zn	67	85.586	ug/L	1.417	1	141	31474	1
[	Zn	68	91.844	ug/L	1.582	1	706	142899	2
[	As	75	3.126	ug/L	0.061	1	318	6629	0
[	As-1	75	3.156	ug/L	0.141	4	12623	18240	0
[	Se	82	0.086	ug/L	0.041	47	-10	11	88
[	Se	78	0.032	ug/L	0.333	1055	12864	12259	0
[	Mo	98	0.124	ug/L	0.007	5	28	702	7
	Y	89		ug/L			406158	397868	4
	Kr	83		ug/L			794	836	1
[>	In	115		ug/L			1093664	1054896	0
[	Ag	107	~0.077	ug/L	0.002	2	42	1173	2
[	Cd	111	1.958	ug/L	0.037	1	115	10220	1
[	Cd	114	1.922	ug/L	0.019	0	65	24495	1
[	Sb	121	0.076	ug/L	0.001	1	182	1320	1
[	Sb	123	0.075	ug/L	0.001	1	151	1004	0
[	Ba	135	42.146	ug/L	0.121	0	15	195833	1
[	Ba	137	41.720	ug/L	0.189	0	26	336575	0
[>	Tb	159		ug/L			1253683	1166938	0
[	Tl	205	0.090	ug/L	0.002	1	128	3034	1
[	Pb	208	101.432	ug/L	1.083	1	347	4312973	0
[	Bi	209		ug/L			2594753	2446175	0
[	Th	232	1.180	ug/L	0.030	2	1408	50889	3
[	U	238	0.101	ug/L	0.002	1	31	4590	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:41:27
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\111912.cal

Ag, Be
11.20.12 MTT

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	894740	0
[	Be	9	0.476	ug/L	0.007	1	23	1530	1
	C	13		ug/L			82469	120322	1
	Cl	37		ug/L			4833777	4792510	1
[>	Sc	45		ug/L			1144296	1199726	2
[	V	51	22.180	ug/L	0.387	1	9450	503141	1
[	V-1	51	22.191	ug/L	0.369	1	48	494658	1
[	Cr	52	23.941	ug/L	0.605	2	27897	473833	0
[	Cr	53	23.967	ug/L	0.546	2	145	50830	0
[	Mn	55	1055.304	ug/L	22.318	2	487	27250147	0
[	Co	59	7.851	ug/L	0.166	2	76	149190	1
[>	Ge	72		ug/L			608948	570079	2
[	Ni	60	22.130	ug/L	0.651	2	28	81478	1
[	Ni	62	23.035	ug/L	0.389	1	64	12186	1
[	Cu	63	25.495	ug/L	0.746	2	101	213502	1
[	Cu	65	25.778	ug/L	1.125	4	39	95072	1
[	Zn	66	460.683	ug/L	16.551	3	991	990927	1
[	Zn	67	420.949	ug/L	11.290	2	141	151738	2
[	Zn	68	449.883	ug/L	6.836	1	706	685788	1
[	As	75	15.688	ug/L	0.465	2	318	31517	0
[	As-1	75	16.088	ug/L	0.639	3	12623	43029	0
[	Se	82	0.268	ug/L	0.034	12	-10	53	16
[	Se	78	0.696	ug/L	0.589	84	12864	12421	0
[	Mo	98	0.622	ug/L	0.018	2	28	3345	0
	Y	89		ug/L			406158	492520	2
	Kr	83		ug/L			794	1027	0
[>	In	115		ug/L			1093664	1114123	1
[	Ag	107	0.370	ug/L	0.005	1	42	5772	2
[	Cd	111	8.934	ug/L	0.208	2	115	48835	0
[	Cd	114	8.902	ug/L	0.114	1	65	119535	0
[	Sb	121	0.285	ug/L	0.005	1	182	4746	0
[	Sb	123	0.288	ug/L	0.013	4	151	3650	2
[	Ba	135	202.851	ug/L	3.318	1	15	995204	0
[	Ba	137	203.975	ug/L	5.331	2	26	1737274	0
[>	Tb	159		ug/L			1253683	1200135	0
[	Tl	205	0.426	ug/L	0.002	0	128	14387	0
[	Pb	208	500.668	ug/L	3.652	0	347	21893568	0
[	Bi	209		ug/L			2594753	2449014	0
[	Th	232	4.782	ug/L	0.024	0	1408	208036	0
[	U	238	0.470	ug/L	0.006	1	31	21808	1

VR34 : 00574

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:45:34
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\111912.cal

Ag, Be
11.20.12 MJT

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	879972	1
[	Be	9	0.478	ug/L	0.020	4	23	1511	3
	C	13		ug/L			82469	118508	0
	Cl	37		ug/L			4833777	4700436	1
[>	Sc	45		ug/L			1144296	1211946	1
[	V	51	21.551	ug/L	0.302	1	9450	494344	2
[	V-1	51	21.582	ug/L	0.320	1	48	486188	2
[	Cr	52	24.534	ug/L	0.287	1	27897	489973	1
[	Cr	53	24.617	ug/L	0.120	0	145	52758	1
[	Mn	55	998.714	ug/L	11.027	1	487	26059981	1
[	Co	59	8.048	ug/L	0.175	2	76	154504	1
[>	Ge	72		ug/L			608948	568817	0
[	Ni	60	23.336	ug/L	0.620	2	28	85758	2
[	Ni	62	24.540	ug/L	0.409	1	64	12954	2
[	Cu	63	24.925	ug/L	0.377	1	101	208364	1
[	Cu	65	25.317	ug/L	0.145	0	39	93238	1
[	Zn	66	452.008	ug/L	14.340	3	991	970666	2
[	Zn	67	416.632	ug/L	11.568	2	141	149859	2
[	Zn	68	446.581	ug/L	7.025	1	706	679431	1
[	As	75	15.770	ug/L	0.202	1	318	31629	1
[	As-1	75	16.190	ug/L	0.151	0	12623	43152	1
[	Se	82	0.182	ug/L	0.014	7	-10	33	10
[	Se	78	0.733	ug/L	0.202	27	12864	12419	0
[	Mo	98	0.378	ug/L	0.018	4	28	2043	5
	Y	89		ug/L			406158	486419	1
	Kr	83		ug/L			794	1076	2
[>	In	115		ug/L			1093664	1115368	2
[	Ag	107	0.331	ug/L	0.017	5	42	5182	4
[	Cd	111	8.851	ug/L	0.328	3	115	48423	1
[	Cd	114	8.715	ug/L	0.266	3	65	117135	1
[	Sb	121	0.252	ug/L	0.014	5	182	4216	3
[	Sb	123	0.249	ug/L	0.014	5	151	3177	3
[	Ba	135	200.141	ug/L	7.254	3	15	982745	1
[	Ba	137	198.143	ug/L	8.693	4	26	1689081	2
[>	Tb	159		ug/L			1253683	1183880	2
[	Tl	205	0.413	ug/L	0.016	3	128	13769	1
[	Pb	208	500.112	ug/L	18.168	3	347	21561021	1
[	Bi	209		ug/L			2594753	2440814	1
[	Th	232	7.193	ug/L	0.279	3	1408	307833	1
[	U	238	0.695	ug/L	0.020	2	31	31787	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:49:42
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\111912.cal

Ag, Be
11.20.12
MJT

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	880701	0
	Be	9	24.352	ug/L	0.522	2	23	75975	2
	C	13		ug/L			82469	116138	0
	Cl	37		ug/L			4833777	4750331	0
>	Sc	45		ug/L			1144296	1201282	0
	V	51	44.752	ug/L	0.368	0	9450	1006720	0
	V-1	51	44.908	ug/L	0.800	1	48	1002589	1
	Cr	52	45.007	ug/L	0.306	0	27897	866515	0
	Cr	53	45.532	ug/L	1.906	4	145	96595	4
	Mn	55	969.179	ug/L	6.839	0	487	25068251	0
	Co	59	30.073	ug/L	0.152	0	76	572139	0
>	Ge	72		ug/L			608948	555518	2
	Ni	60	46.673	ug/L	2.732	5	28	167343	3
	Ni	62	48.933	ug/L	1.205	2	64	25158	0
	Cu	63	48.254	ug/L	2.294	4	101	393586	2
	Cu	65	50.993	ug/L	0.970	1	39	183321	1
	Zn	66	505.875	ug/L	15.996	3	991	1060402	0
	Zn	67	474.667	ug/L	20.037	4	141	166638	1
	Zn	68	507.787	ug/L	20.637	4	706	753910	1
	As	75	42.811	ug/L	1.689	3	318	83304	1
	As-1	75	42.115	ug/L	2.138	5	12623	91124	2
	Se	82	77.582	ug/L	2.233	2	-10	17856	0
	Se	78	78.676	ug/L	3.889	4	12864	53957	1
	Mo	98	22.529	ug/L	0.567	2	28	117220	0
	Y	89		ug/L			406158	488611	1
	Kr	83		ug/L			794	1029	1
>	In	115		ug/L			1093664	1089871	1
	Ag	107	20.249	ug/L	0.693	3	42	306944	1
	Cd	111	30.708	ug/L	0.822	2	115	163929	1
	Cd	114	31.336	ug/L	0.645	2	65	411459	0
	Sb	121	2.238	ug/L	0.076	3	182	35163	2
	Sb	123	2.239	ug/L	0.070	3	151	26712	1
	Ba	135	214.044	ug/L	5.161	2	15	1027288	1
	Ba	137	215.198	ug/L	5.319	2	26	1793225	1
>	Tb	159		ug/L			1253683	1194630	0
	Tl	205	23.966	ug/L	0.563	2	128	798930	1
	Pb	208	497.438	ug/L	6.620	1	347	21651329	0
	Bi	209		ug/L			2594753	2419231	0
	Th	232	26.391	ug/L	0.509	1	1408	1136620	1
	U	238	24.718	ug/L	0.620	2	31	1140987	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:53:49

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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	899018	1
	Be	9	0.481	ug/L	0.008	1	23	1553	2
	C	13		ug/L			82469	117088	0
	Cl	37		ug/L			4833777	4818104	1
>	Sc	45		ug/L			1144296	1211667	1
	V	51	25.393	ug/L	0.722	2	9450	580396	2
	V-1	51	25.452	ug/L	0.835	3	48	573047	2
	Cr	52	30.054	ug/L	0.029	0	27897	593428	1
	Cr	53	30.218	ug/L	0.359	1	145	64707	1
	Mn	55	764.053	ug/L	14.390	1	487	19931157	1
	Co	59	8.301	ug/L	0.090	1	76	159330	0
>	Ge	72		ug/L			608948	576755	1
	Ni	60	24.327	ug/L	0.647	2	28	90661	3
	Ni	62	25.711	ug/L	0.332	1	64	13759	2
	Cu	63	23.279	ug/L	0.320	1	101	197306	0
	Cu	65	24.193	ug/L	0.632	2	39	90330	1
	Zn	66	375.578	ug/L	5.566	1	991	817961	1
	Zn	67	349.887	ug/L	1.561	0	141	127651	1
	Zn	68	377.038	ug/L	13.709	3	706	581541	2
	As	75	17.435	ug/L	0.176	1	318	35420	0
	As-1	75	17.811	ug/L	0.225	1	12623	46935	0
	Se	82	0.109	ug/L	0.058	52	-10	16	84
	Se	78	0.409	ug/L	0.134	32	12864	12412	1
	Mo	98	0.365	ug/L	0.001	0	28	1998	1
	Y	89		ug/L			406158	485878	1
	Kr	83		ug/L			794	1132	1
>	In	115		ug/L			1093664	1096143	2
	Ag	107	0.308	ug/L	0.006	1	42	4731	1
	Cd	111	7.435	ug/L	0.131	1	115	40007	1
	Cd	114	7.503	ug/L	0.088	1	65	99140	1
	Sb	121	0.233	ug/L	0.005	2	182	3841	1
	Sb	123	0.233	ug/L	0.007	2	151	2928	1
	Ba	135	186.291	ug/L	5.047	2	15	899035	0
	Ba	137	185.493	ug/L	2.793	1	26	1554662	1
>	Tb	159		ug/L			1253683	1201329	0
	Tl	205	0.370	ug/L	0.005	1	128	12510	1
	Pb	208	394.947	ug/L	2.573	0	347	17288029	0
	Bi	209		ug/L			2594753	2406518	0
	Th	232	5.529	ug/L	0.060	1	1408	240548	1
	U	238	0.513	ug/L	0.006	1	31	23841	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:57:56
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\111912.cal

Ag

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			923208	894112	1
Be	9	0.569	ug/L	0.033	5	23	1824	4
C	13		ug/L			82469	117418	1
Cl	37		ug/L			4833777	4790559	3
Sc	45		ug/L			1144296	1223359	1
V	51	22.942	ug/L	0.651	2	9450	530415	2
V-1	51	22.832	ug/L	0.699	3	48	519020	2
Cr	52	22.854	ug/L	0.467	2	27897	462687	0
Cr	53	22.485	ug/L	0.730	3	145	48639	1
Mn	55	1051.851	ug/L	17.716	1	487	27701960	0
Co	59	7.516	ug/L	0.154	2	76	145653	0
Ge	72		ug/L			608948	578470	2
Ni	60	24.865	ug/L	0.214	0	28	92929	2
Ni	62	26.074	ug/L	0.771	2	64	13989	2
Cu	63	31.278	ug/L	0.643	2	101	265829	1
Cu	65	31.893	ug/L	1.222	3	39	119374	1
Zn	66	504.989	ug/L	9.614	1	991	1102510	0
Zn	67	468.640	ug/L	15.192	3	141	171391	2
Zn	68	504.709	ug/L	14.990	2	706	780472	1
As	75	17.149	ug/L	0.349	2	318	34940	0
As-1	75	17.523	ug/L	0.493	2	12623	46496	0
Se	82	0.239	ug/L	0.052	21	-10	47	28
Se	78	0.611	ug/L	0.510	83	12864	12558	0
Mo	98	0.495	ug/L	0.016	3	28	2706	2
Y	89		ug/L			406158	556721	2
Kr	83		ug/L			794	1164	3
In	115		ug/L			1093664	1083169	0
Ag	107	0.299	ug/L	0.004	1	42	4551	1
Cd	111	8.766	ug/L	0.053	0	115	46600	0
Cd	114	8.745	ug/L	0.153	1	65	114190	1
Sb	121	0.248	ug/L	0.004	1	182	4040	1
Sb	123	0.247	ug/L	0.007	2	151	3065	2
Ba	135	287.643	ug/L	3.502	1	15	1372283	1
Ba	137	295.441	ug/L	3.170	1	26	2447243	1
Tb	159		ug/L			1253683	1195420	0
Tl	205	0.386	ug/L	0.002	0	128	12997	0
Pb	208	316.731	ug/L	2.674	0	347	13796241	1
Bi	209		ug/L			2594753	2415244	1
Th	232	4.970	ug/L	0.033	0	1408	215313	1
U	238	0.722	ug/L	0.009	1	31	33360	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 19:03:08
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	861791	0
	Be	9	0.068	ug/L	0.011	15	23	229	14
	C	13		ug/L			82469	93203	1
	Cl	37		ug/L			4833777	4452658	0
>	Sc	45		ug/L			1144296	1121040	2
	V	51	3.871	ug/L	0.100	2	9450	89699	0
	V-1	51	3.901	ug/L	0.068	1	48	81290	0
	Cr	52	2.958	ug/L	0.155	5	27897	78652	1
	Cr	53	3.064	ug/L	0.036	1	145	6198	2
	Mn	55	108.260	ug/L	2.296	2	487	2613597	3
	Co	59	0.988	ug/L	0.011	1	76	17615	1
>	Ge	72		ug/L			608948	571786	0
	Ni	60	2.118	ug/L	0.078	3	28	7847	3
	Ni	62	2.318	ug/L	0.087	3	64	1284	3
	Cu	63	3.970	ug/L	0.126	3	101	33442	2
	Cu	65	4.059	ug/L	0.109	2	39	15057	2
	Zn	66	69.381	ug/L	1.585	2	991	150562	1
	Zn	67	66.920	ug/L	1.832	2	141	24310	2
	Zn	68	69.471	ug/L	0.709	1	706	106801	0
	As	75	1.674	ug/L	0.005	0	318	3641	0
	As-1	75	1.689	ug/L	0.038	2	12623	15141	0
	Se	82	0.058	ug/L	0.053	90	-10	4	289
	Se	78	0.127	ug/L	0.131	103	12864	12149	0
	Mo	98	0.095	ug/L	0.006	5	28	536	5
	Y	89		ug/L			406158	399863	1
	Kr	83		ug/L			794	858	4
>	In	115		ug/L			1093664	1049199	1
	Ag	107	0.061	ug/L	0.003	4	42	933	4
	Cd	111	1.473	ug/L	0.003	0	115	7674	1
	Cd	114	1.450	ug/L	0.036	2	65	18384	1
	Sb	121	0.081	ug/L	0.002	2	182	1389	0
	Sb	123	0.079	ug/L	0.004	5	151	1049	3
	Ba	135	41.050	ug/L	0.370	0	15	189692	1
	Ba	137	40.676	ug/L	0.600	1	26	326329	0
>	Tb	159		ug/L			1253683	1163731	0
	Tl	205	0.059	ug/L	0.003	5	128	2037	4
	Pb	208	66.738	ug/L	0.481	0	347	2830109	0
	Bi	209		ug/L			2594753	2481302	0
	Th	232	0.792	ug/L	0.013	1	1408	34481	1
	U	238	0.115	ug/L	0.003	2	31	5208	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 F SWN
Sample Dil Factor: 20
Comments:

Be Ag

Sample Date/Time: Monday, November 19, 2012 19:07:15
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	885037	1
	Be	9	0.359	ug/L	0.013	3	23	1148	3
	C	13		ug/L			82469	134321	3
	Cl	37		ug/L			4833777	4659496	2
>	Sc	45		ug/L			1144296	1182025	1
	V	51	19.489	ug/L	0.178	0	9450	436902	1
	V-1	51	19.283	ug/L	0.231	1	48	423601	1
	Cr	52	14.411	ug/L	0.147	1	27897	292598	2
	Cr	53	13.754	ug/L	0.213	1	145	28810	0
	Mn	55	541.434	ug/L	20.228	3	487	13774371	2
	Co	59	5.047	ug/L	0.204	4	76	94528	3
>	Ge	72		ug/L			608948	572526	1
	Ni	60	10.888	ug/L	0.312	2	28	40284	1
	Ni	62	11.812	ug/L	0.202	1	64	6306	0
	Cu	63	20.036	ug/L	0.343	1	101	168595	1
	Cu	65	21.132	ug/L	0.348	1	39	78331	0
	Zn	66	359.971	ug/L	9.837	2	991	778166	1
	Zn	67	334.195	ug/L	3.972	1	141	121026	0
	Zn	68	359.762	ug/L	11.384	3	706	550947	2
	As	75	8.526	ug/L	0.211	2	318	17344	1
	As-1	75	8.695	ug/L	0.375	4	12623	28816	1
	Se	82	0.245	ug/L	0.011	4	-10	48	6
	Se	78	0.445	ug/L	0.551	123	12864	12339	1
	Mo	98	0.483	ug/L	0.007	1	28	2619	0
	Y	89		ug/L			406158	508433	0
	Kr	83		ug/L			794	992	1
>	In	115		ug/L			1093664	1086444	0
	Ag	107	0.305	ug/L	0.006	1	42	4656	1
	Cd	111	7.173	ug/L	0.046	0	115	38266	0
	Cd	114	7.231	ug/L	0.103	1	65	94717	1
	Sb	121	0.429	ug/L	0.006	1	182	6866	1
	Sb	123	0.423	ug/L	0.011	2	151	5153	2
	Ba	135	209.210	ug/L	2.853	1	15	1001110	1
	Ba	137	209.573	ug/L	2.773	1	26	1741172	1
>	Tb	159		ug/L			1253683	1203314	0
	Tl	205	0.307	ug/L	0.002	0	128	10427	0
	Pb	208	352.880	ug/L	2.919	0	347	15472333	1
	Bi	209		ug/L			2594753	2449417	0
	Th	232	4.056	ug/L	0.027	0	1408	177131	0
	U	238	0.592	ug/L	0.005	0	31	27545	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 19:11:24
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	858878 ✓	3
	Be	9	50.186	ug/L	1.896	3	23	152557	1
	C	13		ug/L			82469	82191	1
	Cl	37		ug/L			4833777	4621431	1
>	Sc	45		ug/L			1144296	1089754 ✓	1
	V	51	50.530	ug/L	0.591	1	9450	1029943	1
	V-1	51	50.585	ug/L	0.427	0	48	1024455	1
	Cr	52	50.293	ug/L	1.332	2	27897	874999	1
	Cr	53	50.480	ug/L	0.488	0	145	97119	0
	Mn	55	49.081	ug/L	1.171	2	487	1151770	0
	Co	59	50.166	ug/L	1.328	2	76	865519	1
>	Ge	72		ug/L			608948	559358 ✓	1
	Ni	60	50.162	ug/L	1.165	2	28	181226	1
	Ni	62	48.497	ug/L	1.831	3	64	25109	2
	Cu	63	50.269	ug/L	0.780	1	101	413162	1
	Cu	65	51.033	ug/L	1.646	3	39	184768	3
	Zn	66	49.826	ug/L	0.477	0	991	106029	0
	Zn	67	49.974	ug/L	1.533	3	141	17791	2
	Zn	68	50.784	ug/L	1.361	2	706	76543	2
	As	75	50.197	ug/L	0.576	1	318	98351	0
	As-1	75	50.524	ug/L	0.811	1	12623	107826	0
	Se	82	49.164	ug/L	0.945	1	-10	11394	1
	Se	78	50.403	ug/L	1.292	2	12864	39068	0
	Mo	98	48.944	ug/L	0.453	0	28	256480	1
	Y	89		ug/L			406158	371445	2
	Kr	83		ug/L			794	870	2
>	In	115		ug/L			1093664	1023704 ✓	0
	Ag	107	47.968	ug/L	0.299	0	42	683140	0
	Cd	111	50.234	ug/L	0.829	1	115	251856	1
	Cd	114	50.829	ug/L	0.445	0	65	626961	0
	Sb	121	49.865	ug/L	0.269	0	182	732375	0
	Sb	123	49.925	ug/L	0.683	1	151	556513	0
	Ba	135	49.859	ug/L	1.057	2	15	224800	1
	Ba	137	48.998	ug/L	0.353	0	26	383604	1
>	Tb	159		ug/L			1253683	1149800 ✓	1
	Tl	205	50.230	ug/L	0.202	0	128	1611713	1
	Pb	208	50.482	ug/L	0.652	1	347	2115088	0
	Bi	209		ug/L			2594753	2354420	0
	Th	232	54.769	ug/L	0.973	1	1408	2268833	0
	U	238	54.357	ug/L	0.473	0	31	2415105	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 19:18:17
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	840869	1
	Be	9	-0.002	ug/L	0.001	65	23	16	21
	C	13		ug/L			82469	82701	0
	Cl	37		ug/L			4833777	4532988	1
>	Sc	45		ug/L			1144296	1055699	1
	V	51	-0.002	ug/L	0.012	584	9450	8679	3
	V-1	51	0.001	ug/L	0.000	57	48	60	14
	Cr	52	-0.011	ug/L	0.043	377	27897	25555	3
	Cr	53	-0.002	ug/L	0.008	508	145	131	12
	Mn	55	0.006	ug/L	0.003	50	487	581	11
	Co	59	0.000	ug/L	0.000	458	76	71	8
>	Ge	72		ug/L			608948	536601	0
	Ni	60	0.005	ug/L	0.002	44	28	41	17
	Ni	62	-0.023	ug/L	0.007	31	64	45	8
	Cu	63	0.003	ug/L	0.001	45	101	113	9
	Cu	65	0.006	ug/L	0.001	17	39	55	5
	Zn	66	-0.265	ug/L	0.013	4	991	336	8
	Zn	67	-0.228	ug/L	0.005	2	141	47	3
	Zn	68	-0.249	ug/L	0.022	8	706	265	11
	As	75	0.045	ug/L	0.006	14	318	365	3
	As-1	75	0.425	ug/L	0.055	12	12623	11899	0
	Se	82	-0.021	ug/L	0.040	194	-10	-13	65
	Se	78	1.464	ug/L	0.203	13	12864	12095	0
	Mo	98	0.004	ug/L	0.002	50	28	47	23
	Y	89		ug/L			406158	352476	0
	Kr	83		ug/L			794	803	3
>	In	115		ug/L			1093664	1000810	0
	Ag	107	0.000	ug/L	0.000	13	42	44	1
	Cd	111	-0.006	ug/L	0.002	31	115	77	11
	Cd	114	-0.001	ug/L	0.000	40	65	47	10
	Sb	121	0.039	ug/L	0.004	9	182	729	7
	Sb	123	0.037	ug/L	0.003	7	151	544	6
	Ba	135	0.003	ug/L	0.001	38	15	26	17
	Ba	137	0.004	ug/L	0.002	58	26	51	30
>	Tb	159		ug/L			1253683	1099647	1
	Tl	205	0.008	ug/L	0.004	54	128	346	36
	Pb	208	0.001	ug/L	0.002	134	347	350	18
	Bi	209		ug/L			2594753	2366694	0
	Th	232	0.082	ug/L	0.003	4	1408	4494	2
	U	238	0.002	ug/L	0.001	26	31	110	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 19:23:17
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	847972	1
	Be	9	0.004	ug/L	0.002	39	23	34	14
	C	13		ug/L			82469	88684	2
	Cl	37		ug/L			4833777	4516560	2
>	Sc	45		ug/L			1144296	1082136	1
	V	51	0.020	ug/L	0.012	62	9450	9330	1
	V-1	51	0.009	ug/L	0.001	7	48	225	6
	Cr	52	0.077	ug/L	0.047	60	27897	27661	1
	Cr	53	0.040	ug/L	0.008	19	145	213	6
	Mn	55	0.115	ug/L	0.003	2	487	3136	3
	Co	59	0.006	ug/L	0.001	11	76	174	6
>	Ge	72		ug/L			608948	551098	1
	Ni	60	0.016	ug/L	0.002	13	28	83	10
	Ni	62	-0.030	ug/L	0.009	28	64	42	9
	Cu	63	0.128	ug/L	0.007	5	101	1129	3
	Cu	65	0.124	ug/L	0.006	4	39	479	3
	Zn	66	0.060	ug/L	0.006	9	991	1022	1
	Zn	67	0.104	ug/L	0.068	65	141	164	15
	Zn	68	0.079	ug/L	0.010	12	706	755	2
	As	75	0.065	ug/L	0.014	20	318	413	4
	As-1	75	0.329	ug/L	0.032	9	12623	12040	1
	Se	82	-0.047	ug/L	0.026	54	-10	-20	30
	Se	78	1.046	ug/L	0.108	10	12864	12199	1
	Mo	98	0.011	ug/L	0.002	19	28	83	15
	Y	89		ug/L			406158	366897	1
	Kr	83		ug/L			794	838	1
>	In	115		ug/L			1093664	1002663	1
	Ag	107	0.002	ug/L	0.001	30	42	72	13
	Cd	111	-0.003	ug/L	0.000	5	115	92	1
	Cd	114	0.001	ug/L	0.000	13	65	76	3
	Sb	121	0.008	ug/L	0.001	14	182	284	4
	Sb	123	0.004	ug/L	0.001	15	151	188	4
	Ba	135	0.034	ug/L	0.004	10	15	164	9
	Ba	137	0.030	ug/L	0.000	1	26	258	2
>	Tb	159		ug/L			1253683	1114353	0
	Tl	205	0.021	ug/L	0.009	44	128	760	37
	Pb	208	0.011	ug/L	0.001	10	347	740	5
	Bi	209		ug/L			2594753	2377856	0
	Th	232	0.051	ug/L	0.007	12	1408	3282	8
	U	238	0.002	ug/L	0.000	12	31	130	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 19:27:25
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\111912.cal

AG

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	862681	1
[	Be	9	24.068	ug/L	0.684	2	23	73531	1
	C	13		ug/L			82469	89920	1
	Cl	37		ug/L			4833777	4710985	4
[>	Sc	45		ug/L			1144296	1106784	2
[	V	51	24.886	ug/L	0.352	1	9450	519720	1
[	V-1	51	24.986	ug/L	0.464	1	48	513809	1
[	Cr	52	25.119	ug/L	0.557	2	27897	457310	0
[	Cr	53	25.457	ug/L	0.900	3	145	49785	1
[	Mn	55	24.635	ug/L	0.485	1	487	587314	1
[	Co	59	24.973	ug/L	0.574	2	76	437660	2
[>	Ge	72		ug/L			608948	576336	2
[	Ni	60	24.912	ug/L	0.794	3	28	92731	2
[	Ni	62	24.739	ug/L	0.389	1	64	13227	0
[	Cu	63	25.078	ug/L	0.687	2	101	212328	0
[	Cu	65	25.154	ug/L	0.516	2	39	93829	0
[	Zn	66	73.651	ug/L	1.466	1	991	161012	1
[	Zn	67	69.146	ug/L	1.896	2	141	25305	1
[	Zn	68	72.590	ug/L	2.643	3	706	112400	2
[	As	75	24.861	ug/L	0.724	2	318	50321	0
[	As-1	75	24.068	ug/L	0.791	3	12623	59158	0
[	Se	82	70.447	ug/L	1.911	2	-10	16820	0
[	Se	78	71.856	ug/L	2.277	3	12864	52192	0
[	Mo	98	24.199	ug/L	0.214	0	28	130696	3
	Y	89		ug/L			406158	367234	2
	Kr	83		ug/L			794	841	0
[>	In	115		ug/L			1093664	1006816	0
[	Ag	107	23.432	ug/L	0.198	0	42	328250	1
[	Cd	111	23.855	ug/L	0.106	0	115	117692	1
[	Cd	114	24.130	ug/L	0.385	1	65	292741	0
[	Sb	121	24.964	ug/L	0.422	1	182	360663	1
[	Sb	123	25.033	ug/L	0.281	1	151	274507	0
[	Ba	135	25.464	ug/L	0.094	0	15	112929	0
[	Ba	137	25.424	ug/L	0.155	0	26	195766	0
[>	Tb	159		ug/L			1253683	1162191	0
[	Tl	205	24.911	ug/L	0.154	0	128	807996	0
[	Pb	208	24.940	ug/L	0.220	0	347	1056412	0
[	Bi	209		ug/L			2594753	2349691	0
[	Th	232	25.350	ug/L	0.333	1	1408	1062231	0
[	U	238	25.218	ug/L	0.228	0	31	1132576	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:31:32
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\111912.cal

Ag, Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	864267	1
[	Be	9	0.338	ug/L	0.016	4	23	1056	4
	C	13		ug/L			82469	112504	0
	Cl	37		ug/L			4833777	4687383	1
[>	Sc	45		ug/L			1144296	1170232	1
[	V	51	20.360	ug/L	0.554	2	9450	451387	2
[	V-1	51	20.156	ug/L	0.516	2	48	438289	1
[	Cr	52	15.485	ug/L	0.578	3	27897	309070	2
[	Cr	53	14.834	ug/L	0.793	5	145	30736	3
[	Mn	55	401.264	ug/L	3.376	0	487	10111452	2
[	Co	59	4.539	ug/L	0.061	1	76	84182	0
[>	Ge	72		ug/L			608948	567828	1
[	Ni	60	11.304	ug/L	0.145	1	28	41481	1
[	Ni	62	12.636	ug/L	0.115	0	64	6687	0
[	Cu	63	22.149	ug/L	0.767	3	101	184795	2
[	Cu	65	23.105	ug/L	0.633	2	39	84922	1
[	Zn	66	466.272	ug/L	17.024	3	991	999279	2
[	Zn	67	439.460	ug/L	9.092	2	141	157781	1
[	Zn	68	464.988	ug/L	2.969	0	706	706190	1
[	As	75	10.012	ug/L	0.091	0	318	20152	1
[	As-1	75	10.208	ug/L	0.119	1	12623	31508	0
[	Se	82	0.322	ug/L	0.074	23	-10	66	25
[	Se	78	0.482	ug/L	0.340	70	12864	12259	0
[	Mo	98	0.271	ug/L	0.008	3	28	1465	1
	Y	89		ug/L			406158	501521	0
	Kr	83		ug/L			794	979	3
[>	In	115		ug/L			1093664	1091065	0
[	Ag	107	0.392	ug/L	0.012	2	42	5991	2
[	Cd	111	9.494	ug/L	0.019	0	115	50829	0
[	Cd	114	9.447	ug/L	0.120	1	65	124248	0
[	Sb	121	0.298	ug/L	0.006	2	182	4842	2
[	Sb	123	0.299	ug/L	0.003	0	151	3704	0
[	Ba	135	118.703	ug/L	0.577	0	15	570436	0
[	Ba	137	118.717	ug/L	0.882	0	26	990525	0
[>	Tb	159		ug/L			1253683	1189913	1
[	Tl	205	0.390	ug/L	0.002	0	128	13065	0
[	Pb	208	392.356	ug/L	4.644	1	347	17009689	0
[	Bi	209		ug/L			2594753	2442789	0
[	Th	232	4.548	ug/L	0.027	0	1408	196228	1
[	U	238	1.278	ug/L	0.031	2	31	58772	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:35:39
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	875789	0
[	Be	9	0.388	ug/L	0.007	1	23	1226	1
	C	13		ug/L			82469	123692	0
	Cl	37		ug/L			4833777	4677475	0
[>	Sc	45		ug/L			1144296	1190543	3
[	V	51	22.179	ug/L	0.644	2	9450	499140	0
[	V-1	51	21.946	ug/L	0.650	2	48	485301	0
[	Cr	52	20.207	ug/L	0.909	4	27897	401235	2
[	Cr	53	19.436	ug/L	0.794	4	145	40913	0
[	Mn	55	510.753	ug/L	11.785	2	487	13086637	0
[	Co	59	5.464	ug/L	0.154	2	76	103031	0
[>	Ge	72		ug/L			608948	571614	0
[	Ni	60	13.010	ug/L	0.110	0	28	48060	1
[	Ni	62	14.339	ug/L	0.138	0	64	7631	0
[	Cu	63	19.990	ug/L	0.402	2	101	167943	1
[	Cu	65	20.584	ug/L	0.380	1	39	76182	1
[	Zn	66	321.771	ug/L	6.483	2	991	694708	2
[	Zn	67	302.091	ug/L	2.219	0	141	109242	0
[	Zn	68	324.399	ug/L	5.934	1	706	496137	1
[	As	75	10.318	ug/L	0.130	1	318	20898	1
[	As-1	75	10.554	ug/L	0.102	0	12623	32392	0
[	Se	82	0.108	ug/L	0.020	18	-10	15	28
[	Se	78	0.418	ug/L	0.074	17	12864	12307	0
[	Mo	98	0.445	ug/L	0.007	1	28	2411	1
	Y	89		ug/L			406158	518944	2
	Kr	83		ug/L			794	1027	2
[>	In	115		ug/L			1093664	1053175	1
[	Ag	107	0.236	ug/L	0.005	2	42	3496	3
[	Cd	111	6.796	ug/L	0.134	1	115	35146	1
[	Cd	114	6.845	ug/L	0.077	1	65	86905	1
[	Sb	121	0.319	ug/L	0.009	2	182	4990	1
[	Sb	123	0.325	ug/L	0.015	4	151	3870	2
[	Ba	135	211.653	ug/L	3.804	1	15	981580	0
[	Ba	137	212.633	ug/L	5.565	2	26	1712008	1
[>	Tb	159		ug/L			1253683	1188621	1
[	Tl	205	0.315	ug/L	0.002	0	128	10554	0
[	Pb	208	255.021	ug/L	3.305	1	347	11043549	0
[	Bi	209		ug/L			2594753	2422789	0
[	Th	232	4.857	ug/L	0.071	1	1408	209214	0
[	U	238	0.694	ug/L	0.006	0	31	31901	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:39:48
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	892770	2
[	Be	9	0.361	ug/L	0.009	2	23	1164	0
	C	13		ug/L			82469	119749	0
	Cl	37		ug/L			4833777	4700764	2
[>	Sc	45		ug/L			1144296	1199840	0
[	V	51	21.677	ug/L	0.149	0	9450	492155	1
[	V-1	51	21.534	ug/L	0.080	0	48	480186	0
[	Cr	52	19.747	ug/L	0.305	1	27897	396143	1
[	Cr	53	19.278	ug/L	0.087	0	145	40936	1
[	Mn	55	2097.227	ug/L	9.170	0	487	54179606	1
[	Co	59	7.773	ug/L	0.095	1	76	147759	0
[>	Ge	72		ug/L			608948	575741	2
[	Ni	60	16.317	ug/L	0.911	5	28	60649	3
[	Ni	62	16.872	ug/L	0.326	1	64	9030	1
[	Cu	63	17.275	ug/L	0.586	3	101	146112	1
[	Cu	65	18.016	ug/L	0.505	2	39	67129	0
[	Zn	66	438.679	ug/L	19.875	4	991	952794	1
[	Zn	67	424.604	ug/L	7.702	1	141	154550	1
[	Zn	68	444.307	ug/L	13.999	3	706	683773	0
[	As	75	14.632	ug/L	0.437	2	318	29707	1
[	As-1	75	14.961	ug/L	0.591	3	12623	41246	1
[	Se	82	0.256	ug/L	0.061	23	-10	51	27
[	Se	78	0.412	ug/L	0.590	143	12864	12386	1
[	Mo	98	1.075	ug/L	0.044	4	28	5820	1
	Y	89		ug/L			406158	476265	1
	Kr	83		ug/L			794	956	4
[>	In	115		ug/L			1093664	1075831	0
[	Ag	107	0.255	ug/L	0.007	2	42	3857	1
[	Cd	111	8.283	ug/L	0.187	2	115	43740	2
[	Cd	114	8.316	ug/L	0.099	1	65	107855	1
[	Sb	121	0.305	ug/L	0.004	1	182	4880	0
[	Sb	123	0.299	ug/L	0.012	3	151	3649	3
[	Ba	135	369.784	ug/L	6.198	1	15	1752078	1
[	Ba	137	385.858	ug/L	2.784	0	26	3174392	0
[>	Tb	159		ug/L			1253683	1196486	1
[	Tl	205	0.324	ug/L	0.007	2	128	10934	1
[	Pb	208	401.744	ug/L	4.806	1	347	17513276	0
[	Bi	209		ug/L			2594753	2469141	0
[	Th	232	5.422	ug/L	0.065	1	1408	234953	0
[	U	238	0.462	ug/L	0.004	0	31	21403	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:43:55

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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	891901	0
[	Be	9	0.521	ug/L	0.020	3	23	1667	2
	C	13		ug/L			82469	116231	1
	Cl	37		ug/L			4833777	4535393	6
[>	Sc	45		ug/L			1144296	1230444	0
[	V	51	22.400	ug/L	0.806	3	9450	521213	3
[	V-1	51	22.257	ug/L	0.693	3	48	508971	3
[	Cr	52	19.968	ug/L	0.253	1	27897	410448	1
[	Cr	53	19.505	ug/L	0.676	3	145	42465	2
[	Mn	55	949.879	ug/L	6.821	0	487	25164600	0
[	Co	59	8.493	ug/L	0.073	0	76	165557	1
[>	Ge	72		ug/L			608948	570311	0
[	Ni	60	22.195	ug/L	0.507	2	28	81782	1
[	Ni	62	22.431	ug/L	0.614	2	64	11876	2
[	Cu	63	27.033	ug/L	0.192	0	101	226573	0
[	Cu	65	27.675	ug/L	0.603	2	39	102179	1
[	Zn	66	426.360	ug/L	5.664	1	991	918111	1
[	Zn	67	414.541	ug/L	8.161	1	141	149510	1
[	Zn	68	437.534	ug/L	6.846	1	706	667411	1
[	As	75	14.284	ug/L	0.352	2	318	28748	2
[	As-1	75	14.539	ug/L	0.435	2	12623	40056	1
[	Se	82	0.015	ug/L	0.022	147	-10	-6	84
[	Se	78	0.223	ug/L	0.267	119	12864	12171	0
[	Mo	98	0.650	ug/L	0.007	1	28	3500	0
	Y	89		ug/L			406158	519277	1
	Kr	83		ug/L			794	1161	2
[>	In	115		ug/L			1093664	1083473	0
[	Ag	107	0.308	ug/L	0.013	4	42	4681	3
[	Cd	111	8.697	ug/L	0.197	2	115	46241	1
[	Cd	114	8.622	ug/L	0.282	3	65	112593	2
[	Sb	121	0.219	ug/L	0.004	1	182	3584	1
[	Sb	123	0.216	ug/L	0.005	2	151	2700	1
[	Ba	135	305.322	ug/L	5.973	1	15	1456854	1
[	Ba	137	319.224	ug/L	8.076	2	26	2644692	2
[>	Tb	159		ug/L			1253683	1190534	1
[	Tl	205	0.344	ug/L	0.011	3	128	11547	2
[	Pb	208	431.801	ug/L	14.833	3	347	18724589	1
[	Bi	209		ug/L			2594753	2427775	0
[	Th	232	4.852	ug/L	0.140	2	1408	209304	1
[	U	238	0.677	ug/L	0.020	2	31	31166	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:48:03
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	878120	0
	Be	9	0.603	ug/L	0.015	2	23	1896	3
	C	13		ug/L			82469	127497	0
	Cl	37		ug/L			4833777	4528802	1
>	Sc	45		ug/L			1144296	1221219	1
	V	51	28.122	ug/L	0.602	2	9450	646727	0
	V-1	51	27.992	ug/L	0.668	2	48	635156	1
	Cr	52	39.748	ug/L	0.753	1	27897	781304	0
	Cr	53	39.222	ug/L	0.978	2	145	84586	1
	Mn	55	1201.462	ug/L	27.410	2	487	31584050	0
	Co	59	10.927	ug/L	0.205	1	76	211435	3
>	Ge	72		ug/L			608948	572996	0
	Ni	60	27.382	ug/L	0.522	1	28	101358	1
	Ni	62	28.628	ug/L	0.458	1	64	15212	1
	Cu	63	33.522	ug/L	0.275	0	101	282257	0
	Cu	65	34.170	ug/L	0.393	1	39	126748	1
	Zn	66	479.573	ug/L	12.974	2	991	1037292	1
	Zn	67	453.563	ug/L	1.901	0	141	164354	1
	Zn	68	479.371	ug/L	17.688	3	706	734477	2
	As	75	24.992	ug/L	0.077	0	318	50315	0
	As-1	75	25.536	ug/L	0.125	0	12623	61706	0
	Se	82	0.126	ug/L	0.134	106	-10	20	156
	Se	78	0.335	ug/L	0.150	44	12864	12290	0
	Mo	98	0.743	ug/L	0.012	1	28	4015	1
	Y	89		ug/L			406158	491740	1
	Kr	83		ug/L			794	1122	5
>	In	115		ug/L			1093664	1076843	0
	Ag	107	0.359	ug/L	0.001	0	42	5426	0
	Cd	111	10.558	ug/L	0.157	1	115	55770	0
	Cd	114	10.632	ug/L	0.082	0	65	137999	0
	Sb	121	0.212	ug/L	0.005	2	182	3446	2
	Sb	123	0.217	ug/L	0.004	1	151	2692	2
	Ba	135	332.510	ug/L	4.875	1	15	1576986	0
	Ba	137	344.135	ug/L	4.239	1	26	2833788	0
>	Tb	159		ug/L			1253683	1185084	1
	Tl	205	0.406	ug/L	0.006	1	128	13536	0
	Pb	208	515.519	ug/L	3.460	0	347	22259563	0
	Bi	209		ug/L			2594753	2430746	0
	Th	232	7.247	ug/L	0.103	1	1408	310563	0
	U	238	0.626	ug/L	0.011	1	31	28705	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:52:47
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	868430	0
	Be	9	0.240	ug/L	0.017	6	23	759	7
	C	13		ug/L			82469	102233	0
	Cl	37		ug/L			4833777	4511549	2
>	Sc	45		ug/L			1144296	1160807	0
	V	51	12.291	ug/L	0.156	1	9450	274133	1
	V-1	51	12.291	ug/L	0.076	0	48	265184	1
	Cr	52	8.821	ug/L	0.302	3	27897	186852	2
	Cr	53	8.846	ug/L	0.130	1	145	18252	2
	Mn	55	167.140	ug/L	0.691	0	487	4177845	0
	Co	59	2.372	ug/L	0.023	0	76	43670	0
>	Ge	72		ug/L			608948	574184	1
	Ni	60	7.595	ug/L	0.169	2	28	28190	1
	Ni	62	7.875	ug/L	0.265	3	64	4235	2
	Cu	63	7.787	ug/L	0.027	0	101	65781	1
	Cu	65	7.967	ug/L	0.230	2	39	29639	2
	Zn	66	93.079	ug/L	1.667	1	991	202496	0
	Zn	67	88.112	ug/L	0.810	0	141	32099	0
	Zn	68	92.425	ug/L	0.986	1	706	142479	2
	As	75	5.924	ug/L	0.046	0	318	12180	0
	As-1	75	5.995	ug/L	0.141	2	12623	23622	0
	Se	82	0.115	ug/L	0.060	51	-10	17	80
	Se	78	0.078	ug/L	0.387	495	12864	12172	1
	Mo	98	0.153	ug/L	0.002	1	28	850	2
	Y	89		ug/L			406158	453830	3
	Kr	83		ug/L			794	915	2
>	In	115		ug/L			1093664	1037901	0
	Ag	107	0.111	ug/L	0.006	5	42	1637	4
	Cd	111	1.585	ug/L	0.040	2	115	8160	1
	Cd	114	1.547	ug/L	0.015	0	65	19410	0
	Sb	121	0.109	ug/L	0.007	6	182	1791	5
	Sb	123	0.107	ug/L	0.005	4	151	1347	2
	Ba	135	42.122	ug/L	0.337	0	15	192564	0
	Ba	137	41.719	ug/L	0.743	1	26	331118	1
>	Tb	159		ug/L			1253683	1169205	0
	Tl	205	0.148	ug/L	0.002	1	128	4963	0
	Pb	208	86.149	ug/L	0.436	0	347	3670388	0
	Bi	209		ug/L			2594753	2449037	0
	Th	232	5.080	ug/L	0.049	0	1408	215225	0
	U	238	0.481	ug/L	0.005	0	31	21744	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 A REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:57:59
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\111912.cal

Mn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	830250	2
[	Be	9	0.006	ug/L	0.000	6	23	39	1
	C	13		ug/L			82469	82432	2
	Cl	37		ug/L			4833777	4560860	2
[>	Sc	45		ug/L			1144296	1080989 ✓	0
[	V	51	0.760	ug/L	0.008	1	9450	24157	0
[	V-1	51	0.805	ug/L	0.009	1	48	16211	0
[	Cr	52	2.325	ug/L	0.057	2	27897	65284	2
[	Cr	53	2.465	ug/L	0.043	1	145	4835	2
[	Mn	55	66.928	ug/L	1.289	1	487	1558180	2
[	Co	59	0.375	ug/L	0.004	1	76	6485	0
[>	Ge	72		ug/L			608948	561132	2
[	Ni	60	2.016	ug/L	0.039	1	28	7332	2
[	Ni	62	1.952	ug/L	0.103	5	64	1070	2
[	Cu	63	10.430	ug/L	0.513	4	101	86011	2
[	Cu	65	10.632	ug/L	0.115	1	39	38642	1
[	Zn	66	165.909	ug/L	5.603	3	991	351907	1
[	Zn	67	153.318	ug/L	3.398	2	141	54477	1
[	Zn	68	160.981	ug/L	5.251	3	706	241913	1
[	As	75	0.263	ug/L	0.022	8	318	807	3
[	As-1	75	0.246	ug/L	0.147	59	12623	12097	0
[	Se	82	0.089	ug/L	0.022	24	-10	11	44
[	Se	78	0.146	ug/L	0.472	322	12864	11930	0
[	Mo	98	0.870	ug/L	0.028	3	28	4596	1
	Y	89		ug/L			406158	362760	1
	Kr	83		ug/L			794	822	0
[>	In	115		ug/L			1093664	996893	0
[	Ag	107	0.000	ug/L	0.000	73	42	41	5
[	Cd	111	0.440	ug/L	0.009	2	115	2254	2
[	Cd	114	0.443	ug/L	0.005	1	65	5384	1
[	Sb	121	0.339	ug/L	0.003	0	182	5014	1
[	Sb	123	0.348	ug/L	0.005	1	151	3912	1
[	Ba	135	12.529	ug/L	0.249	1	15	55021	1
[	Ba	137	12.396	ug/L	0.211	1	26	94519	1
[>	Tb	159		ug/L			1253683	1128430	1
[	Tl	205	0.003	ug/L	0.001	23	128	214	9
[	Pb	208	25.452	ug/L	0.255	1	347	1046692	1
[	Bi	209		ug/L			2594753	2381812	0
[	Th	232	0.023	ug/L	0.001	2	1408	2204	0
[	U	238	0.020	ug/L	0.001	3	31	892	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 C REN
Sample Dil Factor: 20
Comments: Mn
Sample Date/Time: Monday, November 19, 2012 20:02:06
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	821730	2
	Be	9	-0.002	ug/L	0.001	39	23	15	13
	C	13		ug/L			82469	83575	2
	Cl	37		ug/L			4833777	4516460	5
>	Sc	45		ug/L			1144296	1049290	0
	V	51	0.005	ug/L	0.001	9	9450	8772	0
	V-1	51	0.024	ug/L	0.003	10	48	504	9
	Cr	52	0.081	ug/L	0.011	13	27897	26889	0
	Cr	53	0.141	ug/L	0.015	10	145	394	6
	Mn	55	36.842	ug/L	0.841	2	487	832803	2
	Co	59	0.037	ug/L	0.001	3	76	688	3
>	Ge	72		ug/L			608948	556972	1
	Ni	60	0.405	ug/L	0.007	1	28	1484	3
	Ni	62	0.348	ug/L	0.017	4	64	237	5
	Cu	63	0.375	ug/L	0.010	2	101	3163	2
	Cu	65	0.263	ug/L	0.010	3	39	985	2
	Zn	66	3.620	ug/L	0.134	3	991	8510	3
	Zn	67	3.541	ug/L	0.094	2	141	1375	1
	Zn	68	3.582	ug/L	0.080	2	706	5975	0
	As	75	0.087	ug/L	0.014	15	318	459	4
	As-1	75	0.185	ug/L	0.124	67	12623	11893	0
	Se	82	0.051	ug/L	0.014	27	-10	2	129
	Se	78	0.510	ug/L	0.429	84	12864	12038	0
	Mo	98	2.228	ug/L	0.023	1	28	11654	2
	Y	89		ug/L			406158	359771	2
	Kr	83		ug/L			794	806	1
>	In	115		ug/L			1093664	1003914	0
	Ag	107	-0.001	ug/L	0.000	2	42	23	2
	Cd	111	0.025	ug/L	0.004	17	115	230	9
	Cd	114	0.029	ug/L	0.003	8	65	415	6
	Sb	121	0.279	ug/L	0.009	3	182	4178	2
	Sb	123	0.277	ug/L	0.003	0	151	3167	0
	Ba	135	4.501	ug/L	0.051	1	15	19914	1
	Ba	137	4.482	ug/L	0.081	1	26	34434	1
>	Tb	159		ug/L			1253683	1124562	0
	Tl	205	0.001	ug/L	0.001	73	128	139	12
	Pb	208	0.010	ug/L	0.004	36	347	703	19
	Bi	209		ug/L			2594753	2407151	0
	Th	232	-0.017	ug/L	0.001	3	1408	561	3
	U	238	0.008	ug/L	0.000	6	31	354	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 20:06:15
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	826813 ✓	1
	Be	9	50.207	ug/L	0.983	1	23	147004	1
	C	13		ug/L			82469	80779	1
	Cl	37		ug/L			4833777	4565344	2
>	Sc	45		ug/L			1144296	1058759 ✓	2
	V	51	49.582	ug/L	0.963	1	9450	981905	1
	V-1	51	49.384	ug/L	1.352	2	48	971358	1
	Cr	52	49.718	ug/L	0.519	1	27897	840825	1
	Cr	53	49.051	ug/L	2.114	4	145	91640	2
	Mn	55	47.601	ug/L	0.841	1	487	1085283	0
	Co	59	48.338	ug/L	2.048	4	76	809974	1
>	Ge	72		ug/L			608948	544288 ✓	1
	Ni	60	48.751	ug/L	1.218	2	28	171382	1
	Ni	62	48.145	ug/L	1.167	2	64	24258	1
	Cu	63	49.172	ug/L	1.129	2	101	393187	1
	Cu	65	49.411	ug/L	1.328	2	39	174044	1
	Zn	66	49.820	ug/L	1.136	2	991	103171	2
	Zn	67	49.750	ug/L	2.348	4	141	17228	3
	Zn	68	50.508	ug/L	1.229	2	706	74069	0
	As	75	49.195	ug/L	0.922	1	318	93787	0
	As-1	75	49.647	ug/L	1.263	2	12623	103280	0
	Se	82	48.177	ug/L	0.718	1	-10	10864	1
	Se	78	49.856	ug/L	1.737	3	12864	37724	1
	Mo	98	48.316	ug/L	0.712	1	28	246337	0
	Y	89		ug/L			406158	354385	0
	Kr	83		ug/L			794	847	2
>	In	115		ug/L			1093664	985348 ✓	0
	Ag	107	47.381	ug/L	0.756	1	42	649511	1
	Cd	111	49.553	ug/L	0.900	1	115	239143	1
	Cd	114	50.673	ug/L	0.349	0	65	601638	0
	Sb	121	50.136	ug/L	0.683	1	182	708758	1
	Sb	123	50.328	ug/L	0.243	0	151	540006	0
	Ba	135	50.394	ug/L	0.886	1	15	218708	1
	Ba	137	49.185	ug/L	0.513	1	26	370642	1
>	Tb	159		ug/L			1253683	1137553 ✓	0
	Tl	205	48.657	ug/L	0.358	0	128	1544541	0
	Pb	208	49.025	ug/L	0.425	0	347	2032238	0
	Bi	209		ug/L			2594753	2339429	1
	Th	232	53.680	ug/L	0.292	0	1408	2200267	0
	U	238	53.786	ug/L	0.250	0	31	2364320	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 20:13:07
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	807893 ✓	0
	Be	9	-0.001	ug/L	0.001	120	23	18	15
	C	13		ug/L			82469	79923	1
	Cl	37		ug/L			4833777	4543778	3
>	Sc	45		ug/L			1144296	1036351 ✓	0
	V	51	0.020	ug/L	0.006	30	9450	8946	0
	V-1	51	0.003	ug/L	0.001	39	48	98	21
	Cr	52	0.067	ug/L	0.019	28	27897	26332	0
	Cr	53	0.008	ug/L	0.001	13	145	146	1
	Mn	55	0.016	ug/L	0.001	4	487	790	2
	Co	59	0.001	ug/L	0.001	49	76	90	12
>	Ge	72		ug/L			608948	528134 ✓	1
	Ni	60	0.003	ug/L	0.001	32	28	34	7
	Ni	62	-0.029	ug/L	0.015	50	64	41	16
	Cu	63	0.006	ug/L	0.002	25	101	134	7
	Cu	65	0.009	ug/L	0.005	56	39	66	26
	Zn	66	-0.283	ug/L	0.005	1	991	295	3
	Zn	67	-0.218	ug/L	0.008	3	141	50	6
	Zn	68	-0.264	ug/L	0.027	10	706	240	16
	As	75	0.063	ug/L	0.004	5	318	393	2
	As-1	75	0.509	ug/L	0.111	21	12623	11861	0
	Se	82	0.061	ug/L	0.041	67	-10	4	195
	Se	78	1.738	ug/L	0.408	23	12864	12043	0
	Mo	98	0.004	ug/L	0.002	42	28	43	16
	Y	89		ug/L			406158	338390	1
	Kr	83		ug/L			794	762	3
>	In	115		ug/L			1093664	964362 ✓	0
	Ag	107	0.000	ug/L	0.001	762	42	38	26
	Cd	111	-0.003	ug/L	0.001	36	115	89	4
	Cd	114	0.000	ug/L	0.001	4101	65	58	15
	Sb	121	0.048	ug/L	0.002	3	182	830	2
	Sb	123	0.042	ug/L	0.002	5	151	573	3
	Ba	135	0.008	ug/L	0.000	4	15	49	4
	Ba	137	0.009	ug/L	0.002	18	26	88	13
>	Tb	159		ug/L			1253683	1082602 ✓	0
	Tl	205	0.002	ug/L	0.000	18	128	157	5
	Pb	208	0.006	ug/L	0.000	6	347	528	2
	Bi	209		ug/L			2594753	2311992	0
	Th	232	0.081	ug/L	0.009	11	1408	4355	8
	U	238	0.002	ug/L	0.000	18	31	128	14

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.20.12 **Analyst:** MJT **Page:** 1 **of** 6

All corrections made by analyst unless otherwise noted. 11.21.12 MJT

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2991-1
		3			↓ -2
		4			~~2992-6~~ 2993-15
		5			~~2993-15~~ 2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{62}Ni: high
		LR200			Ag 110%.
	-	LR300			^{137}Ba high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VS84 MB	REN	2	
		MBSPK	↓	↓	✓
		B	↓	↓	

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.20.12 **Analyst:** MJT **Page:** 2 **of** 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS84 C	REN	2	
	✓	ADUP		20	use 2x
	↓	A		↓	↓
	↓	ASPK		↓	↓
		ADUP		2 ✓	
		A		↓	
		ASPK		↓ ✓	
		CCV3			Al high; Mo, Ag high
		CCB3			
		VR36 A-L	SWN	500 ✓	Pb
		A		100	
		ADUP		✓	
		ASPK			↓ STL
		B			Pb, Zn
		C			
		D			
		H			
		I			
		J	↓	↓	↓
		CCV4			
		CCB4			
		VR36 K	SWN	100	Pb Zn
		VR37 D			Pb
		↓ E	↓	↓	Pb Zn

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 11.20.12 **Analyst:** MJJ **Page:** 3 **of** 6

All corrections made by analyst unless otherwise noted. 11.21.12 MJJ

Edit Label	Delete Data	ARI Sample ID		Prep Code	Dilution	Comments
		VR37	F	SWN	100	Pb Zn
			G			
			H			
			J			
			N			Zn
			O			Pb Zn
		VR34	G			Zn
		CCV5				
		CCB5				End CUP
		VR67	MB	REN	2	
			MBSPK			No mineral spike (CAF)
			ADUP			rr Mn 1/20
			A			
			ASPK			No mineral spike
			B			
		VR68	B			
			C			rr Cr (Sc noisy)
			E			
			F			
		CCV6				Al high
		CCB6				
		VR68	MB1	REN	2	
			MB2			Cu 1.2ppb (CAF)
			MB2SPK			

11-21-12

VR34 : 00597

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11.20.12

M2 Nexion	Analyst MH 11.21.12	Peer AH 11-21-12	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	✓	✓	see log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	see log
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	VR67
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	VR68
Method Blanks	✓	✓	VS04, VR68, VT12, VR88
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: VR67, VR68, VR88 VS04, VT12

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, November 20, 2012 09:38:58
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1307
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	4103.2	4103.210	51.410	1.3	Standard
	Mg	24.0	34617.4	34617.354	135.354	0.4	Standard
	In	114.9	79402.5	79402.497	332.550	0.4	Standard
	Pb	208.0	33456.5	33456.493	83.251	0.2	Standard
	U	238.1	56832.3	56832.274	328.557	0.6	Standard
⌈	CeO	155.9	1775.3	0.022	0.001	3.1	Standard
| >	Ce	139.9	80075.0	80074.956	430.400	0.5	Standard
⌊	Ce++	70.0	1039.6	0.013	0.000	1.5	Standard
	Bkgd	220.0	0.1	0.100	0.091	91.3	Standard

Current Conditions File Data

Current Value	Description
1.09	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
1250.00	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

Optimization Summary

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

Start Time: 11/20/2012 9:27:09 AM
End Time: 11/20/2012 9:33:43 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 (0.7/0.697)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.704)

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/20/2012 9:34:27 AM
End Time: 11/20/2012 9:38:38 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -11.59

SmartTune Wizard - Summary

ptimization Summary

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

tart Time: 11/20/2012 9:38:57 AM
nd Time: 11/20/2012 9:41:32 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4103.21
Obtained Intensity (Mg 23.985): 34617.35
Obtained Intensity (In 114.904): 79402.50
Obtained Intensity (Pb 207.977): 33456.49
Obtained Intensity (U 238.05): 56832.27
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=1775.32 / 80074.96)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1039.60 / 80074.96)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:12:37
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				960865	2
[	Be	9		ug/L				11	26
	C	13		ug/L				80899	2
	Cl	37		ug/L				4140238	0
[>	Sc	45		ug/L				1070141	2
[	Al	27		ug/L				6167	1
[	V	51		ug/L				8787	1
[	V-1	51		ug/L				45	9
[	Cr	52		ug/L				25797	2
[	Cr	53		ug/L				119	11
[	Fe	54		ug/L				71682	1
[	Fe	57		ug/L				9627	2
[	Mn	55		ug/L				492	4
[	Co	59		ug/L				78	13
[>	Ge	72		ug/L				580442	0
[	Ni	60		ug/L				28	4
[	Ni	62		ug/L				309	2
[	Cu	63		ug/L				301	4
[	Cu	65		ug/L				43	20
[	Zn	66		ug/L				184	1
[	Zn	67		ug/L				30	16
[	Zn	68		ug/L				181	7
[	As	75		ug/L				180	8
[	As-1	75		ug/L				11796	0
[	Se	82		ug/L				0	7481
[	Se	78		ug/L				11951	0
[	Mo	98		ug/L				6	23
	Y	89		ug/L				356764	0
	Kr	83		ug/L				473	4
[>	In	115		ug/L				987844	0
[	Ag	107		ug/L				15	20
[	Cd	111		ug/L				64	3
[	Cd	114		ug/L				38	15
[	Sb	121		ug/L				27	9
[	Sb	123		ug/L				21	28
[	Ba	135		ug/L				16	23
[	Ba	137		ug/L				32	18
[>	Tb	159		ug/L				1186851	1
[	Tl	205		ug/L				48	10
[	Pb	208		ug/L				169	8
[	Bi	209		ug/L				2692417	1
[	Th	232		ug/L				61	15
[	U	238		ug/L				6	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:16:53
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			960865	978539 ✓	0
	Be	9	0.200	ug/L	0.020	10	11	657	10
	C	13		ug/L			80899	83851	0
	Cl	37		ug/L			4140238	3991480	2
>	Sc	45		ug/L			1070141	1083470 ✓	1
	Al	27	20.000	ug/L	0.443	2	6167	681893	1
	V	51	0.200	ug/L	0.017	8	8787	13143	1
	V-1	51	0.200	ug/L	0.006	2	45	4330	1
	Cr	52	0.500	ug/L	0.055	10	25797	34909	1
	Cr	53	0.500	ug/L	0.021	4	119	1126	3
	Fe	54	20.000	ug/L	2.199	10	71682	96630	1
	Fe	57	20.000	ug/L	0.788	3	9627	18883	2
	Mn	55	0.500	ug/L	0.010	1	492	12164	2
	Co	59	0.200	ug/L	0.006	3	78	3657	4
>	Ge	72		ug/L			580442	588601 ✓	1
	Ni	60	0.500	ug/L	0.005	0	28	2255	1
	Ni	62	0.500	ug/L	0.030	5	309	615	2
	Cu	63	0.500	ug/L	0.008	1	301	4725	0
	Cu	65	0.500	ug/L	0.019	3	43	2072	2
	Zn	66	4.000	ug/L	0.054	1	184	10211	2
	Zn	67	4.000	ug/L	0.156	3	30	1487	3
	Zn	68	4.000	ug/L	0.014	0	181	6845	1
	As	75	0.200	ug/L	0.020	10	180	598	7
	As-1	75	0.200	ug/L	0.236	117	11796	12122	0
	Se	82	0.500	ug/L	0.028	5	0	99	6
	Se	78	0.500	ug/L	14.822	2964	11951	12123	0
	Mo	98	0.200	ug/L	0.003	1	6	929	2
	Y	89		ug/L			356764	351045	1
	Kr	83		ug/L			473	489	2
>	In	115		ug/L			987844	990466 ✓	0
	Ag	107	0.200	ug/L	0.002	1	15	2488	1
	Cd	111	0.100	ug/L	0.003	2	64	559	2
	Cd	114	0.100	ug/L	0.002	1	38	1302	2
	Sb	121	0.200	ug/L	0.008	3	27	2835	3
	Sb	123	0.200	ug/L	0.002	1	21	2110	1
	Ba	135	0.500	ug/L	0.002	0	16	2307	0
	Ba	137	0.500	ug/L	0.015	2	32	3804	2
>	Tb	159		ug/L			1186851	1181632 ✓	0
	Tl	205	0.200	ug/L	0.002	0	48	7450	0
	Pb	208	0.100	ug/L	0.001	1	169	5630	0
	Bi	209		ug/L			2692417	2678493	0
	Th	232	0.200	ug/L	0.013	6	61	6206	7
	U	238	0.200	ug/L	0.002	0	6	8808	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:21:09
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	979439	2
	Be	9	10.000	ug/L	0.183	1	11	32106	1
	C	13		ug/L			80899	82939	1
	Cl	37		ug/L			4140238	4000819	0
>	Sc	45		ug/L			1070141	1078111	0
	Al	27	1000.014	ug/L	12.033	1	6167	34844049	0
	V	51	10.000	ug/L	0.096	0	8787	209928	0
	V-1	51	10.000	ug/L	0.129	1	45	202053	0
	Cr	52	10.000	ug/L	0.048	0	25797	197649	0
	Cr	53	10.000	ug/L	0.184	1	119	19816	1
	Fe	54	1000.007	ug/L	18.064	1	71682	1291621	0
	Fe	57	999.997	ug/L	10.471	1	9627	460344	0
	Mn	55	10.000	ug/L	0.142	1	492	229658	1
	Co	59	10.000	ug/L	0.178	1	78	175750	1
>	Ge	72		ug/L			580442	589320	0
	Ni	60	9.995	ug/L	0.121	1	28	37539	0
	Ni	62	9.996	ug/L	0.245	2	309	5459	2
	Cu	63	9.999	ug/L	0.101	1	301	84644	0
	Cu	65	9.998	ug/L	0.102	1	43	37603	0
	Zn	66	9.822	ug/L	0.199	2	184	22366	2
	Zn	67	10.029	ug/L	0.083	0	30	3754	0
	Zn	68	9.935	ug/L	0.077	0	181	16098	1
	As	75	10.000	ug/L	0.104	1	180	20866	0
	As-1	75	10.002	ug/L	0.074	0	11796	32402	0
	Se	82	10.002	ug/L	0.125	1	0	2156	1
	Se	78	10.024	ug/L	0.140	1	11951	17350	0
	Mo	98	10.000	ug/L	0.034	0	6	46548	0
	Y	89		ug/L			356764	355252	3
	Kr	83		ug/L			473	477	10
>	In	115		ug/L			987844	994850	1
	Ag	107	10.000	ug/L	0.060	0	15	122282	0
	Cd	111	10.000	ug/L	0.267	2	64	49945	1
	Cd	114	10.000	ug/L	0.187	1	38	124043	1
	Sb	121	10.000	ug/L	0.091	0	27	140220	0
	Sb	123	10.000	ug/L	0.243	2	21	105918	1
	Ba	135	9.999	ug/L	0.051	0	16	43500	1
	Ba	137	10.000	ug/L	0.117	1	32	75419	0
>	Tb	159		ug/L			1186851	1201059	0
	Tl	205	10.000	ug/L	0.051	0	48	359030	0
	Pb	208	10.000	ug/L	0.036	0	169	468337	0
	Bi	209		ug/L			2692417	2682304	0
	Th	232	10.001	ug/L	0.072	0	61	395723	1
	U	238	10.000	ug/L	0.036	0	6	438323	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:25:38
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			960865	945717 ✓	0
Be	9	20.118	ug/L	0.171	0	11	63879	0
C	13		ug/L			80899	82003	2
Cl	37		ug/L			4140238	4367731	3
> Sc	45		ug/L			1070141	1067841 ✓	0
Al	27	1992.457	ug/L	20.293	1	6167	67741063	1
V	51	20.000	ug/L	0.399	1	8787	407182	2
V-1	51	20.012	ug/L	0.259	1	45	401504	2
Cr	52	19.923	ug/L	0.170	0	25797	359368	1
Cr	53	19.964	ug/L	0.307	1	119	38792	0
Fe	54	1994.695	ug/L	28.441	1	71682	2455441	0
Fe	57	2002.330	ug/L	92.205	4	9627	907387	3
Mn	55	20.050	ug/L	0.554	2	492	460142	1
Co	59	19.990	ug/L	0.275	1	78	347255	1
> Ge	72		ug/L			580442	579817 ✓	0
Ni	60	19.981	ug/L	0.328	1	28	73525	1
Ni	62	19.970	ug/L	0.869	4	309	10361	3
Cu	63	19.954	ug/L	0.723	3	301	164383	3
Cu	65	20.032	ug/L	0.323	1	43	74556	1
Zn	66	19.883	ug/L	0.325	1	184	43481	1
Zn	67	20.018	ug/L	0.393	1	30	7366	2
Zn	68	19.969	ug/L	0.092	0	181	31490	0
As	75	19.957	ug/L	0.151	0	180	40450	0
As-1	75	19.996	ug/L	0.181	0	11796	51921	0
Se	82	19.986	ug/L	0.522	2	0	4227	2
Se	78	20.146	ug/L	0.369	1	11951	22561	0
Mo	98	19.984	ug/L	0.460	2	6	91216	2
Y	89		ug/L			356764	354872	0
Kr	83		ug/L			473	497	9
> In	115		ug/L			987844	993955 ✓	0
Ag	107	19.881	ug/L	0.500	2	15	237222	2
Cd	111	19.878	ug/L	0.372	1	64	96795	2
Cd	114	19.904	ug/L	0.275	1	38	241990	1
Sb	121	19.923	ug/L	0.073	0	27	274867	0
Sb	123	19.984	ug/L	0.173	0	21	210807	0
Ba	135	19.978	ug/L	0.128	0	16	86450	0
Ba	137	19.975	ug/L	0.123	0	32	149748	0
> Tb	159		ug/L			1186851	1180844 ✓	0
Tl	205	19.982	ug/L	0.108	0	48	702830	1
Pb	208	20.007	ug/L	0.211	1	169	922310	0
Bi	209		ug/L			2692417	2620576	0
Th	232	20.102	ug/L	0.255	1	61	798214	0
U	238	20.086	ug/L	0.096	0	6	880832	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:30:17
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			960865	925854	1
[	Be	9	49.818	ug/L	0.201	0	11	152080	1
	C	13		ug/L			80899	78163	2
	Cl	37		ug/L			4140238	4361895	1
[>	Sc	45		ug/L			1070141	1064145	2
[	Al	27	4985.303	ug/L	81.155	1	6167	166413965	1
[	V	51	49.883	ug/L	1.830	3	8787	986873	1
[	V-1	51	49.829	ug/L	2.008	4	45	978829	1
[	Cr	52	49.964	ug/L	1.128	2	25797	856189	0
[	Cr	53	49.786	ug/L	1.877	3	119	94176	2
[	Fe	54	4964.378	ug/L	115.842	2	71682	5779099	0
[	Fe	57	5008.381	ug/L	157.853	3	9627	2265895	1
[	Mn	55	49.706	ug/L	1.519	3	492	1103363	0
[	Co	59	49.619	ug/L	1.836	3	78	826884	1
[>	Ge	72		ug/L			580442	559686	2
[	Ni	60	49.865	ug/L	1.957	3	28	174656	3
[	Ni	62	50.136	ug/L	1.370	2	309	24985	0
[	Cu	63	50.072	ug/L	1.368	2	301	400504	1
[	Cu	65	49.910	ug/L	0.919	1	43	177595	0
[	Zn	66	49.891	ug/L	2.167	4	184	103882	1
[	Zn	67	49.760	ug/L	0.847	1	30	17226	0
[	Zn	68	49.883	ug/L	1.477	2	181	74791	1
[	As	75	50.071	ug/L	1.213	2	180	98369	1
[	As-1	75	50.149	ug/L	1.432	2	11796	109971	1
[	Se	82	50.015	ug/L	1.199	2	0	10223	0
[	Se	78	50.311	ug/L	1.943	3	11951	37936	0
[	Mo	98	50.214	ug/L	2.271	4	6	225916	2
	Y	89		ug/L			356764	351845	1
	Kr	83		ug/L			473	517	2
[>	In	115		ug/L			987844	961901	1
[	Ag	107	49.866	ug/L	0.791	1	15	568155	1
[	Cd	111	49.792	ug/L	1.074	2	64	229725	0
[	Cd	114	49.832	ug/L	0.609	1	38	576556	0
[	Sb	121	49.996	ug/L	1.110	2	27	667059	0
[	Sb	123	49.973	ug/L	0.572	1	21	508724	0
[	Ba	135	49.990	ug/L	0.826	1	16	209081	0
[	Ba	137	50.044	ug/L	0.651	1	32	364598	0
[>	Tb	159		ug/L			1186851	1168867	1
[	Tl	205	49.825	ug/L	0.772	1	48	1704400	0
[	Pb	208	49.730	ug/L	1.059	2	169	2208851	0
[	Bi	209		ug/L			2692417	2547167	1
[	Th	232	50.038	ug/L	1.326	2	61	1973621	0
[	U	238	50.542	ug/L	1.404	2	6	2318983	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:36:36
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			960865	915709 ✓	2
	Be	9	99.847	ug/L	2.863	2	11	299775	0
	C	13		ug/L			80899	81737	2
	Cl	37		ug/L			4140238	4449868	0
>	Sc	45		ug/L			1070141	1052511 ✓	2
	Al	27	9996.434	ug/L	246.819	2	6167	329591704	0
	V	51	100.850	ug/L	2.749	2	8787	2023339	4
	V-1	51	100.922	ug/L	2.105	2	45	2024639	4
	Cr	52	100.054	ug/L	1.133	1	25797	1673569	1
	Cr	53	100.310	ug/L	2.903	2	119	189529	1
	Fe	54	10057.952	ug/L	245.556	2	71682	11733104	0
	Fe	57	10070.524	ug/L	267.263	2	9627	4604989	1
	Mn	55	101.314	ug/L	1.565	1	492	2326196	0
	Co	59	100.258	ug/L	4.049	4	78	1666735	2
>	Ge	72		ug/L			580442	559083 ✓	2
	Ni	60	100.151	ug/L	2.770	2	28	352107	0
	Ni	62	99.994	ug/L	4.351	4	309	49455	1
	Cu	63	99.441	ug/L	3.237	3	301	779556	0
	Cu	65	99.798	ug/L	2.987	2	43	352226	0
	Zn	66	99.350	ug/L	3.634	3	184	202123	1
	Zn	67	99.825	ug/L	3.625	3	30	34279	1
	Zn	68	99.188	ug/L	4.400	4	181	144452	2
	As	75	99.696	ug/L	2.551	2	180	193501	0
	As-1	75	99.652	ug/L	2.851	2	11796	204808	0
	Se	82	99.674	ug/L	2.644	2	0	20132	1
	Se	78	99.517	ug/L	3.681	3	11951	62872	0
	Mo	98	100.204	ug/L	2.357	2	6	453544	0
	Y	89		ug/L			356764	347660	1
	Kr	83		ug/L			473	597	2
>	In	115		ug/L			987844	946925 ✓	0
	Ag	107	100.118	ug/L	2.038	2	15	1127434	1
	Cd	111	99.863	ug/L	1.417	1	64	451517	1
	Cd	114	99.712	ug/L	0.585	0	38	1124961	0
	Sb	121	100.202	ug/L	0.904	0	27	1325263	0
	Sb	123	99.879	ug/L	1.341	1	21	996963	1
	Ba	135	100.341	ug/L	0.635	0	16	417940	1
	Ba	137	100.076	ug/L	1.139	1	32	719602	0
>	Tb	159		ug/L			1186851	1154703 ✓	0
	Tl	205	101.487	ug/L	0.215	0	48	3609088	0
	Pb	208	100.639	ug/L	1.084	1	169	4512916	0
	Bi	209		ug/L			2692417	2422093	0
	Th	232	101.773	ug/L	1.218	1	61	4215905	1
	U	238	99.990	ug/L	1.503	1	6	4532127	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:43:35
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	923483 ✓	0
	Be	9	0.004	ug/L	0.004	83	11	24	45
	C	13		ug/L			80899	78311	2
	Cl	37		ug/L			4140238	4236055	2
>	Sc	45		ug/L			1070141	1077926 ✓	2
	Al	27	0.188	ug/L	0.195	103	6167	12686	55
	V	51	0.008	ug/L	0.014	168	8787	9016	1
	V-1	51	0.003	ug/L	0.003	98	45	100	56
	Cr	52	0.026	ug/L	0.053	200	25797	26414	0
	Cr	53	0.007	ug/L	0.005	66	119	133	8
	Fe	54	-0.221	ug/L	2.301	1039	71682	71905	2
	Fe	57	0.998	ug/L	0.777	77	9627	10167	5
	Mn	55	0.002	ug/L	0.001	84	492	535	8
	Co	59	0.002	ug/L	0.002	112	78	108	31
>	Ge	72		ug/L			580442	560706 ✓	1
	Ni	60	0.003	ug/L	0.004	132	28	38	36
	Ni	62	0.222	ug/L	0.197	88	309	408	23
	Cu	63	0.028	ug/L	0.020	73	301	510	31
	Cu	65	0.006	ug/L	0.003	45	43	64	15
	Zn	66	0.008	ug/L	0.005	59	184	194	3
	Zn	67	-0.011	ug/L	0.003	25	30	26	3
	Zn	68	0.008	ug/L	0.016	201	181	186	11
	As	75	0.005	ug/L	0.003	61	180	184	3
	As-1	75	0.179	ug/L	0.072	40	11796	11743	0
	Se	82	-0.022	ug/L	0.022	97	0	-4	100
	Se	78	0.669	ug/L	0.266	39	11951	11890	0
	Mo	98	0.021	ug/L	0.002	11	6	102	10
	Y	89		ug/L			356764	353887	0
	Kr	83		ug/L			473	484	0
>	In	115		ug/L			987844	969341 ✓	0
	Ag	107	0.004	ug/L	0.003	75	15	66	58
	Cd	111	0.008	ug/L	0.002	22	64	101	8
	Cd	114	0.002	ug/L	0.002	101	38	66	42
	Sb	121	0.114	ug/L	0.011	9	27	1577	9
	Sb	123	0.116	ug/L	0.011	9	21	1209	9
	Ba	135	0.003	ug/L	0.003	134	16	27	54
	Ba	137	0.001	ug/L	0.002	182	32	40	38
>	Tb	159		ug/L			1186851	1137243 ✓	0
	Tl	205	0.019	ug/L	0.008	40	48	706	37
	Pb	208	0.003	ug/L	0.002	85	169	280	36
	Bi	209		ug/L			2692417	2632254	1
	Th	232	0.179	ug/L	0.008	4	61	7371	3
	U	238	0.006	ug/L	0.002	37	6	266	37

Sample Information

Sample Date/Time: Tuesday, November 20, 2012 10:43:35
Method File: C:\NexIONData\Method\200.8+AlFe3mlLoop.mth
Mass Calibration File: C:\NexIONData\MassCal\Default.tun
Conditions File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\112012.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							
Al	27	**1.0000**	0.031	20.00	1000	2000	5000	10000
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
Fe	54	**0.9999**	0.001	20.00	1000	2000	5000	10000
Fe	57	**0.9999**	0.000	20.00	1000	2000	5000	10000
Mn	55	**0.9997**	0.022	0.50	10	20	50	100
Co	59	**1.0000**	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	**0.9999**	0.014	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	**1.0000**	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**	0.012	0.20	10	20	50	100
Cd	111	**1.0000**	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**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9996**	0.031	0.20	10	20	50	100
Pb	208	**0.9999**	0.039	0.10	10	20	50	100
Bi	209							
Th	232	**0.9995**	0.036	0.20	10	20	50	100
U	238	**0.9999**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:50:34
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	936680 ✓	2
	Be	9	50.318	ug/L	1.566	3	11	154546	1
	C	13		ug/L			80899	83301	2
	Cl	37		ug/L			4140238	4414721	2
>	Sc	45		ug/L			1070141	1083357 ✓	2
	Al	27	4868.919	ug/L	88.306	1	6167	165262624	1
	V	51	50.418	ug/L	0.882	1	8787	1045011	0
	V-1	51	50.073	ug/L	0.971	1	45	1033485	1
	Cr	52	50.067	ug/L	1.605	3	25797	874773	0
	Cr	53	48.903	ug/L	1.660	3	119	95163	1
	Fe	54	4983.303	ug/L	167.567	3	71682	6019801	1
	Fe	57	5082.430	ug/L	242.888	4	9627	2396175	2
	Mn	55	48.315	ug/L	0.656	1	492	1142133	0
	Co	59	51.234	ug/L	0.248	0	78	877148	1
>	Ge	72		ug/L			580442	564134 ✓	0
	Ni	60	52.440	ug/L	0.555	1	28	186139	1
	Ni	62	52.259	ug/L	1.038	1	309	26242	1
	Cu	63	51.839	ug/L	0.592	1	301	410423	0
	Cu	65	51.481	ug/L	0.900	1	43	183457	1
	Zn	66	50.674	ug/L	0.649	1	184	104180	1
	Zn	67	50.430	ug/L	0.411	0	30	17499	0
	Zn	68	50.956	ug/L	0.503	0	181	75022	1
	As	75	52.457	ug/L	0.632	1	180	102859	0
	As-1	75	52.474	ug/L	1.015	1	11796	114297	1
	Se	82	79.322	ug/L	0.706	0	0	16173	0
	Se	78	79.167	ug/L	1.028	1	11951	52867	0
	Mo	98	49.675	ug/L	0.163	0	6	226965	0
	Y	89		ug/L			356764	360498	1
	Kr	83		ug/L			473	497	2
>	In	115		ug/L			987844	960713 ✓	0
	Ag	107	50.590	ug/L	0.579	1	15	578013	0
	Cd	111	50.052	ug/L	0.233	0	64	229636	0
	Cd	114	50.491	ug/L	0.406	0	38	577963	0
	Sb	121	50.007	ug/L	0.280	0	27	671043	0
	Sb	123	49.783	ug/L	0.538	1	21	504174	1
	Ba	135	50.373	ug/L	0.438	0	16	212872	1
	Ba	137	50.458	ug/L	0.614	1	32	368116	0
>	Tb	159		ug/L			1186851	1167024 ✓	0
	Tl	205	48.536	ug/L	0.333	0	48	1744459	0
	Pb	208	50.065	ug/L	0.286	0	169	2269100	0
	Bi	209		ug/L			2692417	2520851	0
	Th	232	53.486	ug/L	0.351	0	61	2239344	0
	U	238	52.314	ug/L	0.119	0	6	2396527	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:57:32
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: C:\NexION Data\System\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	939644 ✓	0
	Be	9	0.001	ug/L	0.003	336	11	13	55
	C	13		ug/L			80899	79950	2
	Cl	37		ug/L			4140238	4210460	2
>	Sc	45		ug/L			1070141	1086879 ✓	1
	Al	27	0.020	ug/L	0.013	63	6167	6945	7
	V	51	-0.003	ug/L	0.015	501	8787	8859	2
	V-1	51	0.001	ug/L	0.000	54	45	56	11
	Cr	52	-0.001	ug/L	0.052	3775	25797	26169	1
	Cr	53	0.011	ug/L	0.010	92	119	142	13
	Fe	54	-1.998	ug/L	1.750	87	71682	70393	1
	Fe	57	0.235	ug/L	1.204	511	9627	9891	6
	Mn	55	-0.001	ug/L	0.001	45	492	467	1
	Co	59	0.000	ug/L	0.000	78	78	82	1
>	Ge	72		ug/L			580442	571262 ✓	2
	Ni	60	-0.000	ug/L	0.001	315	28	26	16
	Ni	62	-0.049	ug/L	0.021	42	309	280	4
	Cu	63	0.002	ug/L	0.003	170	301	309	5
	Cu	65	0.001	ug/L	0.001	89	43	47	11
	Zn	66	0.006	ug/L	0.010	149	184	194	11
	Zn	67	0.029	ug/L	0.007	25	30	40	7
	Zn	68	0.011	ug/L	0.018	162	181	195	13
	As	75	-0.008	ug/L	0.015	188	180	161	19
	As-1	75	0.097	ug/L	0.074	76	11796	11800	0
	Se	82	-0.022	ug/L	0.035	158	0	-4	163
	Se	78	0.383	ug/L	0.319	83	11951	11962	0
	Mo	98	0.010	ug/L	0.002	23	6	52	22
	Y	89		ug/L			356764	358277	0
	Kr	83		ug/L			473	474	0
>	In	115		ug/L			987844	981916 ✓	0
	Ag	107	0.001	ug/L	0.000	24	15	31	12
	Cd	111	0.003	ug/L	0.002	62	64	77	10
	Cd	114	0.001	ug/L	0.001	95	38	50	22
	Sb	121	0.040	ug/L	0.007	16	27	573	15
	Sb	123	0.041	ug/L	0.007	17	21	450	16
	Ba	135	-0.001	ug/L	0.001	273	16	14	42
	Ba	137	-0.001	ug/L	0.000	34	32	25	9
>	Tb	159		ug/L			1186851	1157532 ✓	0
	Tl	205	0.006	ug/L	0.003	54	48	268	44
	Pb	208	0.000	ug/L	0.001	306	169	176	20
	Bi	209		ug/L			2692417	2653108	1
	Th	232	0.102	ug/L	0.006	5	61	4277	5
	U	238	0.003	ug/L	0.000	8	6	120	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:01:47
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	924484 ✓	1
	Be	9	49.929	ug/L	1.775	3	11	151351	1
	C	13		ug/L			80899	79228	0
	Cl	37		ug/L			4140238	4410209	3
>	Sc	45		ug/L			1070141	1076578 ✓	0
	Al	27	4861.992	ug/L	73.811	1	6167	164032164	1
	V	51	47.697	ug/L	0.214	0	8787	983137	0
	V-1	51	47.481	ug/L	0.175	0	45	974078	0
	Cr	52	48.584	ug/L	0.175	0	25797	844710	0
	Cr	53	47.839	ug/L	0.236	0	119	92555	0
	Fe	54	4821.611	ug/L	37.517	0	71682	5792837	0
	Fe	57	4894.433	ug/L	122.552	2	9627	2295050	2
	Mn	55	46.923	ug/L	0.169	0	492	1102516	0
	Co	59	49.082	ug/L	0.598	1	78	835099	1
>	Ge	72		ug/L			580442	558833 ✓	1
	Ni	60	51.413	ug/L	2.113	4	28	180703	2
	Ni	62	50.553	ug/L	0.905	1	309	25153	0
	Cu	63	50.638	ug/L	1.534	3	301	397051	1
	Cu	65	50.179	ug/L	0.139	0	43	177140	1
	Zn	66	51.764	ug/L	1.336	2	184	105386	1
	Zn	67	50.836	ug/L	1.513	2	30	17469	1
	Zn	68	52.367	ug/L	1.158	2	181	76351	0
	As	75	50.173	ug/L	0.937	1	180	97448	0
	As-1	75	50.301	ug/L	1.066	2	11796	108987	0
	Se	82	50.728	ug/L	0.824	1	0	10244	0
	Se	78	51.225	ug/L	1.246	2	11951	37941	0
	Mo	98	50.601	ug/L	0.969	1	6	228986	0
	Y	89		ug/L			356764	352733	1
	Kr	83		ug/L			473	536	1
>	In	115		ug/L			987844	957533 ✓	0
	Ag	107	48.304	ug/L	0.336	0	15	550075	0
	Cd	111	49.622	ug/L	0.522	1	64	226903	0
	Cd	114	49.624	ug/L	0.582	1	38	566141	0
	Sb	121	49.121	ug/L	0.049	0	27	656970	0
	Sb	123	49.442	ug/L	0.410	0	21	499043	0
	Ba	135	49.274	ug/L	0.303	0	16	207536	0
	Ba	137	49.125	ug/L	0.433	0	32	357231	1
>	Tb	159		ug/L			1186851	1151585 ✓	0
	Tl	205	47.454	ug/L	0.548	1	48	1683040	1
	Pb	208	48.689	ug/L	0.177	0	169	2177564	0
	Bi	209		ug/L			2692417	2541384	0
	Th	232	49.309	ug/L	2.868	5	61	2037364	6
	U	238	50.786	ug/L	0.107	0	6	2295734	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:08:27
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	940303	2
[	Be	9	0.001	ug/L	0.001	178	11	13	23
	C	13		ug/L			80899	81398	1
	Cl	37		ug/L			4140238	4231699	1
[>	Sc	45		ug/L			1070141	1083309	2
[	Al	27	0.077	ug/L	0.121	156	6167	8838	45
[	V	51	-0.002	ug/L	0.020	1047	8787	8851	2
[	V-1	51	0.001	ug/L	0.001	94	45	72	33
[	Cr	52	-0.005	ug/L	0.061	1252	25797	26017	2
[	Cr	53	0.006	ug/L	0.004	69	119	132	8
[	Fe	54	-0.174	ug/L	3.345	1924	71682	72290	3
[	Fe	57	-0.089	ug/L	1.449	1620	9627	9700	6
[	Mn	55	-0.002	ug/L	0.001	57	492	453	6
[	Co	59	0.001	ug/L	0.001	152	78	90	17
[>	Ge	72		ug/L			580442	574267	2
[	Ni	60	-0.000	ug/L	0.002	936	28	27	17
[	Ni	62	-0.036	ug/L	0.054	149	309	288	11
[	Cu	63	0.003	ug/L	0.004	122	301	324	9
[	Cu	65	0.003	ug/L	0.002	57	43	54	11
[	Zn	66	0.002	ug/L	0.002	91	184	186	4
[	Zn	67	0.007	ug/L	0.001	15	30	32	1
[	Zn	68	0.007	ug/L	0.006	85	181	190	6
[	As	75	0.002	ug/L	0.026	1585	180	180	26
[	As-1	75	0.060	ug/L	0.167	277	11796	11785	0
[	Se	82	-0.023	ug/L	0.058	256	0	-4	252
[	Se	78	0.231	ug/L	0.610	264	11951	11941	0
[	Mo	98	0.018	ug/L	0.011	60	6	88	53
	Y	89		ug/L			356764	350649	0
	Kr	83		ug/L			473	490	0
[>	In	115		ug/L			987844	958070	0
[	Ag	107	0.006	ug/L	0.007	122	15	84	101
[	Cd	111	0.008	ug/L	0.005	70	64	97	25
[	Cd	114	0.004	ug/L	0.006	151	38	82	83
[	Sb	121	0.076	ug/L	0.007	9	27	1047	9
[	Sb	123	0.078	ug/L	0.009	11	21	805	11
[	Ba	135	0.001	ug/L	0.004	310	16	21	79
[	Ba	137	0.000	ug/L	0.004	810	32	35	84
[>	Tb	159		ug/L			1186851	1138789	1
[	Tl	205	0.010	ug/L	0.007	66	48	408	59
[	Pb	208	0.002	ug/L	0.002	118	169	234	37
[	Bi	209		ug/L			2692417	2621422	0
[	Th	232	0.142	ug/L	0.008	5	61	5839	4
[	U	238	0.003	ug/L	0.002	61	6	157	59

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:12:41
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	940707 ✓	0
	Be	9	0.204	ug/L	0.006	2	11	641	2
	C	13		ug/L			80899	81957	1
	Cl	37		ug/L			4140238	4177079	1
>	Sc	45		ug/L			1070141	1097321 ✓	1
	Al	27	19.061	ug/L	0.705	3	6167	661458	1
	V	51	0.192	ug/L	0.006	3	8787	13002	2
	V-1	51	0.202	ug/L	0.005	2	45	4266	1
	Cr	52	0.477	ug/L	0.013	2	25797	34644	1
	Cr	53	0.508	ug/L	0.037	7	119	1121	4
	Fe	54	15.182	ug/L	1.622	10	71682	91842	0
	Fe	57	19.226	ug/L	1.457	7	9627	19017	2
	Mn	55	0.478	ug/L	0.007	1	492	11958	2
	Co	59	0.202	ug/L	0.011	5	78	3575	4
>	Ge	72		ug/L			580442	579296 ✓	0
	Ni	60	0.522	ug/L	0.024	4	28	1929	4
	Ni	62	0.393	ug/L	0.031	7	309	509	3
	Cu	63	0.519	ug/L	0.008	1	301	4521	1
	Cu	65	0.504	ug/L	0.010	2	43	1885	2
	Zn	66	4.546	ug/L	0.028	0	184	9763	0
	Zn	67	3.948	ug/L	0.124	3	30	1435	3
	Zn	68	4.415	ug/L	0.137	3	181	6840	3
	As	75	0.221	ug/L	0.017	7	180	624	5
	As-1	75	0.151	ug/L	0.039	25	11796	12076	0
	Se	82	0.535	ug/L	0.021	3	0	112	4
	Se	78	0.261	ug/L	0.107	40	11951	12067	0
	Mo	98	0.198	ug/L	0.005	2	6	936	2
	Y	89		ug/L			356764	355128	1
	Kr	83		ug/L			473	468	4
>	In	115		ug/L			987844	967737 ✓	1
	Ag	107	0.206	ug/L	0.007	3	15	2387	2
	Cd	111	0.116	ug/L	0.005	4	64	597	5
	Cd	114	0.107	ug/L	0.002	1	38	1277	2
	Sb	121	0.224	ug/L	0.004	1	27	3051	1
	Sb	123	0.217	ug/L	0.009	4	21	2236	2
	Ba	135	0.498	ug/L	0.006	1	16	2134	1
	Ba	137	0.497	ug/L	0.003	0	32	3686	1
>	Tb	159		ug/L			1186851	1150511 ✓	1
	Tl	205	0.209	ug/L	0.005	2	48	7436	1
	Pb	208	0.112	ug/L	0.002	1	169	5183	0
	Bi	209		ug/L			2692417	2639071	0
	Th	232	0.214	ug/L	0.004	1	61	8906	2
	U	238	0.195	ug/L	0.002	1	6	8818	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:16:55
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	961320	2
	Be	9	0.005	ug/L	0.001	9	11	29	6
	C	13		ug/L			80899	161791	3
	Cl	37		ug/L			4140238	12878335	1
>	Sc	45		ug/L			1070141	1135326	0
	Al	27	19829.547	ug/L	623.890	3	6167	705436278	2
	V	51	0.208	ug/L	0.021	10	8787	13800	2
	V-1	51	1.173	ug/L	0.051	4	45	25428	4
	Cr	52	0.648	ug/L	0.003	0	25797	38894	0
	Cr	53	3.920	ug/L	0.178	4	119	8113	4
	Fe	54	19313.775	ug/L	153.433	0	71682	24241477	0
	Fe	57	19643.545	ug/L	359.648	1	9627	9682684	1
	Mn	55	0.068	ug/L	0.004	5	492	2211	4
	Co	59	0.025	ug/L	0.001	4	78	536	3
>	Ge	72		ug/L			580442	566379	1
	Ni	60	0.418	ug/L	0.010	2	28	1517	2
	Ni	62	3.876	ug/L	0.951	24	309	2233	21
	Cu	63	1.160	ug/L	0.080	6	301	9504	6
	Cu	65	0.429	ug/L	0.032	7	43	1574	6
	Zn	66	1.829	ug/L	0.040	2	184	3947	1
	Zn	67	7.532	ug/L	0.281	3	30	2648	2
	Zn	68	1.248	ug/L	0.050	3	181	2017	1
	As	75	0.318	ug/L	0.027	8	180	801	8
	As-1	75	0.729	ug/L	0.088	12	11796	12942	0
	Se	82	-0.285	ug/L	0.087	30	0	-58	30
	Se	78	1.729	ug/L	0.433	25	11951	12563	0
	Mo	98	409.495 ✓	ug/L	13.755	3	6	1877812	2
	Y	89		ug/L			356764	358597	1
	Kr	83		ug/L			473	774	3
>	In	115		ug/L			987844	953256	0
	Ag	107	0.035	ug/L	0.002	4	15	410	3
	Cd	111	0.129	ug/L	0.006	4	64	650	5
	Cd	114	0.259	ug/L	0.006	2	38	2981	1
	Sb	121	0.101	ug/L	0.006	5	27	1371	6
	Sb	123	0.097	ug/L	0.005	4	21	997	5
	Ba	135	0.064	ug/L	0.005	7	16	284	8
	Ba	137	0.051	ug/L	0.004	7	32	399	7
>	Tb	159		ug/L			1186851	1175745	0
	Tl	205	0.042	ug/L	0.003	6	48	1565	6
	Pb	208	0.044	ug/L	0.001	2	169	2156	2
	Bi	209		ug/L			2692417	2387061	0
	Th	232	0.263	ug/L	0.076	28	61	11131	28
	U	238	0.017	ug/L	0.000	1	6	789	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:23:33
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	992823 ✓	2
	Be	9	0.002	ug/L	0.001	85	11	17	29
	C	13		ug/L			80899	161843	2
	Cl	37		ug/L			4140238	12379305	6
>	Sc	45		ug/L			1070141	1123179 ✓	2
	Al	27	20042.857	ug/L	512.029	2	6167	705192418	0
	V	51	0.200	ug/L	0.110	54	8787	13482	16
	V-1	51	1.277	ug/L	0.022	1	45	27374	2
	Cr	52	20.441	ug/L	0.441	2	25797	386359	0
	Cr	53	23.805	ug/L	0.496	2	119	48101	1
	Fe	54	19100.444	ug/L	808.596	4	71682	23705272	2
	Fe	57	19358.997	ug/L	754.504	3	9627	9436061	2
	Mn	55	18.734	ug/L	0.405	2	492	459433	1
	Co	59	19.699	ug/L	0.405	2	78	349616	0
>	Ge	72		ug/L			580442	559668 ✓	0
	Ni	60	21.046	ug/L	0.324	1	28	74133	2
	Ni	62	27.747	ug/L	1.454	5	309	13961	4
	Cu	63	21.631	ug/L	0.100	0	301	170076	0
	Cu	65	20.551	ug/L	0.506	2	43	72672	1
	Zn	66	19.881	ug/L	0.216	1	184	40655	1
	Zn	67	23.914	ug/L	0.104	0	30	8248	0
	Zn	68	19.123	ug/L	0.390	2	181	28038	1
	As	75	19.294	ug/L	0.238	1	180	37643	1
	As-1	75	19.943	ug/L	0.195	0	11796	50146	0
	Se	82	-0.380	ug/L	0.083	21	0	-76	22
	Se	78	2.659	ug/L	0.254	9	11951	12898	0
	Mo	98	427.591 ✓	ug/L	8.753	2	6	1938029	1
	Y	89		ug/L			356764	360827	0
	Kr	83		ug/L			473	800	4
>	In	115		ug/L			987844	978158 ✓	1
	Ag	107	21.079	ug/L	0.186	0	15	245245	2
	Cd	111	19.970	ug/L	0.150	0	64	93315	0
	Cd	114	19.928	ug/L	0.320	1	38	232241	0
	Sb	121	0.072	ug/L	0.002	2	27	1007	1
	Sb	123	0.069	ug/L	0.000	0	21	729	1
	Ba	135	0.054	ug/L	0.002	4	16	247	4
	Ba	137	0.041	ug/L	0.002	5	32	334	4
>	Tb	159		ug/L			1186851	1189556 ✓	0
	Tl	205	0.031	ug/L	0.001	2	48	1201	1
	Pb	208	0.033	ug/L	0.001	4	169	1693	3
	Bi	209		ug/L			2692417	2365139	0
	Th	232	0.094	ug/L	0.011	11	61	4060	11
	U	238	0.001	ug/L	0.000	39	6	40	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:30:31
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	939442 ✓	0
	Be	9	194.858	ug/L	1.380	0	11	600464	0
	C	13		ug/L			80899	88484	1
	Cl	37		ug/L			4140238	4549258	2
>	Sc	45		ug/L			1070141	1050943 ✓	2
	Al	27	20736.355	ug/L	667.444	3	6167	682631768	1
	V	51	210.026	ug/L	5.907	2	8787	4194876	0
	V-1	51	206.225	ug/L	6.963	3	45	4127703	1
	Cr	52	210.372	ug/L	0.999	0	25797	3486273	2
	Cr	53	197.463	ug/L	3.672	1	119	372467	0
	Fe	54	19401.434	ug/L	569.962	2	71682	22532975	1
	Fe	57	19487.685	ug/L	549.014	2	9627	8888777	1
	Mn	55	198.218	ug/L	5.378	2	492	4543027	0
	Co	59	207.445	ug/L	7.808	3	78	3443152	1
>	Ge	72		ug/L			580442	536487 ✓	1
	Ni	60	202.655	ug/L	2.772	1	28	683895	0
	Ni	62	210.430	ug/L	3.782	1	309	99627	2
	Cu	63	200.459	ug/L	3.404	1	301	1508287	0
	Cu	65	196.832	ug/L	3.613	1	43	666826	1
	Zn	66	195.878	ug/L	4.900	2	184	382443	2
	Zn	67	195.671	ug/L	4.147	2	30	64478	1
	Zn	68	200.008	ug/L	5.164	2	181	279471	1
	As	75	203.659	ug/L	2.131	1	180	379268	1
	As-1	75	202.901	ug/L	1.694	0	11796	389026	1
	Se	82	200.190	ug/L	5.331	2	0	38805	1
	Se	78	197.455	ug/L	3.586	1	11951	108875	0
	Mo	98	211.715	ug/L	7.522	3	6	919582	2
	Y	89		ug/L			356764	340795	0
	Kr	83		ug/L			473	752	1
>	In	115		ug/L			987844	944506 ✓	0
	Ag	107	220.060 inc.0	ug/L	3.168	1	15	2471902	1
	Cd	111	198.965	ug/L	3.329	1	64	897175	0
	Cd	114	213.140	ug/L	2.831	1	38	2398318	0
	Sb	121	215.566	ug/L	3.215	1	27	2843546	0
	Sb	123	216.346	ug/L	2.035	0	21	2153868	0
	Ba	135	202.809	ug/L	3.621	1	16	842495	1
	Ba	137	204.417	ug/L	1.311	0	32	1466073	0
>	Tb	159		ug/L			1186851	1158252 ✓	0
	Tl	205	195.015	ug/L	1.317	0	48	6956204	0
	Pb	208	198.579	ug/L	1.211	0	169	8931878	0
	Bi	209		ug/L			2692417	2288990	0
	Th	232	200.242	ug/L	0.643	0	61	8320365	0
	U	238	196.981	ug/L	3.030	1	6	8955647	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:37:30
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	934154 ✓	0
	Be	9	283.913	ug/L	2.285	0	11	869984	1
	C	13		ug/L			80899	87786	1
	Cl	37		ug/L			4140238	4408316	1
>	Sc	45		ug/L			1070141	1025317 ✓	2
	Al	27	S	ug/L	S	S	6167	S	S
	V	51	318.533	ug/L	6.178	1	8787	6203888	1
	V-1	51	312.430	ug/L	5.961	1	45	6102838	1
	Cr	52	319.157	ug/L	6.974	2	25797	5145408	0
	Cr	53	298.427	ug/L	5.725	1	119	549115	0
	Fe	54	29861.057	ug/L	377.581	1	71682	33813031	2
	Fe	57	29281.866	ug/L	1031.821	3	9627	13025827	2
	Mn	55	306.503	ug/L	6.745	2	492	6853963	0
	Co	59	316.181	ug/L	7.505	2	78	5121132	0
>	Ge	72		ug/L			580442	523508 ✓	1
	Ni	60	300.576	ug/L	3.573	1	28	990009	2
	Ni	62	305.812	ug/L	7.730	2	309	141171	3
	Cu	63	320.734	ug/L	0.473	0	301	2355128	1
	Cu	65	293.614	ug/L	3.443	1	43	970786	1
	Zn	66	288.558	ug/L	3.882	1	184	549763	2
	Zn	67	286.012	ug/L	4.058	1	30	91962	0
	Zn	68	283.847	ug/L	6.004	2	181	387026	1
	As	75	300.405	ug/L	2.551	0	180	545858	1
	As-1	75	302.957	ug/L	2.803	0	11796	561594	1
	Se	82	283.681	ug/L	3.476	1	0	53670	0
	Se	78	293.551	ug/L	0.687	0	11951	152726	1
	Mo	98	318.042	ug/L	10.373	3	6	1348113	2
	Y	89		ug/L			356764	328069	2
	Kr	83		ug/L			473	929	3
>	In	115		ug/L			987844	904966 ✓	0
	Ag	107	300.378	ug/L	3.321	1	15	3233062	1
	Cd	111	290.433	ug/L	1.218	0	64	1254869	0
	Cd	114	313.998	ug/L	6.065	1	38	3385174	1
	Sb	121	319.999	ug/L	5.980	1	27	4044663	1
	Sb	123	317.557	ug/L	2.960	0	21	3029144	0
	Ba	135	307.184	ug/L	8.248	2	16	1222597	2
	Ba	137	332.695	ug/L	3.917	1	32	2286159	0
>	Tb	159		ug/L			1186851	1136828 ✓	0
	Tl	205	292.934	ug/L	4.290	1	48	10255923	1
	Pb	208	294.875	ug/L	2.329	0	169	13018243	0
	Bi	209		ug/L			2692417	2123949	5
	Th	232	294.679	ug/L	2.168	0	61	12018113	0
	U	238	288.710	ug/L	2.860	0	6	12883718	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:44:28
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	939840	1
[	Be	9	0.004	ug/L	0.003	82	11	23	42
	C	13		ug/L			80899	83326	0
	Cl	37		ug/L			4140238	4249009	3
[>	Sc	45		ug/L			1070141	1041829	0
[	Al	27	0.572	ug/L	0.126	21	6167	24673	15
[	V	51	0.015	ug/L	0.010	68	8787	8842	1
[	V-1	51	0.014	ug/L	0.003	23	45	314	19
[	Cr	52	0.058	ug/L	0.041	70	25797	26053	1
[	Cr	53	0.054	ug/L	0.014	25	119	216	11
[	Fe	54	1.736	ug/L	0.243	13	71682	71779	0
[	Fe	57	1.185	ug/L	1.103	93	9627	9906	4
[	Mn	55	0.018	ug/L	0.008	44	492	880	20
[	Co	59	0.005	ug/L	0.005	95	78	156	49
[>	Ge	72		ug/L			580442	560210	0
[	Ni	60	0.042	ug/L	0.007	16	28	174	14
[	Ni	62	2.466	ug/L	0.660	26	309	1514	21
[	Cu	63	0.188	ug/L	0.037	19	301	1765	16
[	Cu	65	0.028	ug/L	0.005	17	43	141	12
[	Zn	66	0.714	ug/L	0.045	6	184	1632	5
[	Zn	67	0.645	ug/L	0.033	5	30	251	4
[	Zn	68	0.723	ug/L	0.057	7	181	1229	6
[	As	75	0.023	ug/L	0.024	100	180	219	20
[	As-1	75	0.181	ug/L	0.019	10	11796	11738	0
[	Se	82	0.044	ug/L	0.043	97	0	9	95
[	Se	78	0.638	ug/L	0.114	17	11951	11864	0
[	Mo	98	0.050	ug/L	0.008	16	6	231	16
	Y	89		ug/L			356764	348140	1
	Kr	83		ug/L			473	458	1
[>	In	115		ug/L			987844	973800	1
[	Ag	107	0.008	ug/L	0.004	44	15	112	38
[	Cd	111	0.010	ug/L	0.005	50	64	111	21
[	Cd	114	0.006	ug/L	0.003	47	38	107	30
[	Sb	121	0.314	ug/L	0.031	9	27	4303	10
[	Sb	123	0.313	ug/L	0.032	10	21	3230	10
[	Ba	135	0.012	ug/L	0.003	27	16	65	19
[	Ba	137	0.011	ug/L	0.003	27	32	112	19
[>	Tb	159		ug/L			1186851	1138087	0
[	Tl	205	0.038	ug/L	0.014	36	48	1385	35
[	Pb	208	0.015	ug/L	0.001	6	169	841	5
[	Bi	209		ug/L			2692417	2617159	0
[	Th	232	0.230	ug/L	0.008	3	61	9438	3
[	U	238	0.008	ug/L	0.001	9	6	375	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:50:36
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	940009	1
[	Be	9	0.002	ug/L	0.001	27	11	18	11
	C	13		ug/L			80899	85061	1
	Cl	37		ug/L			4140238	4202432	1
[>	Sc	45		ug/L			1070141	1052990	0
[	Al	27	0.334	ug/L	0.017	5	6167	17096	2
[	V	51	0.012	ug/L	0.014	113	8787	8893	2
[	V-1	51	0.008	ug/L	0.001	10	45	201	8
[	Cr	52	0.059	ug/L	0.055	92	25797	26355	2
[	Cr	53	0.043	ug/L	0.006	14	119	198	5
[	Fe	54	0.651	ug/L	1.281	196	71682	71297	2
[	Fe	57	0.426	ug/L	0.200	46	9627	9668	1
[	Mn	55	0.007	ug/L	0.002	20	492	654	6
[	Co	59	0.001	ug/L	0.001	61	78	91	10
[>	Ge	72		ug/L			580442	558466	1
[	Ni	60	0.046	ug/L	0.005	10	28	189	7
[	Ni	62	0.827	ug/L	0.134	16	309	704	9
[	Cu	63	0.062	ug/L	0.005	8	301	779	4
[	Cu	65	0.015	ug/L	0.003	21	43	95	13
[	Zn	66	0.395	ug/L	0.037	9	184	979	6
[	Zn	67	0.351	ug/L	0.035	10	30	149	7
[	Zn	68	0.388	ug/L	0.015	3	181	738	3
[	As	75	-0.005	ug/L	0.011	205	180	163	11
[	As-1	75	0.209	ug/L	0.101	48	11796	11753	0
[	Se	82	-0.033	ug/L	0.108	325	0	-6	324
[	Se	78	0.809	ug/L	0.409	50	11951	11914	0
[	Mo	98	0.017	ug/L	0.002	9	6	81	9
	Y	89		ug/L			356764	349201	2
	Kr	83		ug/L			473	481	6
[>	In	115		ug/L			987844	968553	0
[	Ag	107	0.003	ug/L	0.001	30	15	45	20
[	Cd	111	0.006	ug/L	0.002	41	64	89	12
[	Cd	114	0.003	ug/L	0.000	13	38	70	5
[	Sb	121	0.091	ug/L	0.013	14	27	1257	14
[	Sb	123	0.092	ug/L	0.014	14	21	958	14
[	Ba	135	0.007	ug/L	0.001	19	16	45	12
[	Ba	137	0.007	ug/L	0.001	10	32	80	6
[>	Tb	159		ug/L			1186851	1141039	0
[	Tl	205	0.021	ug/L	0.010	49	48	785	45
[	Pb	208	0.009	ug/L	0.000	5	169	576	3
[	Bi	209		ug/L			2692417	2610522	0
[	Th	232	0.076	ug/L	0.003	3	61	3157	2
[	U	238	0.002	ug/L	0.000	14	6	88	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:56:14
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	938939	0
	Be	9	0.002	ug/L	0.001	62	11	17	21
	C	13		ug/L			80899	83413	2
	Cl	37		ug/L			4140238	4211670	4
>	Sc	45		ug/L			1070141	1066525	1
	Al	27	0.409	ug/L	0.010	2	6167	19818	2
	V	51	0.004	ug/L	0.015	358	8787	8841	4
	V-1	51	0.006	ug/L	0.001	14	45	168	11
	Cr	52	0.026	ug/L	0.052	202	25797	26141	4
	Cr	53	0.032	ug/L	0.005	14	119	180	5
	Fe	54	0.372	ug/L	2.108	567	71682	71861	2
	Fe	57	0.919	ug/L	1.644	178	9627	10021	7
	Mn	55	0.014	ug/L	0.000	3	492	820	2
	Co	59	0.002	ug/L	0.001	64	78	112	20
>	Ge	72		ug/L			580442	559580	2
	Ni	60	0.052	ug/L	0.003	6	28	209	6
	Ni	62	0.405	ug/L	0.092	22	309	498	10
	Cu	63	0.219	ug/L	0.007	3	301	2012	4
	Cu	65	0.201	ug/L	0.004	1	43	751	1
	Zn	66	0.956	ug/L	0.039	4	184	2121	2
	Zn	67	0.879	ug/L	0.028	3	30	331	2
	Zn	68	0.929	ug/L	0.057	6	181	1526	3
	As	75	0.011	ug/L	0.019	164	180	196	20
	As-1	75	0.156	ug/L	0.142	91	11796	11670	0
	Se	82	0.023	ug/L	0.085	376	0	4	366
	Se	78	0.581	ug/L	0.593	101	11951	11817	0
	Mo	98	0.011	ug/L	0.002	22	6	55	19
	Y	89		ug/L			356764	348692	1
	Kr	83		ug/L			473	468	6
>	In	115		ug/L			987844	980595	1
	Ag	107	0.002	ug/L	0.001	44	15	33	22
	Cd	111	0.006	ug/L	0.003	57	64	90	15
	Cd	114	0.002	ug/L	0.000	8	38	64	2
	Sb	121	0.045	ug/L	0.010	22	27	643	20
	Sb	123	0.047	ug/L	0.009	19	21	501	17
	Ba	135	0.028	ug/L	0.001	2	16	137	3
	Ba	137	0.030	ug/L	0.001	3	32	256	2
>	Tb	159		ug/L			1186851	1143290	0
	Tl	205	0.012	ug/L	0.006	51	48	469	45
	Pb	208	0.020	ug/L	0.000	2	169	1068	2
	Bi	209		ug/L			2692417	2629989	0
	Th	232	0.046	ug/L	0.001	2	61	1933	1
	U	238	0.001	ug/L	0.000	2	6	50	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:00:30
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	956916 ✓	0
[	Be	9	49.610	ug/L	0.473	0	11	155724	0
	C	13		ug/L			80899	81406	4
	Cl	37		ug/L			4140238	4461840	3
[>	Sc	45		ug/L			1070141	1059594 ✓	2
[	Al	27	5005.177	ug/L	202.666	4	6167	166101349	2
[	V	51	48.377	ug/L	2.009	4	8787	980760	2
[	V-1	51	48.344	ug/L	2.025	4	45	975574	2
[	Cr	52	49.690	ug/L	0.985	1	25797	849490	0
[	Cr	53	49.559	ug/L	1.184	2	119	94333	0
[	Fe	54	4949.988	ug/L	188.521	3	71682	5848130	1
[	Fe	57	4950.438	ug/L	183.133	3	9627	2283415	1
[	Mn	55	48.084	ug/L	1.294	2	492	1111539	1
[	Co	59	49.673	ug/L	0.685	1	78	831640	0
[>	Ge	72		ug/L			580442	557505 ✓	1
[	Ni	60	50.459	ug/L	1.175	2	28	176965	1
[	Ni	62	50.292	ug/L	0.814	1	309	24966	0
[	Cu	63	49.964	ug/L	1.250	2	301	390839	0
[	Cu	65	49.229	ug/L	0.617	1	43	173353	1
[	Zn	66	50.937	ug/L	0.344	0	184	103479	1
[	Zn	67	49.743	ug/L	1.104	2	30	17056	1
[	Zn	68	51.082	ug/L	0.749	1	181	74312	1
[	As	75	50.057	ug/L	1.033	2	180	96988	0
[	As-1	75	50.295	ug/L	1.258	2	11796	108712	0
[	Se	82	49.972	ug/L	0.437	0	0	10068	0
[	Se	78	50.856	ug/L	1.241	2	11951	37661	0
[	Mo	98	49.377	ug/L	1.385	2	6	222880	1
	Y	89		ug/L			356764	350385	0
	Kr	83		ug/L			473	514	3
[>	In	115		ug/L			987844	953058 ✓	0
[	Ag	107	49.934	ug/L	0.985	1	15	565994	1
[	Cd	111	50.350	ug/L	0.546	1	64	229162	1
[	Cd	114	50.333	ug/L	0.781	1	38	571585	1
[	Sb	121	49.497	ug/L	0.644	1	27	658892	1
[	Sb	123	49.679	ug/L	0.569	1	21	499102	0
[	Ba	135	49.722	ug/L	0.422	0	16	208454	1
[	Ba	137	49.757	ug/L	0.177	0	32	360122	0
[>	Tb	159		ug/L			1186851	1157255 ✓	0
[	Tl	205	47.655	ug/L	0.290	0	48	1698432	0
[	Pb	208	48.839	ug/L	0.483	0	169	2194910	0
[	Bi	209		ug/L			2692417	2539603	0
[	Th	232	47.492	ug/L	0.360	0	61	1971665	0
[	U	238	50.618	ug/L	0.660	1	6	2299302	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:07:29
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	947009 ✓	0
	Be	9	0.001	ug/L	0.001	141	11	14	28
	C	13		ug/L			80899	82822	1
	Cl	37		ug/L			4140238	4307416	2
>	Sc	45		ug/L			1070141	1065417 ✓	0
	Al	27	0.014	ug/L	0.004	29	6167	6596	1
	V	51	-0.004	ug/L	0.013	307	8787	8661	2
	V-1	51	0.003	ug/L	0.000	11	45	103	7
	Cr	52	-0.004	ug/L	0.045	1055	25797	25608	2
	Cr	53	0.020	ug/L	0.005	23	119	157	5
	Fe	54	-1.906	ug/L	1.753	91	71682	69128	3
	Fe	57	-0.903	ug/L	1.319	146	9627	9164	5
	Mn	55	-0.002	ug/L	0.000	17	492	446	1
	Co	59	-0.000	ug/L	0.001	378	78	74	18
>	Ge	72		ug/L			580442	557345 ✓	0
	Ni	60	0.003	ug/L	0.002	65	28	37	17
	Ni	62	0.321	ug/L	0.070	21	309	455	7
	Cu	63	0.025	ug/L	0.004	16	301	482	7
	Cu	65	0.001	ug/L	0.001	73	43	44	5
	Zn	66	0.006	ug/L	0.009	136	184	189	9
	Zn	67	0.006	ug/L	0.013	201	30	31	14
	Zn	68	0.011	ug/L	0.004	32	181	190	2
	As	75	0.002	ug/L	0.013	617	180	177	14
	As-1	75	0.130	ug/L	0.057	43	11796	11578	0
	Se	82	-0.068	ug/L	0.026	38	0	-13	39
	Se	78	0.475	ug/L	0.188	39	11951	11720	0
	Mo	98	0.014	ug/L	0.002	14	6	68	13
	Y	89		ug/L			356764	345179	2
	Kr	83		ug/L			473	496	0
>	In	115		ug/L			987844	961763 ✓	0
	Ag	107	0.002	ug/L	0.000	24	15	38	14
	Cd	111	0.005	ug/L	0.002	49	64	85	13
	Cd	114	0.001	ug/L	0.001	48	38	49	11
	Sb	121	0.085	ug/L	0.006	7	27	1166	7
	Sb	123	0.083	ug/L	0.007	8	21	865	8
	Ba	135	0.003	ug/L	0.001	39	16	28	17
	Ba	137	0.002	ug/L	0.001	37	32	49	13
>	Tb	159		ug/L			1186851	1138496 ✓	0
	Tl	205	0.011	ug/L	0.005	41	48	445	37
	Pb	208	0.000	ug/L	0.000	125	169	178	10
	Bi	209		ug/L			2692417	2616101	0
	Th	232	0.128	ug/L	0.006	4	61	5268	4
	U	238	0.002	ug/L	0.000	14	6	112	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:12:59
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	952479	0
	Be	9	0.004	ug/L	0.001	33	11	24	17
	C	13		ug/L			80899	88125	2
	Cl	37		ug/L			4140238	4242319	1
>	Sc	45		ug/L			1070141	1071660 ✓	1
	Al	27	0.957	ug/L	0.047	4	6167	38328	4
	V	51	0.015	ug/L	0.005	30	8787	9105	0
	V-1	51	0.009	ug/L	0.000	4	45	228	5
	Cr	52	0.050	ug/L	0.019	38	25797	26673	1
	Cr	53	0.029	ug/L	0.011	38	119	175	12
	Fe	54	13.895	ug/L	2.153	15	71682	88169	1
	Fe	57	1.888	ug/L	1.096	58	9627	10524	6
	Mn	55	0.111	ug/L	0.000	0	492	3089	1
	Co	59	0.004	ug/L	0.000	9	78	141	4
>	Ge	72		ug/L			580442	564788 ✓	1
	Ni	60	0.009	ug/L	0.003	28	28	59	16
	Ni	62	0.161	ug/L	0.079	49	309	381	11
	Cu	63	0.159	ug/L	0.006	3	301	1556	3
	Cu	65	0.157	ug/L	0.016	10	43	603	8
	Zn	66	0.875	ug/L	0.029	3	184	1977	1
	Zn	67	0.795	ug/L	0.065	8	30	305	6
	Zn	68	0.840	ug/L	0.011	1	181	1412	2
	As	75	0.045	ug/L	0.009	19	180	264	5
	As-1	75	0.137	ug/L	0.121	88	11796	11745	0
	Se	82	0.001	ug/L	0.027	2587	0	0	1604
	Se	78	0.387	ug/L	0.464	119	11951	11828	0
	Mo	98	0.020	ug/L	0.003	15	6	95	15
	Y	89		ug/L			356764	354502	2
	Kr	83		ug/L			473	488	2
>	In	115		ug/L			987844	969123	1
	Ag	107	0.005	ug/L	0.004	81	15	75	66
	Cd	111	0.007	ug/L	0.002	26	64	97	9
	Cd	114	0.003	ug/L	0.003	92	38	76	47
	Sb	121	0.039	ug/L	0.004	9	27	549	10
	Sb	123	0.037	ug/L	0.005	14	21	396	15
	Ba	135	0.034	ug/L	0.005	13	16	160	10
	Ba	137	0.036	ug/L	0.001	2	32	298	1
>	Tb	159		ug/L			1186851	1148237	0
	Tl	205	0.026	ug/L	0.013	48	48	967	46
	Pb	208	0.006	ug/L	0.001	15	169	443	9
	Bi	209		ug/L			2692417	2615287	0
	Th	232	0.117	ug/L	0.011	9	61	4887	9
	U	238	0.002	ug/L	0.001	35	6	97	33

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:17:13
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	954764	1
[	Be	9	24.766	ug/L	0.275	1	11	77567	1
	C	13		ug/L			80899	89909	1
	Cl	37		ug/L			4140238	4474851	2
[>	Sc	45		ug/L			1070141	1080914 ✓	0
[	Al	27	5042.650	ug/L	64.502	1	6167	170808406	1
[	V	51	24.989	ug/L	0.471	1	8787	521392	1
[	V-1	51	24.932	ug/L	0.263	1	45	513582	1
[	Cr	52	25.357	ug/L	0.244	0	25797	455097	0
[	Cr	53	25.159	ug/L	0.823	3	119	48928	3
[	Fe	54	4845.050	ug/L	58.222	1	71682	5844247	1
[	Fe	57	5018.085	ug/L	48.896	0	9627	2362317	1
[	Mn	55	24.557	ug/L	0.406	1	492	579546	1
[	Co	59	25.751	ug/L	0.560	2	78	439931	1
[>	Ge	72		ug/L			580442	560883 ✓	1
[	Ni	60	25.863	ug/L	0.592	2	28	91268	0
[	Ni	62	26.729	ug/L	0.572	2	309	13489	0
[	Cu	63	26.030	ug/L	0.510	1	301	205016	0
[	Cu	65	26.541	ug/L	0.397	1	43	94058	2
[	Zn	66	83.189	ug/L	1.871	2	184	169895	1
[	Zn	67	77.985	ug/L	1.479	1	30	26885	0
[	Zn	68	82.212	ug/L	2.377	2	181	120223	2
[	As	75	28.442	ug/L	0.825	2	180	55516	1
[	As-1	75	28.848	ug/L	0.746	2	11796	67594	1
[	Se	82	79.427	ug/L	1.877	2	0	16098	1
[	Se	78	80.634	ug/L	1.680	2	11951	53318	1
[	Mo	98	0.013	ug/L	0.001	7	6	65	5
	Y	89		ug/L			356764	345199	1
	Kr	83		ug/L			473	500	5
[>	In	115		ug/L			987844	959125	0
[	Ag	107	24.930	ug/L	0.194	0	15	284385	1
[	Cd	111	24.801	ug/L	0.334	1	64	113629	1
[	Cd	114	25.128	ug/L	0.461	1	38	287155	1
[	Sb	121	0.028	ug/L	0.004	15	27	406	13
[	Sb	123	0.030	ug/L	0.005	16	21	327	14
[	Ba	135	25.770	ug/L	0.439	1	16	108721	0
[	Ba	137	25.769	ug/L	0.359	1	32	187693	0
[>	Tb	159		ug/L			1186851	1147904	0
[	Tl	205	25.086	ug/L	0.326	1	48	886840	0
[	Pb	208	25.585	ug/L	0.321	1	169	1140636	0
[	Bi	209		ug/L			2692417	2531814	0
[	Th	232	25.213	ug/L	0.475	1	61	1038232	1
[	U	238	24.425	ug/L	0.332	1	6	1100537	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:21:27
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	973406	4
[	Be	9	0.015	ug/L	0.001	9	11	59	5
	C	13		ug/L			80899	106055	0
	Cl	37		ug/L			4140238	5071705	3
[>	Sc	45		ug/L			1070141	1114854	1
|	Al	27	8.857	ug/L	0.079	0	6167	315839	1
|	V	51	1.396	ug/L	0.024	1	8787	38683	1
|	V-1	51	1.567	ug/L	0.026	1	45	33336	0
|	Cr	52	0.439	ug/L	0.013	2	25797	34533	0
|	Cr	53	1.034	ug/L	0.101	9	119	2192	8
|	Fe	54	526.950	ug/L	12.981	2	71682	721964	0
|	Fe	57	518.843	ug/L	6.983	1	9627	260877	0
|	Mn	55	75.242	ug/L	0.468	0	492	1830326	0
[	Co	59	0.490	ug/L	0.015	2	78	8711	3
[>	Ge	72		ug/L			580442	525731	1
|	Ni	60	1.576	ug/L	0.078	4	28	5236	3
|	Ni	62	1.728	ug/L	0.202	11	309	1079	8
|	Cu	63	5.111	ug/L	0.139	2	301	37945	0
|	Cu	65	4.101	ug/L	0.151	3	43	13650	2
|	Zn	66	142.728	ug/L	3.022	2	184	273086	1
|	Zn	67	125.960	ug/L	4.052	3	30	40676	1
|	Zn	68	139.565	ug/L	4.895	3	181	191139	2
|	As	75	112.558	ug/L	3.454	3	180	205421	1
|	As-1	75	112.612	ug/L	3.618	3	11796	216266	1
|	Se	82	0.781	ug/L	0.058	7	0	148	9
|	Se	78	1.567	ug/L	0.634	40	11951	11582	1
[	Mo	98	0.929	ug/L	0.030	3	6	3958	1
	Y	89		ug/L			356764	343621	1
	Kr	83		ug/L			473	501	3
[>	In	115		ug/L			987844	945709	0
|	Ag	107	0.013	ug/L	0.001	11	15	157	9
|	Cd	111	0.014	ug/L	0.006	42	64	124	21
|	Cd	114	0.012	ug/L	0.001	7	38	176	5
|	Sb	121	0.294	ug/L	0.004	1	27	3913	1
|	Sb	123	0.293	ug/L	0.003	0	21	2945	0
|	Ba	135	4.782	ug/L	0.060	1	16	19905	0
[	Ba	137	4.783	ug/L	0.009	0	32	34380	0
[>	Tb	159		ug/L			1186851	1166557	0
|	Tl	205	0.026	ug/L	0.004	16	48	983	15
|	Pb	208	0.110	ug/L	0.003	2	169	5146	1
|	Bi	209		ug/L			2692417	2291083	1
|	Th	232	0.312	ug/L	0.088	28	61	13116	28
[	U	238	0.361	ug/L	0.003	0	6	16548	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:25:42
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	1006245	0
	Be	9	0.003	ug/L	0.001	20	11	23	9
	C	13		ug/L			80899	120941	1
	Cl	37		ug/L			4140238	4934776	2
>	Sc	45		ug/L			1070141	1090318 ✓	0
	Al	27	7.217	ug/L	0.049	0	6167	252862	1
	V	51	0.203	ug/L	0.008	4	8787	13149	1
	V-1	51	0.389	ug/L	0.009	2	45	8136	1
	Cr	52	0.219	ug/L	0.022	10	25797	30030	1
	Cr	53	0.853	ug/L	0.020	2	119	1790	1
	Fe	54	≈ 14.890	ug/L	1.067	7	71682	90929	1
	Fe	57	36.150	ug/L	0.963	2	9627	26905	2
	Mn	55	24.313	ug/L	0.070	0	492	578808	0
	Co	59	0.244	ug/L	0.006	2	78	4287	3
>	Ge	72		ug/L			580442	505513 ✓	1
	Ni	60	1.925	ug/L	0.058	3	28	6144	1
	Ni	62	1.745	ug/L	0.172	9	309	1045	5
	Cu	63	3.398	ug/L	0.081	2	301	24344	1
	Cu	65	2.414	ug/L	0.087	3	43	7740	1
	Zn	66	4.610	ug/L	0.241	5	184	8634	4
	Zn	67	3.779	ug/L	0.141	3	30	1199	2
	Zn	68	5.186	ug/L	0.279	5	181	6980	3
	As	75	4.050	ug/L	0.120	2	180	7258	1
	As-1	75	4.303	ug/L	0.265	6	11796	17825	0
	Se	82	0.698	ug/L	0.104	14	0	127	14
	Se	78	1.822	ug/L	0.610	33	11951	11256	0
	Mo	98	1.659	ug/L	0.021	1	6	6796	2
	Y	89		ug/L			356764	349417	1
	Kr	83		ug/L			473	508	2
>	In	115		ug/L			987844	943526	0
	Ag	107	0.003	ug/L	0.003	86	15	48	59
	Cd	111	0.009	ug/L	0.001	16	64	101	6
	Cd	114	0.005	ug/L	0.004	81	38	89	46
	Sb	121	0.231	ug/L	0.007	3	27	3075	2
	Sb	123	0.232	ug/L	0.009	4	21	2324	3
	Ba	135	1.203	ug/L	0.031	2	16	5006	1
	Ba	137	1.206	ug/L	0.001	0	32	8668	0
>	Tb	159		ug/L			1186851	1161665	1
	Tl	205	0.011	ug/L	0.002	16	48	446	13
	Pb	208	0.046	ug/L	0.001	2	169	2220	2
	Bi	209		ug/L			2692417	2298488	0
	Th	232	0.073	ug/L	0.003	3	61	3091	2
	U	238	0.028	ug/L	0.002	7	6	1276	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ADUP REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:29:56
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\112012.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	1031414	1
[	Be	9	0.002	ug/L	0.001	48	11	20	18
	C	13		ug/L			80899	92478	1
	Cl	37		ug/L			4140238	4422480	1
[>	Sc	45		ug/L			1070141	1055708	2
[	Al	27	0.547	ug/L	0.039	7	6167	24206	7
[	V	51	0.111	ug/L	0.015	13	8787	10888	2
[	V-1	51	0.154	ug/L	0.004	2	45	3150	0
[	Cr	52	0.033	ug/L	0.056	169	25797	25990	2
[	Cr	53	0.182	ug/L	0.016	8	119	462	3
[	Fe	54	2.886	ug/L	2.346	81	71682	74049	3
[	Fe	57	5.975	ug/L	1.536	25	9627	12226	4
[	Mn	55	6.993	ug/L	0.233	3	492	161438	1
[	Co	59	0.053	ug/L	0.001	1	78	956	1
[>	Ge	72		ug/L			580442	543740	2
[	Ni	60	0.145	ug/L	0.002	1	28	523	0
[	Ni	62	0.142	ug/L	0.058	40	309	358	9
[	Cu	63	0.560	ug/L	0.024	4	301	4547	1
[	Cu	65	0.481	ug/L	0.033	6	43	1689	4
[	Zn	66	15.002	ug/L	0.681	4	184	29828	2
[	Zn	67	13.332	ug/L	0.316	2	30	4481	4
[	Zn	68	14.926	ug/L	0.217	1	181	21296	1
[	As	75	9.888	ug/L	0.367	3	180	18813	1
[	As-1	75	9.900	ug/L	0.540	5	11796	29733	1
[	Se	82	0.104	ug/L	0.072	68	0	20	68
[	Se	78	0.236	ug/L	0.646	273	11951	11309	0
[	Mo	98	0.097	ug/L	0.003	2	6	431	2
	Y	89		ug/L			356764	345370	0
	Kr	83		ug/L			473	473	2
[>	In	115		ug/L			987844	982724	0
[	Ag	107	0.004	ug/L	0.005	116	15	61	86
[	Cd	111	0.007	ug/L	0.002	25	64	99	8
[	Cd	114	0.002	ug/L	0.002	79	38	63	29
[	Sb	121	0.037	ug/L	0.004	10	27	539	9
[	Sb	123	0.038	ug/L	0.002	6	21	415	5
[	Ba	135	0.419	ug/L	0.006	1	16	1828	1
[	Ba	137	0.426	ug/L	0.016	3	32	3213	2
[>	Tb	159		ug/L			1186851	1161037	1
[	Tl	205	0.007	ug/L	0.001	14	48	282	11
[	Pb	208	0.006	ug/L	0.001	12	169	418	6
[	Bi	209		ug/L			2692417	2586905	0
[	Th	232	0.010	ug/L	0.002	18	61	495	14
[	U	238	0.036	ug/L	0.002	4	6	1629	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 A REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:34:10
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\112012.cal

dcl

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	1006613	2
	Be	9	0.001	ug/L	0.002	284	11	14	40
	C	13		ug/L			80899	91631	0
	Cl	37		ug/L			4140238	4279259	3
>	Sc	45		ug/L			1070141	1061021	3
	Al	27	0.470	ug/L	0.033	6	6167	21727	1
	V	51	0.104	ug/L	0.026	25	8787	10788	1
	V-1	51	0.153	ug/L	0.007	4	45	3128	1
	Cr	52	-0.006	ug/L	0.081	1429	25797	25456	2
	Cr	53	0.162	ug/L	0.017	10	119	427	4
	Fe	54	0.959	ug/L	2.505	261	71682	72163	3
	Fe	57	6.446	ug/L	0.749	11	9627	12508	2
	Mn	55	6.974	ug/L	0.251	3	492	161794	0
	Co	59	0.052	ug/L	0.005	9	78	951	5
>	Ge	72		ug/L			580442	536595	2
	Ni	60	0.165	ug/L	0.015	9	28	583	6
	Ni	62	0.050	ug/L	0.026	52	309	310	5
	Cu	63	0.526	ug/L	0.011	2	301	4239	1
	Cu	65	0.461	ug/L	0.016	3	43	1602	2
	Zn	66	15.182	ug/L	0.379	2	184	29795	0
	Zn	67	13.291	ug/L	0.596	4	30	4406	3
	Zn	68	15.016	ug/L	0.374	2	181	21139	1
	As	75	10.103	ug/L	0.292	2	180	18970	1
	As-1	75	10.212	ug/L	0.423	4	11796	29929	0
	Se	82	0.072	ug/L	0.060	83	0	13	80
	Se	78	0.604	ug/L	0.607	100	11951	11343	0
	Mo	98	0.101	ug/L	0.003	3	6	445	1
	Y	89		ug/L			356764	344531	1
	Kr	83		ug/L			473	488	3
>	In	115		ug/L			987844	978623	0
	Ag	107	0.001	ug/L	0.000	15	15	24	6
	Cd	111	0.006	ug/L	0.002	27	64	90	8
	Cd	114	0.001	ug/L	0.001	82	38	55	25
	Sb	121	0.034	ug/L	0.002	5	27	493	4
	Sb	123	0.037	ug/L	0.002	6	21	407	5
	Ba	135	0.440	ug/L	0.010	2	16	1908	2
	Ba	137	0.426	ug/L	0.004	0	32	3200	0
>	Tb	159		ug/L			1186851	1149487	0
	Tl	205	0.005	ug/L	0.001	17	48	212	13
	Pb	208	0.005	ug/L	0.000	5	169	379	4
	Bi	209		ug/L			2692417	2587773	0
	Th	232	0.010	ug/L	0.001	11	61	484	10
	U	238	0.036	ug/L	0.000	0	6	1609	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ASPK REN

Sample Dil Factor: 20

Comments:

Sample Date/Time: Tuesday, November 20, 2012 12:38:24

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\112012.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	988849	1
	Be	9	2.472	ug/L	0.100	4	11	8027	2
	C	13		ug/L			80899	88551	1
	Cl	37		ug/L			4140238	4164652	1
>	Sc	45		ug/L			1070141	1060159	0
	Al	27	500.912	ug/L	6.672	1	6167	16647430	1
	V	51	2.471	ug/L	0.049	1	8787	58416	1
	V-1	51	2.521	ug/L	0.052	2	45	50965	2
	Cr	52	2.401	ug/L	0.069	2	25797	65403	1
	Cr	53	2.570	ug/L	0.013	0	119	5007	0
	Fe	54	463.611	ug/L	2.169	0	71682	612695	0
	Fe	57	451.577	ug/L	9.695	2	9627	217173	1
	Mn	55	9.057	ug/L	0.296	3	492	209934	3
	Co	59	2.486	ug/L	0.012	0	78	41729	0
>	Ge	72		ug/L			580442	535840	0
	Ni	60	2.749	ug/L	0.019	0	28	9292	0
	Ni	62	2.600	ug/L	0.022	0	309	1511	1
	Cu	63	3.176	ug/L	0.066	2	301	24144	1
	Cu	65	3.126	ug/L	0.053	1	43	10618	2
	Zn	66	23.080	ug/L	0.499	2	184	45157	1
	Zn	67	20.844	ug/L	0.379	1	30	6886	0
	Zn	68	22.617	ug/L	0.202	0	181	31720	0
	As	75	12.973	ug/L	0.173	1	180	24286	0
	As-1	75	12.968	ug/L	0.240	1	11796	35027	0
	Se	82	8.673	ug/L	0.090	1	0	1679	0
	Se	78	8.704	ug/L	0.310	3	11951	15340	0
	Mo	98	0.094	ug/L	0.002	2	6	414	1
	Y	89		ug/L			356764	347521	1
	Kr	83		ug/L			473	467	3
>	In	115		ug/L			987844	984140	0
	Ag	107	1.010	ug/L	0.007	0	15	11835	0
	Cd	111	2.503	ug/L	0.009	0	64	11825	0
	Cd	114	2.500	ug/L	0.046	1	38	29343	1
	Sb	121	0.034	ug/L	0.003	10	27	499	10
	Sb	123	0.035	ug/L	0.003	7	21	381	7
	Ba	135	2.891	ug/L	0.038	1	16	12530	0
	Ba	137	2.854	ug/L	0.053	1	32	21356	1
>	Tb	159		ug/L			1186851	1150485	1
	Tl	205	2.447	ug/L	0.055	2	48	86727	0
	Pb	208	2.535	ug/L	0.046	1	169	113414	0
	Bi	209		ug/L			2692417	2550607	0
	Th	232	2.311	ug/L	0.070	3	61	95409	2
	U	238	2.372	ug/L	0.057	2	6	107083	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:42:38
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	974940	0
[	Be	9	0.020	ug/L	0.001	3	11	77	3
	C	13		ug/L			80899	123708	1
	Cl	37		ug/L			4140238	4963901	2
[>	Sc	45		ug/L			1070141	1086509✓	0
[	Al	27	3.327	ug/L	0.009	0	6167	119540	0
[	V	51	1.161	ug/L	0.038	3	8787	32845	1
[	V-1	51	1.357	ug/L	0.051	3	45	28128	3
[	Cr	52	0.412	ug/L	0.036	8	25797	33205	2
[	Cr	53	1.089	ug/L	0.017	1	119	2243	0
[	Fe	54	35.473	ug/L	3.076	8	71682	115256	3
[	Fe	57	46.439	ug/L	3.865	8	9627	31651	5
[	Mn	55	63.938	ug/L	0.991	1	492	1516067	2
[	Co	59	0.464	ug/L	0.015	3	78	8050	3
[>	Ge	72		ug/L			580442	502088✓	2
[	Ni	60	1.499	ug/L	0.007	0	28	4758	1
[	Ni	62	1.007	ug/L	0.112	11	309	712	6
[	Cu	63	5.688	ug/L	0.141	2	301	40301	0
[	Cu	65	4.618	ug/L	0.087	1	43	14677	0
[	Zn	66	135.465	ug/L	3.979	2	184	247500	1
[	Zn	67	117.520	ug/L	2.566	2	30	36249	0
[	Zn	68	129.739	ug/L	2.972	2	181	169705	0
[	As	75	96.049	ug/L	1.651	1	180	167454	0
[	As-1	75	96.150	ug/L	1.720	1	11796	177863	0
[	Se	82	0.746	ug/L	0.021	2	0	135	0
[	Se	78	1.710	ug/L	0.323	18	11951	11129	1
[	Mo	98	1.063	ug/L	0.027	2	6	4325	1
	Y	89		ug/L			356764	348035	2
	Kr	83		ug/L			473	520	4
[>	In	115		ug/L			987844	943357	0
[	Ag	107	0.002	ug/L	0.000	17	15	36	10
[	Cd	111	0.006	ug/L	0.004	67	64	88	19
[	Cd	114	0.002	ug/L	0.002	64	38	62	26
[	Sb	121	0.284	ug/L	0.004	1	27	3767	0
[	Sb	123	0.286	ug/L	0.010	3	21	2860	2
[	Ba	135	4.281	ug/L	0.048	1	16	17778	1
[	Ba	137	4.270	ug/L	0.079	1	32	30617	1
[>	Tb	159		ug/L			1186851	1158486	0
[	Tl	205	0.009	ug/L	0.001	13	48	352	11
[	Pb	208	0.039	ug/L	0.001	3	169	1928	2
[	Bi	209		ug/L			2692417	2286535	0
[	Th	232	0.112	ug/L	0.016	13	61	4733	13
[	U	238	0.343	ug/L	0.004	1	6	15590	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:47:56
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	985606	0
[	Be	9	0.013	ug/L	0.001	7	11	54	6
	C	13		ug/L			80899	125245	1
	Cl	37		ug/L			4140238	4787840	3
[>	Sc	45		ug/L			1070141	1046266 ✓	3
	Al	27	3.911	ug/L	0.183	4	6167	134131	1
	V	51	1.209	ug/L	0.072	5	8787	32572	2
	V-1	51	1.397	ug/L	0.070	5	45	27874	2
	Cr	52	0.493	ug/L	0.073	14	25797	33274	0
	Cr	53	1.142	ug/L	0.079	6	119	2257	3
	Fe	54	39.194	ug/L	4.568	11	71682	115165	1
	Fe	57	50.635	ug/L	0.824	1	9627	32383	2
	Mn	55	66.939	ug/L	1.448	2	492	1527808	2
[	Co	59	0.480	ug/L	0.005	1	78	8009	2
[>	Ge	72		ug/L			580442	498401	1
	Ni	60	1.555	ug/L	0.021	1	28	4899	0
	Ni	62	0.919	ug/L	0.048	5	309	669	4
	Cu	63	5.399	ug/L	0.180	3	301	37985	2
	Cu	65	4.341	ug/L	0.101	2	43	13698	1
	Zn	66	134.987	ug/L	0.770	0	184	244911	1
	Zn	67	119.301	ug/L	2.159	1	30	36536	1
	Zn	68	128.338	ug/L	2.244	1	181	166682	1
	As	75	96.564	ug/L	0.759	0	180	167151	0
	As-1	75	96.626	ug/L	0.725	0	11796	177420	0
	Se	82	0.793	ug/L	0.088	11	0	142	10
	Se	78	1.623	ug/L	0.064	3	11951	11009	1
[	Mo	98	1.060	ug/L	0.014	1	6	4283	1
	Y	89		ug/L			356764	337887	0
	Kr	83		ug/L			473	522	3
[>	In	115		ug/L			987844	939870	1
	Ag	107	0.002	ug/L	0.000	12	15	37	7
	Cd	111	0.010	ug/L	0.001	11	64	105	3
	Cd	114	0.003	ug/L	0.000	9	38	72	4
	Sb	121	0.286	ug/L	0.003	0	27	3780	0
	Sb	123	0.285	ug/L	0.008	2	21	2842	3
	Ba	135	4.303	ug/L	0.050	1	16	17802	0
[	Ba	137	4.374	ug/L	0.038	0	32	31247	0
[>	Tb	159		ug/L			1186851	1141213	1
	Tl	205	0.008	ug/L	0.001	15	48	332	12
	Pb	208	0.041	ug/L	0.001	2	169	1963	2
	Bi	209		ug/L			2692417	2296553	0
	Th	232	0.049	ug/L	0.001	2	61	2060	2
[	U	238	0.345	ug/L	0.002	0	6	15444	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:52:10
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	961347	2
[	Be	9	22.629	ug/L	0.614	2	11	71334	0
	C	13		ug/L			80899	100330	3
	Cl	37		ug/L			4140238	4824752	3
[>	Sc	45		ug/L			1070141	1006719 ✓	0
[	Al	27	5095.657	ug/L	80.578	1	6167	160754352	1
[	V	51	25.047	ug/L	0.043	0	8787	486706	0
[	V-1	51	24.964	ug/L	0.144	0	45	478928	0
[	Cr	52	24.690	ug/L	0.850	3	25797	413327	2
[	Cr	53	24.412	ug/L	0.712	2	119	44218	2
[	Fe	54	4662.445	ug/L	101.337	2	71682	5240582	2
[	Fe	57	4336.605	ug/L	125.895	2	9627	1902478	2
[	Mn	55	87.838	ug/L	1.348	1	492	1929473	1
[	Co	59	23.835	ug/L	0.258	1	78	379268	1
[>	Ge	72		ug/L			580442	485155 ✓	0
[	Ni	60	27.439	ug/L	0.216	0	28	83769	0
[	Ni	62	26.305	ug/L	1.045	3	309	11487	3
[	Cu	63	31.450	ug/L	0.088	0	301	214245	0
[	Cu	65	30.321	ug/L	0.501	1	43	92938	1
[	Zn	66	205.145	ug/L	3.002	1	184	362229	1
[	Zn	67	181.842	ug/L	2.914	1	30	54197	1
[	Zn	68	202.323	ug/L	3.738	1	181	255702	1
[	As	75	125.159	ug/L	0.448	0	180	210853	0
[	As-1	75	123.495	ug/L	0.744	0	11796	217993	0
[	Se	82	81.975	ug/L	0.467	0	0	14373	0
[	Se	78	76.053	ug/L	1.459	1	11951	44069	1
[	Mo	98	1.081	ug/L	0.019	1	6	4251	1
	Y	89		ug/L			356764	334568	1
	Kr	83		ug/L			473	566	1
[>	In	115		ug/L			987844	924737	0
[	Ag	107	10.412	ug/L	0.228	2	15	114539	2
[	Cd	111	23.693	ug/L	0.236	0	64	104662	0
[	Cd	114	23.451	ug/L	0.167	0	38	258403	0
[	Sb	121	0.288	ug/L	0.000	0	27	3750	0
[	Sb	123	0.282	ug/L	0.006	2	21	2766	2
[	Ba	135	29.699	ug/L	0.248	0	16	120808	0
[	Ba	137	30.017	ug/L	0.432	1	32	210800	1
[>	Tb	159		ug/L			1186851	1138306	0
[	Tl	205	23.149	ug/L	0.272	1	48	811559	1
[	Pb	208	23.562	ug/L	0.275	1	169	1041664	0
[	Bi	209		ug/L			2692417	2232090	0
[	Th	232	23.694	ug/L	0.132	0	61	967620	0
[	U	238	23.591	ug/L	0.401	1	6	1054066	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:56:26
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	877969 ✓	2
[	Be	9	49.511	ug/L	1.006	2	11	142543	0
	C	13		ug/L			80899	79362	0
	Cl	37		ug/L			4140238	4054642	3
[>	Sc	45		ug/L			1070141	890170 ✓	2
[	Al	27	5606.519	ug/L	73.927	1	6167	156361647	1
[	V	51	48.080	ug/L	1.001	2	8787	819122	1
[	V-1	51	47.977	ug/L	1.018	2	45	813582	1
[	Cr	52	49.404	ug/L	1.955	3	25797	709385	1
[	Cr	53	49.036	ug/L	1.898	3	119	78388	1
[	Fe	54	4981.891	ug/L	102.623	2	71682	4945389	1
[	Fe	57	4795.705	ug/L	248.596	5	9627	1857994	2
[	Mn	55	48.403	ug/L	0.885	1	492	940515	4
[	Co	59	50.720	ug/L	1.952	3	78	713061	1
[>	Ge	72		ug/L			580442	488352 ✓	0
[	Ni	60	49.685	ug/L	1.201	2	28	152664	2
[	Ni	62	49.173	ug/L	0.705	1	309	21392	1
[	Cu	63	49.976	ug/L	1.046	2	301	342531	1
[	Cu	65	49.405	ug/L	1.415	2	43	152413	3
[	Zn	66	49.608	ug/L	1.361	2	184	88287	2
[	Zn	67	48.941	ug/L	1.793	3	30	14702	3
[	Zn	68	51.418	ug/L	0.332	0	181	65530	0
[	As	75	50.947	ug/L	0.356	0	180	86484	0
[	As-1	75	50.218	ug/L	0.209	0	11796	95118	0
[	Se	82	53.488	ug/L	0.484	0	0	9440	0
[	Se	78	50.814	ug/L	0.523	1	11951	32977	0
[	Mo	98	55.375	ug/L	1.104	1	6	219019	1
	Y	89		ug/L			356764	315939	0
	Kr	83		ug/L			473	500	2
[>	In	115		ug/L			987844	924935 ✓	1
[	Ag	107	55.467	ug/L	0.786	1	15	610112	1
[	Cd	111	51.768	ug/L	1.132	2	64	228622	0
[	Cd	114	50.816	ug/L	0.738	1	38	559994	1
[	Sb	121	50.971	ug/L	0.772	1	27	658440	0
[	Sb	123	50.874	ug/L	0.964	1	21	495958	0
[	Ba	135	48.989	ug/L	0.646	1	16	199294	0
[	Ba	137	49.028	ug/L	0.605	1	32	344342	0
[>	Tb	159		ug/L			1186851	1115719 ✓	0
[	Tl	205	46.789	ug/L	0.506	1	48	1607671	0
[	Pb	208	48.492	ug/L	0.480	0	169	2101097	0
[	Bi	209		ug/L			2692417	2436813	1
[	Th	232	46.758	ug/L	0.436	0	61	1871536	0
[	U	238	50.425	ug/L	0.710	1	6	2208245	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:03:25
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	935061 ✓	2
	Be	9	0.000	ug/L	0.002	503	11	12	39
	C	13		ug/L			80899	84476	2
	Cl	37		ug/L			4140238	4284028	6
>	Sc	45		ug/L			1070141	983102 ✓	0
	Al	27	0.087	ug/L	0.077	88	6167	8337	28
	V	51	0.001	ug/L	0.011	1695	8787	8084	2
	V-1	51	0.007	ug/L	0.001	18	45	167	14
	Cr	52	0.012	ug/L	0.036	304	25797	23879	1
	Cr	53	0.032	ug/L	0.004	13	119	166	4
	Fe	54	-1.566	ug/L	1.005	64	71682	64158	2
	Fe	57	0.043	ug/L	0.380	892	9627	8863	2
	Mn	55	-0.000	ug/L	0.002	3443	492	451	8
	Co	59	0.001	ug/L	0.001	204	78	80	22
>	Ge	72		ug/L			580442	517417 ✓	0
	Ni	60	0.000	ug/L	0.001	138	28	27	7
	Ni	62	-0.016	ug/L	0.063	398	309	268	10
	Cu	63	-0.007	ug/L	0.001	13	301	218	2
	Cu	65	0.004	ug/L	0.001	20	43	53	5
	Zn	66	0.018	ug/L	0.005	25	184	198	3
	Zn	67	0.015	ug/L	0.012	80	30	32	11
	Zn	68	0.014	ug/L	0.016	116	181	180	12
	As	75	0.029	ug/L	0.008	28	180	212	6
	As-1	75	0.279	ug/L	0.010	3	11796	11017	0
	Se	82	-0.014	ug/L	0.016	109	0	-2	116
	Se	78	1.011	ug/L	0.037	3	11951	11137	0
	Mo	98	0.009	ug/L	0.001	7	6	42	7
	Y	89		ug/L			356764	323093	1
	Kr	83		ug/L			473	475	1
>	In	115		ug/L			987844	935116 ✓	1
	Ag	107	0.003	ug/L	0.001	29	15	47	19
	Cd	111	0.007	ug/L	0.001	17	64	90	6
	Cd	114	0.001	ug/L	0.001	74	38	45	16
	Sb	121	0.063	ug/L	0.007	10	27	845	9
	Sb	123	0.062	ug/L	0.007	11	21	630	9
	Ba	135	0.005	ug/L	0.001	16	16	35	10
	Ba	137	0.004	ug/L	0.002	36	32	61	19
>	Tb	159		ug/L			1186851	1109629 ✓	0
	Tl	205	0.009	ug/L	0.001	14	48	341	12
	Pb	208	0.001	ug/L	0.001	62	169	216	17
	Bi	209		ug/L			2692417	2545340	0
	Th	232	0.113	ug/L	0.006	5	61	4557	5
	U	238	0.003	ug/L	0.001	29	6	133	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:09:43
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	943427	1
	Be	9	0.008	ug/L	0.002	22	11	37	17
	C	13		ug/L			80899	85191	1
	Cl	37		ug/L			4140238	4404045	2
>	Sc	45		ug/L			1070141	1036177	0
	Al	27	203.244	ug/L	1.178	0	6167	6605256	0
	V	51	0.381	ug/L	0.009	2	8787	15997	1
	V-1	51	0.397	ug/L	0.003	0	45	7889	1
	Cr	52	0.273	ug/L	0.012	4	25797	29405	1
	Cr	53	0.330	ug/L	0.022	6	119	729	4
	Fe	54	263.069	ug/L	4.941	1	71682	369801	0
	Fe	57	255.293	ug/L	6.086	2	9627	124059	2
	Mn	55	10.975	ug/L	0.144	1	492	248541	0
	Co	59	0.096	ug/L	0.003	3	78	1648	3
>	Ge	72		ug/L			580442	534014	1
	Ni	60	0.282	ug/L	0.021	7	28	972	6
	Ni	62	0.194	ug/L	0.041	21	309	376	3
	Cu	63	0.605	ug/L	0.021	3	301	4807	2
	Cu	65	0.604	ug/L	0.025	4	43	2074	2
	Zn	66	9.638	ug/L	0.174	1	184	18892	1
	Zn	67	8.642	ug/L	0.308	3	30	2861	3
	Zn	68	9.368	ug/L	0.124	1	181	13192	1
	As	75	0.440	ug/L	0.018	4	180	980	2
	As-1	75	0.632	ug/L	0.144	22	11796	12022	0
	Se	82	-0.037	ug/L	0.009	23	0	-7	22
	Se	78	0.757	ug/L	0.497	65	11951	11366	0
	Mo	98	0.012	ug/L	0.003	21	6	59	18
	Y	89		ug/L			356764	338232	1
	Kr	83		ug/L			473	480	3
>	In	115		ug/L			987844	965543	0
	Ag	107	0.012	ug/L	0.002	15	15	153	13
	Cd	111	0.224	ug/L	0.004	1	64	1097	1
	Cd	114	0.227	ug/L	0.006	2	38	2649	2
	Sb	121	0.087	ug/L	0.006	6	27	1206	5
	Sb	123	0.087	ug/L	0.001	1	21	908	1
	Ba	135	2.471	ug/L	0.026	1	16	10510	0
	Ba	137	2.471	ug/L	0.024	0	32	18149	0
>	Tb	159		ug/L			1186851	1143740	0
	Tl	205	0.015	ug/L	0.002	12	48	575	11
	Pb	208	11.581	ug/L	0.122	1	169	514501	0
	Bi	209		ug/L			2692417	2620608	0
	Th	232	0.174	ug/L	0.004	2	61	7186	1
	U	238	0.014	ug/L	0.000	2	6	653	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:13:57
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	964019	1
	Be	9	0.039	ug/L	0.005	12	11	135	12
	C	13		ug/L			80899	88248	3
	Cl	37		ug/L			4140238	4275017	1
>	Sc	45		ug/L			1070141	1046148	1
	Al	27	1016.113	ug/L	34.880	3	6167	33311141	2
	V	51	1.868	ug/L	0.020	1	8787	45675	1
	V-1	51	1.896	ug/L	0.041	2	45	37843	1
	Cr	52	1.426	ug/L	0.076	5	25797	48570	3
	Cr	53	1.528	ug/L	0.078	5	119	2983	3
	Fe	54	1326.166	ug/L	15.444	1	71682	1598960	0
	Fe	57	1230.634	ug/L	5.060	0	9627	567787	0
	Mn	55	53.783	ug/L	1.560	2	492	1227687	1
	Co	59	0.455	ug/L	0.007	1	78	7597	2
>	Ge	72		ug/L			580442	544217	1
	Ni	60	1.307	ug/L	0.053	4	28	4501	2
	Ni	62	1.266	ug/L	0.070	5	309	896	3
	Cu	63	2.860	ug/L	0.060	2	301	22107	1
	Cu	65	2.868	ug/L	0.082	2	43	9899	3
	Zn	66	45.315	ug/L	1.446	3	184	89875	2
	Zn	67	41.406	ug/L	0.270	0	30	13865	0
	Zn	68	44.872	ug/L	1.275	2	181	63741	2
	As	75	2.154	ug/L	0.004	0	180	4237	0
	As-1	75	2.230	ug/L	0.072	3	11796	15274	0
	Se	82	0.041	ug/L	0.107	262	0	8	255
	Se	78	0.382	ug/L	0.229	59	11951	11397	0
	Mo	98	0.045	ug/L	0.004	8	6	202	8
	Y	89		ug/L			356764	351960	1
	Kr	83		ug/L			473	475	8
>	In	115		ug/L			987844	979917	0
	Ag	107	0.056	ug/L	0.003	5	15	663	5
	Cd	111	1.094	ug/L	0.007	0	64	5181	0
	Cd	114	1.084	ug/L	0.030	2	38	12691	2
	Sb	121	0.338	ug/L	0.005	1	27	4651	1
	Sb	123	0.350	ug/L	0.012	3	21	3639	3
	Ba	135	11.949	ug/L	0.184	1	16	51514	1
	Ba	137	12.006	ug/L	0.051	0	32	89366	0
>	Tb	159		ug/L			1186851	1147031	0
	Tl	205	0.054	ug/L	0.000	0	48	1936	1
	Pb	208	57.340	ug/L	0.427	0	169	2554272	0
	Bi	209		ug/L			2692417	2638976	1
	Th	232	0.690	ug/L	0.005	0	61	28437	0
	U	238	0.069	ug/L	0.003	3	6	3121	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:18:11
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	983093	0
[	Be	9	0.045	ug/L	0.003	7	11	156	6
	C	13		ug/L			80899	88977	1
	Cl	37		ug/L			4140238	4327403	0
[>	Sc	45		ug/L			1070141	1060071	0
[	Al	27	1018.215	ug/L	5.041	0	6167	33830318	0
[	V	51	1.973	ug/L	0.028	1	8787	48382	0
[	V-1	51	1.980	ug/L	0.027	1	45	40041	0
[	Cr	52	1.527	ug/L	0.050	3	25797	50898	2
[	Cr	53	1.559	ug/L	0.023	1	119	3084	1
[	Fe	54	1369.714	ug/L	5.793	0	71682	1671215	0
[	Fe	57	1300.773	ug/L	21.381	1	9627	607582	1
[	Mn	55	52.390	ug/L	1.260	2	492	1212058	2
[	Co	59	0.456	ug/L	0.016	3	78	7711	3
[>	Ge	72		ug/L			580442	544029	2
[	Ni	60	1.411	ug/L	0.017	1	28	4855	2
[	Ni	62	1.373	ug/L	0.047	3	309	947	3
[	Cu	63	2.931	ug/L	0.079	2	301	22637	1
[	Cu	65	2.899	ug/L	0.052	1	43	9998	1
[	Zn	66	45.296	ug/L	1.672	3	184	89782	2
[	Zn	67	41.017	ug/L	0.578	1	30	13729	1
[	Zn	68	44.173	ug/L	1.829	4	181	62709	2
[	As	75	2.207	ug/L	0.051	2	180	4334	1
[	As-1	75	2.296	ug/L	0.191	8	11796	15390	0
[	Se	82	0.072	ug/L	0.110	152	0	14	152
[	Se	78	0.468	ug/L	0.587	125	11951	11432	0
[	Mo	98	0.047	ug/L	0.004	8	6	214	10
	Y	89		ug/L			356764	353952	2
	Kr	83		ug/L			473	478	9
[>	In	115		ug/L			987844	977953	2
[	Ag	107	0.057	ug/L	0.001	1	15	672	1
[	Cd	111	0.977	ug/L	0.026	2	64	4623	1
[	Cd	114	0.966	ug/L	0.015	1	38	11287	0
[	Sb	121	0.304	ug/L	0.008	2	27	4184	1
[	Sb	123	0.311	ug/L	0.009	2	21	3229	0
[	Ba	135	11.289	ug/L	0.243	2	16	48557	0
[	Ba	137	11.447	ug/L	0.219	1	32	85014	0
[>	Tb	159		ug/L			1186851	1147575	0
[	Tl	205	0.052	ug/L	0.001	2	48	1872	1
[	Pb	208	57.753	ug/L	0.073	0	169	2573898	0
[	Bi	209		ug/L			2692417	2621282	0
[	Th	232	0.586	ug/L	0.013	2	61	24189	2
[	U	238	0.069	ug/L	0.001	1	6	3136	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:22:25
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	982560	1
	Be	9	5.303	ug/L	0.050	0	11	17103	1
	C	13		ug/L			80899	89934	0
	Cl	37		ug/L			4140238	4332940	1
>	Sc	45		ug/L			1070141	1053036	0
	Al	27	1047.642	ug/L	21.485	2	6167	34575893	2
	V	51	7.060	ug/L	0.141	1	8787	149727	2
	V-1	51	7.060	ug/L	0.125	1	45	141726	2
	Cr	52	6.823	ug/L	0.128	1	25797	137861	1
	Cr	53	6.827	ug/L	0.090	1	119	13019	1
	Fe	54	1374.992	ug/L	31.724	2	71682	1666138	1
	Fe	57	1294.647	ug/L	35.457	2	9627	600696	2
	Mn	55	61.542	ug/L	0.960	1	492	1414381	2
	Co	59	5.636	ug/L	0.087	1	78	93865	2
>	Ge	72		ug/L			580442	555201	1
	Ni	60	6.587	ug/L	0.100	1	28	23034	1
	Ni	62	6.578	ug/L	0.263	3	309	3509	2
	Cu	63	7.944	ug/L	0.218	2	301	62125	1
	Cu	65	8.244	ug/L	0.232	2	43	28942	2
	Zn	66	60.563	ug/L	1.320	2	184	122483	1
	Zn	67	55.677	ug/L	1.688	3	30	19006	1
	Zn	68	59.873	ug/L	0.221	0	181	86721	1
	As	75	8.095	ug/L	0.260	3	180	15763	1
	As-1	75	8.000	ug/L	0.381	4	11796	26706	1
	Se	82	17.248	ug/L	0.367	2	0	3460	0
	Se	78	16.832	ug/L	0.979	5	11951	20059	1
	Mo	98	4.787	ug/L	0.083	1	6	21528	1
	Y	89		ug/L			356764	361113	1
	Kr	83		ug/L			473	461	5
>	In	115		ug/L			987844	983332	1
	Ag	107	4.584	ug/L	0.080	1	15	53610	0
	Cd	111	6.127	ug/L	0.073	1	64	28826	1
	Cd	114	6.091	ug/L	0.087	1	38	71389	0
	Sb	121	1.345	ug/L	0.016	1	27	18493	0
	Sb	123	1.350	ug/L	0.019	1	21	14009	0
	Ba	135	16.316	ug/L	0.094	0	16	70583	0
	Ba	137	16.325	ug/L	0.146	0	32	121923	0
>	Tb	159		ug/L			1186851	1149101	0
	Tl	205	4.969	ug/L	0.025	0	48	175893	1
	Pb	208	61.523	ug/L	0.661	1	169	2745439	0
	Bi	209		ug/L			2692417	2635463	0
	Th	232	5.162	ug/L	0.074	1	61	212850	0
	U	238	4.937	ug/L	0.073	1	6	222662	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:26:39
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			960865	984293	2
	Be	**9**	**0.102**	ug/L	0.002	1	11	340	2
	C	**13**		ug/L			80899	96847	0
	Cl	**37**		ug/L			4140238	4211998	2
>	**Sc**	**45**		ug/L			1070141	1074536	1
	Al	**27**	**3528.431**	ug/L	101.745	2	6167	118775682	1
	V	**51**	**3.941**	ug/L	0.034	0	8787	89172	1
	V-1	**51**	**3.973**	ug/L	0.060	1	45	81384	0
	Cr	**52**	**2.297**	ug/L	0.016	0	25797	64535	2
	Cr	**53**	**2.429**	ug/L	0.076	3	119	4802	1
	Fe	**54**	**2432.281**	ug/L	58.435	2	71682	2951733	1
	Fe	**57**	**2302.458**	ug/L	39.719	1	9627	1082519	0
	Mn	**55**	**75.738**	ug/L	1.186	1	492	1775635	1
	Co	**59**	**0.942**	ug/L	0.035	3	78	16072	2
>	**Ge**	**72**		ug/L			580442	555247	2
	Ni	**60**	**2.334**	ug/L	0.038	1	28	8179	1
	Ni	**62**	**2.486**	ug/L	0.023	0	309	1510	2
	Cu	**63**	**8.956**	ug/L	0.136	1	301	70015	0
	Cu	**65**	**8.895**	ug/L	0.281	3	43	31218	1
	Zn	**66**	**106.315**	ug/L	0.738	0	184	214911	1
	Zn	**67**	**97.761**	ug/L	2.207	2	30	33357	2
	Zn	**68**	**104.342**	ug/L	3.040	2	181	150957	0
	As	**75**	**7.154**	ug/L	0.165	2	180	13951	0
	As-1	**75**	**7.140**	ug/L	0.310	4	11796	25048	0
	Se	**82**	**0.107**	ug/L	0.011	9	0	21	11
	Se	**78**	**0.182**	ug/L	0.614	337	11951	11521	0
	Mo	**98**	**0.113**	ug/L	0.011	9	6	513	8
	Y	**89**		ug/L			356764	373626	1
	Kr	**83**		ug/L			473	515	4
>	**In**	**115**		ug/L			987844	982636	0
	Ag	**107**	**0.199**	ug/L	0.000	0	15	2338	1
	Cd	**111**	**2.057**	ug/L	0.008	0	64	9712	1
	Cd	**114**	**2.015**	ug/L	0.053	2	38	23621	1
	Sb	**121**	**0.966**	ug/L	0.022	2	27	13290	2
	Sb	**123**	**0.970**	ug/L	0.018	1	21	10073	2
	Ba	**135**	**33.037**	ug/L	0.315	0	16	142796	0
	Ba	**137**	**32.931**	ug/L	0.451	1	32	245737	0
>	**Tb**	**159**		ug/L			1186851	1139948	0
	Tl	**205**	**0.122**	ug/L	0.004	3	48	4345	3
	Pb	**208**	**179.076**	ug/L	1.147	0	169	7927347	0
	Bi	**209**		ug/L			2692417	2599821	1
	Th	**232**	**0.510**	ug/L	0.009	1	61	20902	1
	U	**238**	**0.168**	ug/L	0.003	1	6	7536	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:30:54
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			960865	971454	0
[	**Be**	**9**	**0.076**	ug/L	0.010	12	11	255	11
	C	**13**		ug/L			80899	91939	1
	Cl	**37**		ug/L			4140238	4246589	2
[>	**Sc**	**45**		ug/L			1070141	1050146	1
[	**Al**	**27**	**2335.579**	ug/L	57.130	2	6167	76851176	1
[	**V**	**51**	**3.818**	ug/L	0.066	1	8787	84687	0
[	**V-1**	**51**	**3.794**	ug/L	0.040	1	45	75957	0
[	**Cr**	**52**	**2.929**	ug/L	0.119	4	25797	73447	1
[	**Cr**	**53**	**2.860**	ug/L	0.092	3	119	5507	3
[	**Fe**	**54**	**2571.684**	ug/L	35.606	1	71682	3046510	1
[	**Fe**	**57**	**2417.083**	ug/L	55.332	2	9627	1110175	1
[	**Mn**	**55**	**124.652**	ug/L	1.707	1	492	2856399	2
[	**Co**	**59**	**1.069**	ug/L	0.019	1	78	17824	2
[>	**Ge**	**72**		ug/L			580442	549194	2
[	**Ni**	**60**	**2.512**	ug/L	0.043	1	28	8703	1
[	**Ni**	**62**	**2.670**	ug/L	0.189	7	309	1581	3
[	**Cu**	**63**	**4.821**	ug/L	0.109	2	301	37406	2
[	**Cu**	**65**	**4.779**	ug/L	0.226	4	43	16602	2
[	**Zn**	**66**	**149.174**	ug/L	2.570	1	184	298135	1
[	**Zn**	**67**	**135.272**	ug/L	8.112	5	30	45596	3
[	**Zn**	**68**	**147.964**	ug/L	4.244	2	181	211632	0
[	**As**	**75**	**3.347**	ug/L	0.095	2	180	6544	0
[	**As-1**	**75**	**3.419**	ug/L	0.238	6	11796	17676	0
[	**Se**	**82**	**0.018**	ug/L	0.028	155	0	3	149
[	**Se**	**78**	**0.419**	ug/L	0.588	140	11951	11514	0
[	**Mo**	**98**	**0.093**	ug/L	0.004	4	6	418	5
	Y	**89**		ug/L			356764	360548	1
	Kr	**83**		ug/L			473	521	0
[>	**In**	**115**		ug/L			987844	963906	1
[	**Ag**	**107**	**0.103**	ug/L	0.004	4	15	1190	4
[	**Cd**	**111**	**2.628**	ug/L	0.064	2	64	12152	0
[	**Cd**	**114**	**2.596**	ug/L	0.052	1	38	29838	0
[	**Sb**	**121**	**0.200**	ug/L	0.012	6	27	2711	4
[	**Sb**	**123**	**0.200**	ug/L	0.013	6	21	2048	4
[	**Ba**	**135**	**36.384**	ug/L	0.418	1	16	154253	0
[	**Ba**	**137**	**36.613**	ug/L	1.085	2	32	267925	1
[>	**Tb**	**159**		ug/L			1186851	1130046	0
[	**Tl**	**205**	**0.105**	ug/L	0.001	1	48	3692	1
[	**Pb**	**208**	**103.876**	ug/L	1.568	1	169	4558354	0
[	**Bi**	**209**		ug/L			2692417	2566656	1
[	**Th**	**232**	**0.774**	ug/L	0.012	1	61	31417	0
[	**U**	**238**	**0.115**	ug/L	0.002	1	6	5106	1

VR34 : 00643

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:36:12
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	975597	0
	Be	9	0.063	ug/L	0.004	7	11	212	7
	C	13		ug/L			80899	93267	3
	Cl	37		ug/L			4140238	4181705	3
>	Sc	45		ug/L			1070141	1057299	0
	Al	27	1967.284	ug/L	52.100	2	6167	65185383	2
	V	51	3.404	ug/L	0.090	2	8787	76966	2
	V-1	51	3.428	ug/L	0.076	2	45	69102	2
	Cr	52	2.469	ug/L	0.058	2	25797	66354	1
	Cr	53	2.564	ug/L	0.099	3	119	4983	4
	Fe	54	2239.135	ug/L	71.360	3	71682	2680129	3
	Fe	57	2105.051	ug/L	32.290	1	9627	974870	1
	Mn	55	97.689	ug/L	2.618	2	492	2253817	3
	Co	59	0.893	ug/L	0.006	0	78	14994	0
>	Ge	72		ug/L			580442	537175	0
	Ni	60	2.401	ug/L	0.061	2	28	8141	2
	Ni	62	2.375	ug/L	0.036	1	309	1409	1
	Cu	63	5.239	ug/L	0.035	0	301	39751	0
	Cu	65	5.289	ug/L	0.043	0	43	17982	0
	Zn	66	128.468	ug/L	2.159	1	184	251224	1
	Zn	67	116.302	ug/L	0.412	0	30	38392	0
	Zn	68	126.981	ug/L	0.606	0	181	177764	0
	As	75	2.303	ug/L	0.047	2	180	4459	1
	As-1	75	2.455	ug/L	0.052	2	11796	15497	0
	Se	82	0.062	ug/L	0.032	51	0	12	51
	Se	78	0.719	ug/L	0.068	9	11951	11417	0
	Mo	98	0.081	ug/L	0.006	7	6	357	7
	Y	89		ug/L			356764	357272	0
	Kr	83		ug/L			473	488	8
>	In	115		ug/L			987844	972584	0
	Ag	107	0.122	ug/L	0.001	0	15	1431	1
	Cd	111	1.971	ug/L	0.017	0	64	9214	1
	Cd	114	1.910	ug/L	0.030	1	38	22168	1
	Sb	121	0.364	ug/L	0.004	1	27	4975	0
	Sb	123	0.358	ug/L	0.006	1	21	3693	1
	Ba	135	30.884	ug/L	0.292	0	16	132125	0
	Ba	137	30.991	ug/L	0.051	0	32	228910	0
>	Tb	159		ug/L			1186851	1125532	0
	Tl	205	0.095	ug/L	0.001	0	48	3326	0
	Pb	208	119.043	ug/L	0.629	0	169	5203358	0
	Bi	209		ug/L			2692417	2579658	0
	Th	232	0.782	ug/L	0.005	0	61	31641	0
	U	238	0.114	ug/L	0.002	1	6	5061	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:40:26
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	973987	1
[	Be	9	0.110	ug/L	0.005	4	11	362	5
	C	13		ug/L			80899	91235	1
	Cl	37		ug/L			4140238	4250461	4
[>	Sc	45		ug/L			1070141	1056582	0
|	Al	27	4069.076	ug/L	37.181	0	6167	134734672	1
|	V	51	4.645	ug/L	0.070	1	8787	101784	1
|	V-1	51	4.633	ug/L	0.093	1	45	93308	1
|	Cr	52	3.058	ug/L	0.071	2	25797	76054	2
|	Cr	53	3.041	ug/L	0.067	2	119	5883	1
|	Fe	54	2859.694	ug/L	68.644	2	71682	3400670	2
|	Fe	57	2698.312	ug/L	12.594	0	9627	1246051	0
|	Mn	55	110.625	ug/L	2.580	2	492	2550236	2
[	Co	59	1.223	ug/L	0.011	0	78	20502	0
[>	Ge	72		ug/L			580442	541520	0
|	Ni	60	3.056	ug/L	0.033	1	28	10438	1
|	Ni	62	3.118	ug/L	0.126	4	309	1774	3
|	Cu	63	6.628	ug/L	0.047	0	301	50621	1
|	Cu	65	6.683	ug/L	0.088	1	43	22895	1
|	Zn	66	107.830	ug/L	0.230	0	184	212600	0
|	Zn	67	98.894	ug/L	1.295	1	30	32915	1
|	Zn	68	106.708	ug/L	0.618	0	181	150619	0
|	As	75	4.889	ug/L	0.042	0	180	9354	1
|	As-1	75	5.023	ug/L	0.050	1	11796	20454	0
|	Se	82	-0.005	ug/L	0.014	252	0	0	297
|	Se	78	0.642	ug/L	0.073	11	11951	11471	0
[	Mo	98	0.083	ug/L	0.003	4	6	370	3
	Y	89		ug/L			356764	362226	2
	Kr	83		ug/L			473	520	3
[>	In	115		ug/L			987844	951095	0
|	Ag	107	0.105	ug/L	0.003	2	15	1207	3
|	Cd	111	1.757	ug/L	0.023	1	64	8040	1
|	Cd	114	1.744	ug/L	0.041	2	38	19803	2
|	Sb	121	0.200	ug/L	0.006	2	27	2681	2
|	Sb	123	0.203	ug/L	0.001	0	21	2052	1
|	Ba	135	33.404	ug/L	0.440	1	16	139748	0
[	Ba	137	33.050	ug/L	0.153	0	32	238719	0
[>	Tb	159		ug/L			1186851	1123484	0
|	Tl	205	0.082	ug/L	0.001	1	48	2879	1
|	Pb	208	73.295	ug/L	0.481	0	169	3197928	0
|	Bi	209		ug/L			2692417	2559432	0
|	Th	232	2.086	ug/L	0.028	1	61	84126	1
[	U	238	0.350	ug/L	0.009	2	6	15418	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:44:40

Pb Zn

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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	971545	2
[	Be	9	0.070	ug/L	0.001	2	11	235	0
	C	13		ug/L			80899	90835	2
	Cl	37		ug/L			4140238	4154260	1
[>	Sc	45		ug/L			1070141	1056117	2
[	Al	27	2164.718	ug/L	70.823	3	6167	71612331	1
[	V	51	3.111	ug/L	0.099	3	8787	70982	1
[	V-1	51	3.122	ug/L	0.091	2	45	62850	1
[	Cr	52	2.364	ug/L	0.117	4	25797	64503	0
[	Cr	53	2.413	ug/L	0.092	3	119	4688	2
[	Fe	54	2226.775	ug/L	51.587	2	71682	2661988	2
[	Fe	57	2117.487	ug/L	97.052	4	9627	978725	2
[	Mn	55	158.732	ug/L	5.883	3	492	3655670	2
[	Co	59	0.905	ug/L	0.022	2	78	15179	2
[>	Ge	72		ug/L			580442	548306	1
[	Ni	60	2.357	ug/L	0.035	1	28	8155	0
[	Ni	62	2.338	ug/L	0.173	7	309	1419	4
[	Cu	63	4.243	ug/L	0.173	4	301	32900	3
[	Cu	65	4.288	ug/L	0.124	2	43	14883	1
[	Zn	66	121.416	ug/L	4.200	3	184	242275	1
[	Zn	67	109.863	ug/L	2.252	2	30	37011	0
[	Zn	68	120.122	ug/L	4.563	3	181	171592	2
[	As	75	4.021	ug/L	0.092	2	180	7819	0
[	As-1	75	3.992	ug/L	0.209	5	11796	18743	0
[	Se	82	0.083	ug/L	0.010	12	0	16	10
[	Se	78	0.043	ug/L	0.493	1149	11951	11308	0
[	Mo	98	0.087	ug/L	0.008	8	6	393	6
	Y	89		ug/L			356764	356992	0
	Kr	83		ug/L			473	481	7
[>	In	115		ug/L			987844	964568	0
[	Ag	107	0.077	ug/L	0.003	4	15	897	4
[	Cd	111	2.326	ug/L	0.011	0	64	10776	0
[	Cd	114	2.338	ug/L	0.010	0	38	26909	0
[	Sb	121	0.143	ug/L	0.002	1	27	1951	1
[	Sb	123	0.141	ug/L	0.004	3	21	1452	2
[	Ba	135	41.186	ug/L	0.256	0	16	174746	0
[	Ba	137	41.412	ug/L	0.401	0	32	303342	0
[>	Tb	159		ug/L			1186851	1131883	0
[	Tl	205	0.082	ug/L	0.000	0	48	2919	0
[	Pb	208	75.075	ug/L	0.593	0	169	3300057	0
[	Bi	209		ug/L			2692417	2574703	0
[	Th	232	0.690	ug/L	0.005	0	61	28055	0
[	U	238	0.099	ug/L	0.001	0	6	4424	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:48:54
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	980283	0
[	Be	9	0.062	ug/L	0.004	6	11	210	6
	C	13		ug/L			80899	92889	0
	Cl	37		ug/L			4140238	4177549	3
[>	Sc	45		ug/L			1070141	1056343	3
[	Al	27	2053.826	ug/L	89.637	4	6167	67933095	1
[	V	51	3.113	ug/L	0.107	3	8787	71015	0
[	V-1	51	3.136	ug/L	0.098	3	45	63131	0
[	Cr	52	1.796	ug/L	0.167	9	25797	55106	2
[	Cr	53	1.895	ug/L	0.119	6	119	3705	2
[	Fe	54	1939.079	ug/L	90.284	4	71682	2325991	1
[	Fe	57	1796.346	ug/L	60.102	3	9627	831987	1
[	Mn	55	107.975	ug/L	5.050	4	492	2486442	2
[	Co	59	0.733	ug/L	0.047	6	78	12296	3
[>	Ge	72		ug/L			580442	539371	0
[	Ni	60	1.850	ug/L	0.021	1	28	6305	1
[	Ni	62	1.900	ug/L	0.138	7	309	1189	6
[	Cu	63	5.148	ug/L	0.205	3	301	39229	4
[	Cu	65	5.268	ug/L	0.012	0	43	17985	0
[	Zn	66	70.840	ug/L	0.575	0	184	139170	0
[	Zn	67	65.300	ug/L	0.929	1	30	21655	1
[	Zn	68	69.716	ug/L	1.095	1	181	98066	0
[	As	75	5.835	ug/L	0.069	1	180	11088	0
[	As-1	75	5.920	ug/L	0.056	0	11796	22053	0
[	Se	82	0.124	ug/L	0.055	44	0	24	43
[	Se	78	0.520	ug/L	0.139	26	11951	11365	1
[	Mo	98	0.092	ug/L	0.005	5	6	405	5
	Y	89		ug/L			356764	355818	0
	Kr	83		ug/L			473	475	4
[>	In	115		ug/L			987844	955427	2
[	Ag	107	0.077	ug/L	0.007	8	15	884	8
[	Cd	111	1.845	ug/L	0.013	0	64	8479	1
[	Cd	114	1.829	ug/L	0.058	3	38	20842	1
[	Sb	121	0.247	ug/L	0.010	3	27	3321	1
[	Sb	123	0.247	ug/L	0.004	1	21	2509	1
[	Ba	135	30.162	ug/L	1.003	3	16	126705	1
[	Ba	137	29.854	ug/L	0.837	2	32	216534	0
[>	Tb	159		ug/L			1186851	1118254	0
[	Tl	205	0.069	ug/L	0.001	0	48	2412	1
[	Pb	208	71.879	ug/L	0.361	0	169	3121541	0
[	Bi	209		ug/L			2692417	2572940	0
[	Th	232	0.613	ug/L	0.015	2	61	24637	1
[	U	238	0.099	ug/L	0.002	1	6	4334	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:53:10
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	933241 ✓	1
[	Be	9	50.445	ug/L	1.655	3	11	154385	1
	C	13		ug/L			80899	83945	2
	Cl	37		ug/L			4140238	4245237	0
[>	Sc	45		ug/L			1070141	1027134 ✓	3
	Al	27	4976.747	ug/L	239.596	4	6167	160004171	1
	V	51	48.802	ug/L	1.530	3	8787	958827	1
	V-1	51	48.371	ug/L	1.515	3	45	946062	1
	Cr	52	49.525	ug/L	1.308	2	25797	820535	1
	Cr	53	48.051	ug/L	1.290	2	119	88638	1
	Fe	54	4920.618	ug/L	133.217	2	71682	5635358	1
	Fe	57	4957.111	ug/L	119.686	2	9627	2216296	1
	Mn	55	47.778	ug/L	1.946	4	492	1070049	1
[	Co	59	49.102	ug/L	2.067	4	78	796360	2
[>	Ge	72		ug/L			580442	537919 ✓	0
	Ni	60	49.499	ug/L	0.480	0	28	167534	0
	Ni	62	49.593	ug/L	0.872	1	309	23762	1
	Cu	63	47.852	ug/L	0.858	1	301	361270	1
	Cu	65	48.773	ug/L	1.259	2	43	165727	2
	Zn	66	50.409	ug/L	0.072	0	184	98819	0
	Zn	67	50.345	ug/L	1.556	3	30	16658	3
	Zn	68	50.253	ug/L	0.673	1	181	70549	1
	As	75	49.750	ug/L	0.591	1	180	93027	1
	As-1	75	49.923	ug/L	0.497	0	11796	104220	0
	Se	82	49.924	ug/L	0.900	1	0	9705	1
	Se	78	50.530	ug/L	0.418	0	11951	36182	0
[	Mo	98	50.273	ug/L	0.467	0	6	219023	0
	Y	89		ug/L			356764	337116	1
	Kr	83		ug/L			473	477	2
[>	In	115		ug/L			987844	932780 ✓	1
	Ag	107	50.044	ug/L	0.514	1	15	555123	0
	Cd	111	50.173	ug/L	0.615	1	64	223480	0
	Cd	114	50.655	ug/L	0.684	1	38	563046	2
	Sb	121	49.857	ug/L	1.016	2	27	649496	1
	Sb	123	50.015	ug/L	0.708	1	21	491754	1
	Ba	135	49.099	ug/L	0.330	0	16	201465	1
[	Ba	137	48.780	ug/L	0.571	1	32	345509	0
[>	Tb	159		ug/L			1186851	1113097 ✓	0
	Tl	205	48.024	ug/L	1.019	2	48	1646141	1
	Pb	208	49.655	ug/L	0.476	0	169	2146428	0
	Bi	209		ug/L			2692417	2455090	0
	Th	232	48.582	ug/L	0.199	0	61	1939989	0
[	U	238	52.259	ug/L	0.837	1	6	2283190	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:00:09
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	901379 ✓	2
[	Be	9	-0.000	ug/L	0.001	182	11	9	26
	C	13		ug/L			80899	82535	4
	Cl	37		ug/L			4140238	4068308	1
[>	Sc	45		ug/L			1070141	979025 ✓	2
	Al	27	0.027	ug/L	0.023	84	6167	6459	10
	V	51	0.005	ug/L	0.017	360	8787	8124	4
	V-1	51	0.001	ug/L	0.000	30	45	61	10
	Cr	52	0.028	ug/L	0.063	221	25797	24038	4
	Cr	53	0.016	ug/L	0.006	39	119	137	9
	Fe	54	1.846	ug/L	1.836	99	71682	67579	4
	Fe	57	1.970	ug/L	1.278	64	9627	9637	3
	Mn	55	-0.002	ug/L	0.002	120	492	414	8
[	Co	59	0.001	ug/L	0.001	93	78	92	20
[>	Ge	72		ug/L			580442	524159 ✓	0
	Ni	60	0.002	ug/L	0.001	43	28	32	8
	Ni	62	-0.177	ug/L	0.056	31	309	198	12
	Cu	63	-0.013	ug/L	0.001	6	301	178	3
	Cu	65	0.001	ug/L	0.001	157	43	41	8
	Zn	66	0.015	ug/L	0.013	89	184	195	13
	Zn	67	0.025	ug/L	0.015	62	30	35	14
	Zn	68	0.017	ug/L	0.018	106	181	187	13
	As	75	0.018	ug/L	0.003	17	180	194	2
	As-1	75	0.236	ug/L	0.063	26	11796	11082	0
	Se	82	-0.038	ug/L	0.047	124	0	-7	126
	Se	78	0.859	ug/L	0.255	29	11951	11208	1
[	Mo	98	0.010	ug/L	0.003	26	6	49	23
	Y	89		ug/L			356764	325640	0
	Kr	83		ug/L			473	475	3
[>	In	115		ug/L			987844	915447 ✓	1
	Ag	107	0.002	ug/L	0.001	35	15	40	22
	Cd	111	0.004	ug/L	0.000	6	64	76	2
	Cd	114	0.000	ug/L	0.000	127	38	38	8
	Sb	121	0.063	ug/L	0.006	9	27	824	8
	Sb	123	0.061	ug/L	0.005	8	21	609	7
	Ba	135	0.003	ug/L	0.002	54	16	28	26
[	Ba	137	0.003	ug/L	0.002	49	32	53	21
[>	Tb	159		ug/L			1186851	1067743 ✓	1
	Tl	205	0.008	ug/L	0.004	46	48	312	39
	Pb	208	0.001	ug/L	0.001	53	169	204	15
	Bi	209		ug/L			2692417	2500954	0
	Th	232	0.092	ug/L	0.004	4	61	3580	5
[	U	238	0.002	ug/L	0.000	2	6	104	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:13:21
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	950914	1
	Be	9	0.057	ug/L	0.006	11	11	188	8
	C	13		ug/L			80899	95376	1
	Cl	37		ug/L			4140238	4237764	1
>	Sc	45		ug/L			1070141	1038876	1
	Al	27	1689.109	ug/L	22.878	1	6167	54991202	1
	V	51	2.625	ug/L	0.016	0	8787	60271	1
	V-1	51	2.634	ug/L	0.018	0	45	52174	1
	Cr	52	1.571	ug/L	0.025	1	25797	50591	2
	Cr	53	1.615	ug/L	0.016	0	119	3127	1
	Fe	54	1660.218	ug/L	19.745	1	71682	1970234	1
	Fe	57	1538.366	ug/L	31.786	2	9627	702400	1
	Mn	55	82.228	ug/L	0.248	0	492	1864081	2
	Co	59	0.604	ug/L	0.017	2	78	9987	1
>	Ge	72		ug/L			580442	538379	1
	Ni	60	1.636	ug/L	0.033	2	28	5565	1
	Ni	62	1.510	ug/L	0.079	5	309	1002	4
	Cu	63	4.671	ug/L	0.072	1	301	35549	1
	Cu	65	4.756	ug/L	0.026	0	43	16210	1
	Zn	66	98.381	ug/L	1.989	2	184	192853	1
	Zn	67	88.208	ug/L	1.526	1	30	29187	0
	Zn	68	95.783	ug/L	3.070	3	181	134408	2
	As	75	4.154	ug/L	0.120	2	180	7927	2
	As-1	75	4.236	ug/L	0.174	4	11796	18864	1
	Se	82	0.124	ug/L	0.022	17	0	24	17
	Se	78	0.498	ug/L	0.224	45	11951	11332	0
	Mo	98	0.090	ug/L	0.004	4	6	396	4
	Y	89		ug/L			356764	353523	0
	Kr	83		ug/L			473	469	1
>	In	115		ug/L			987844	961776	0
	Ag	107	0.143	ug/L	0.004	2	15	1653	1
	Cd	111	2.498	ug/L	0.041	1	64	11532	0
	Cd	114	2.469	ug/L	0.051	2	38	28329	2
	Sb	121	1.433	ug/L	0.008	0	27	19272	1
	Sb	123	1.434	ug/L	0.008	0	21	14559	1
	Ba	135	27.617	ug/L	0.264	0	16	116836	0
	Ba	137	27.598	ug/L	0.371	1	32	201575	0
>	Tb	159		ug/L			1186851	1116734	0
	Tl	205	0.090	ug/L	0.001	1	48	3123	1
	Pb	208	136.218	ug/L	0.653	0	169	5907501	0
	Bi	209		ug/L			2692417	2565246	0
	Th	232	0.445	ug/L	0.009	2	61	17866	1
	U	238	0.092	ug/L	0.002	1	6	4031	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:17:35
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	949435	1
[	Be	9	0.064	ug/L	0.002	2	11	212	1
	C	13		ug/L			80899	90411	1
	Cl	37		ug/L			4140238	4219301	2
[>	Sc	45		ug/L			1070141	1061796	0
[	Al	27	1898.782	ug/L	31.429	1	6167	63184945	1
[	V	51	3.420	ug/L	0.079	2	8787	77604	1
[	V-1	51	3.426	ug/L	0.106	3	45	69363	2
[	Cr	52	2.232	ug/L	0.090	4	25797	62692	2
[	Cr	53	2.272	ug/L	0.052	2	119	4448	2
[	Fe	54	2145.515	ug/L	24.186	1	71682	2581922	1
[	Fe	57	1946.649	ug/L	72.205	3	9627	905890	3
[	Mn	55	127.939	ug/L	1.695	1	492	2964115	1
[	Co	59	0.781	ug/L	0.024	3	78	13190	3
[>	Ge	72		ug/L			580442	545246	1
[	Ni	60	2.095	ug/L	0.047	2	28	7210	1
[	Ni	62	2.093	ug/L	0.121	5	309	1294	3
[	Cu	63	3.262	ug/L	0.073	2	301	25225	1
[	Cu	65	3.294	ug/L	0.051	1	43	11383	0
[	Zn	66	71.988	ug/L	3.844	5	184	142914	4
[	Zn	67	66.551	ug/L	1.599	2	30	22309	2
[	Zn	68	70.917	ug/L	1.614	2	181	100829	1
[	As	75	2.540	ug/L	0.049	1	180	4973	0
[	As-1	75	2.547	ug/L	0.084	3	11796	15904	0
[	Se	82	0.041	ug/L	0.008	18	0	8	17
[	Se	78	0.137	ug/L	0.194	141	11951	11295	0
[	Mo	98	0.078	ug/L	0.002	3	6	351	1
	Y	89		ug/L			356764	356680	0
	Kr	83		ug/L			473	482	2
[>	In	115		ug/L			987844	970823	0
[	Ag	107	0.048	ug/L	0.002	4	15	567	3
[	Cd	111	1.483	ug/L	0.024	1	64	6937	2
[	Cd	114	1.469	ug/L	0.026	1	38	17025	2
[	Sb	121	0.094	ug/L	0.003	3	27	1298	2
[	Sb	123	0.088	ug/L	0.002	2	21	924	1
[	Ba	135	32.552	ug/L	0.941	2	16	139025	3
[	Ba	137	32.650	ug/L	0.145	0	32	240722	0
[>	Tb	159		ug/L			1186851	1126213	0
[	Tl	205	0.073	ug/L	0.003	4	48	2592	3
[	Pb	208	88.898	ug/L	3.400	3	169	3887860	3
[	Bi	209		ug/L			2692417	2607014	0
[	Th	232	0.716	ug/L	0.019	2	61	28975	2
[	U	238	0.094	ug/L	0.002	2	6	4158	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:21:50
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\112012.cal

Pb Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			960865	964431	1
Be	9	0.057	ug/L	0.004	6	11	192	7
C	13		ug/L			80899	93228	0
Cl	37		ug/L			4140238	4190588	2
Sc	45		ug/L			1070141	1036122	1
Al	27	1743.104	ug/L	21.520	1	6167	56597598	0
V	51	4.027	ug/L	0.122	3	8787	87661	1
V-1	51	4.029	ug/L	0.117	2	45	79570	1
Cr	52	2.434	ug/L	0.084	3	25797	64441	1
Cr	53	2.463	ug/L	0.103	4	119	4694	3
Fe	54	2194.107	ug/L	59.966	2	71682	2574676	2
Fe	57	2062.868	ug/L	53.350	2	9627	936259	2
Mn	55	155.291	ug/L	3.915	2	492	3510124	1
Co	59	0.897	ug/L	0.014	1	78	14767	0
Ge	72		ug/L			580442	543955	2
Ni	60	2.124	ug/L	0.011	0	28	7296	1
Ni	62	1.965	ug/L	0.068	3	309	1231	4
Cu	63	5.965	ug/L	0.129	2	301	45776	0
Cu	65	6.069	ug/L	0.139	2	43	20885	2
Zn	66	89.145	ug/L	1.940	2	184	176543	1
Zn	67	81.976	ug/L	0.840	1	30	27415	3
Zn	68	87.819	ug/L	1.922	2	181	124538	2
As	75	3.418	ug/L	0.100	2	180	6618	1
As-1	75	3.493	ug/L	0.196	5	11796	17650	0
Se	82	0.023	ug/L	0.033	142	0	4	139
Se	78	0.438	ug/L	0.486	111	11951	11417	1
Mo	98	0.092	ug/L	0.003	3	6	410	4
Y	89		ug/L			356764	358448	0
Kr	83		ug/L			473	520	1
In	115		ug/L			987844	972281	0
Ag	107	0.139	ug/L	0.003	1	15	1622	2
Cd	111	2.129	ug/L	0.022	1	64	9947	0
Cd	114	2.096	ug/L	0.033	1	38	24315	1
Sb	121	0.288	ug/L	0.006	2	27	3938	2
Sb	123	0.296	ug/L	0.005	1	21	3057	1
Ba	135	24.663	ug/L	0.208	0	16	105489	1
Ba	137	24.709	ug/L	0.328	1	32	182453	0
Tb	159		ug/L			1186851	1119805	0
Tl	205	0.102	ug/L	0.002	2	48	3553	1
Pb	208	147.244	ug/L	0.507	0	169	6403262	0
Bi	209		ug/L			2692417	2602999	0
Th	232	0.490	ug/L	0.001	0	61	19749	0
U	238	0.075	ug/L	0.002	3	6	3315	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:26:04

Pb Zn

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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	965428	1
[	Be	9	0.094	ug/L	0.007	7	11	308	5
	C	13		ug/L			80899	89995	1
	Cl	37		ug/L			4140238	4107383	1
[>	Sc	45		ug/L			1070141	1070264	1
[	Al	27	2793.326	ug/L	48.811	1	6167	93676520	0
[	V	51	4.243	ug/L	0.211	4	8787	94904	3
[	V-1	51	4.287	ug/L	0.192	4	45	87436	3
[	Cr	52	3.077	ug/L	0.112	3	25797	77331	1
[	Cr	53	3.244	ug/L	0.050	1	119	6350	0
[	Fe	54	2954.604	ug/L	90.634	3	71682	3555745	1
[	Fe	57	2742.181	ug/L	68.084	2	9627	1282262	1
[	Mn	55	162.144	ug/L	3.281	2	492	3785508	0
[	Co	59	1.177	ug/L	0.035	2	78	19984	1
[>	Ge	72		ug/L			580442	545911	0
[	Ni	60	3.031	ug/L	0.046	1	28	10435	1
[	Ni	62	2.988	ug/L	0.082	2	309	1726	2
[	Cu	63	4.229	ug/L	0.041	0	301	32661	0
[	Cu	65	4.262	ug/L	0.101	2	43	14735	2
[	Zn	66	84.539	ug/L	1.161	1	184	168068	1
[	Zn	67	77.897	ug/L	1.271	1	30	26141	1
[	Zn	68	84.784	ug/L	1.089	1	181	120678	1
[	As	75	3.748	ug/L	0.040	1	180	7270	0
[	As-1	75	3.780	ug/L	0.045	1	11796	18262	0
[	Se	82	0.057	ug/L	0.073	128	0	11	126
[	Se	78	0.282	ug/L	0.057	20	11951	11382	0
[	Mo	98	0.080	ug/L	0.001	1	6	359	1
	Y	89		ug/L			356764	370587	0
	Kr	83		ug/L			473	504	4
[>	In	115		ug/L			987844	950204	1
[	Ag	107	0.072	ug/L	0.002	2	15	825	1
[	Cd	111	1.575	ug/L	0.051	3	64	7206	2
[	Cd	114	1.571	ug/L	0.036	2	38	17817	1
[	Sb	121	0.054	ug/L	0.004	8	27	739	6
[	Sb	123	0.054	ug/L	0.003	5	21	559	5
[	Ba	135	38.282	ug/L	0.753	1	16	159986	0
[	Ba	137	38.126	ug/L	0.669	1	32	275088	0
[>	Tb	159		ug/L			1186851	1127839	1
[	Tl	205	0.069	ug/L	0.001	1	48	2444	3
[	Pb	208	63.989	ug/L	1.540	2	169	2802109	1
[	Bi	209		ug/L			2692417	2568541	0
[	Th	232	0.929	ug/L	0.026	2	61	37619	1
[	U	238	0.128	ug/L	0.004	3	6	5692	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:30:18
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			960865	966474	0
	Be	**9**	**0.105**	ug/L	0.002	1	11	345	0
	C	**13**		ug/L			80899	94378	0
	Cl	**37**		ug/L			4140238	4204809	1
>	**Sc**	**45**		ug/L			1070141	1056231	1
	Al	**27**	**3363.271**	ug/L	53.430	1	6167	111308990	0
	V	**51**	**5.296**	ug/L	0.048	0	8787	114809	0
	V-1	**51**	**5.332**	ug/L	0.055	1	45	107357	0
	Cr	**52**	**3.246**	ug/L	0.104	3	25797	79131	2
	Cr	**53**	**3.398**	ug/L	0.027	0	119	6558	0
	Fe	**54**	**3246.656**	ug/L	106.915	3	71682	3848864	1
	Fe	**57**	**3110.658**	ug/L	93.045	2	9627	1434171	1
	Mn	**55**	**280.301**	ug/L	2.994	1	492	6459440	2
	Co	**59**	**1.799**	ug/L	0.005	0	78	30104	1
>	**Ge**	**72**		ug/L			580442	541351	3
	Ni	**60**	**3.666**	ug/L	0.144	3	28	12503	0
	Ni	**62**	**3.688**	ug/L	0.039	1	309	2045	3
	Cu	**63**	**8.532**	ug/L	0.441	5	301	65000	2
	Cu	**65**	**8.879**	ug/L	0.165	1	43	30387	2
	Zn	**66**	**185.538**	ug/L	6.843	3	184	365309	0
	Zn	**67**	**172.796**	ug/L	2.721	1	30	57455	1
	Zn	**68**	**183.764**	ug/L	8.665	4	181	258954	2
	As	**75**	**7.475**	ug/L	0.212	2	180	14201	0
	As-1	**75**	**7.536**	ug/L	0.430	5	11796	25157	0
	Se	**82**	**0.115**	ug/L	0.048	41	0	22	43
	Se	**78**	**0.470**	ug/L	0.815	173	11951	11373	0
	Mo	**98**	**0.295**	ug/L	0.016	5	6	1297	3
	Y	**89**		ug/L			356764	364657	2
	Kr	**83**		ug/L			473	502	2
>	**In**	**115**		ug/L			987844	963711	1
	Ag	**107**	**0.153**	ug/L	0.007	4	15	1767	2
	Cd	**111**	**4.173**	ug/L	0.090	2	64	19258	0
	Cd	**114**	**4.188**	ug/L	0.059	1	38	48114	0
	Sb	**121**	**0.154**	ug/L	0.006	3	27	2103	1
	Sb	**123**	**0.156**	ug/L	0.002	1	21	1608	2
	Ba	**135**	**77.859**	ug/L	1.333	1	16	329980	0
	Ba	**137**	**77.800**	ug/L	1.667	2	32	569218	0
>	**Tb**	**159**		ug/L			1186851	1113977	0
	Tl	**205**	**0.175**	ug/L	0.004	2	48	6034	1
	Pb	**208**	**214.421**	ug/L	1.465	0	169	9275805	0
	Bi	**209**		ug/L			2692417	2567126	0
	Th	**232**	**0.795**	ug/L	0.008	1	61	31827	0
	U	**238**	**0.128**	ug/L	0.001	0	6	5609	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:34:32
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: C:\NexION Data\System\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	956956	1
[	Be	9	0.079	ug/L	0.002	1	11	259	1
	C	13		ug/L			80899	94391	1
	Cl	37		ug/L			4140238	4146445	4
[>	Sc	45		ug/L			1070141	1054296	2
[	Al	27	3116.307	ug/L	112.808	3	6167	102896879	1
[	V	51	2.472	ug/L	0.103	4	8787	58078	1
[	V-1	51	2.493	ug/L	0.082	3	45	50097	1
[	Cr	52	2.285	ug/L	0.131	5	25797	63093	1
[	Cr	53	2.357	ug/L	0.072	3	119	4577	2
[	Fe	54	2158.081	ug/L	58.428	2	71682	2576960	0
[	Fe	57	1959.732	ug/L	30.438	1	9627	905389	1
[	Mn	55	225.742	ug/L	6.333	2	492	5189783	0
[	Co	59	0.994	ug/L	0.043	4	78	16632	2
[>	Ge	72		ug/L			580442	532604	0
[	Ni	60	2.239	ug/L	0.088	3	28	7529	3
[	Ni	62	2.117	ug/L	0.074	3	309	1276	2
[	Cu	63	10.072	ug/L	0.174	1	301	75509	1
[	Cu	65	10.025	ug/L	0.105	1	43	33760	0
[	Zn	66	248.697	ug/L	1.777	0	184	482046	0
[	Zn	67	225.776	ug/L	0.981	0	30	73869	0
[	Zn	68	248.191	ug/L	3.151	1	181	344324	0
[	As	75	8.723	ug/L	0.165	1	180	16285	1
[	As-1	75	8.854	ug/L	0.192	2	11796	27205	0
[	Se	82	0.145	ug/L	0.051	35	0	28	35
[	Se	78	0.757	ug/L	0.109	14	11951	11338	0
[	Mo	98	0.153	ug/L	0.003	2	6	664	2
	Y	89		ug/L			356764	360823	2
	Kr	83		ug/L			473	485	3
[>	In	115		ug/L			987844	985157	0
[	Ag	107	0.265	ug/L	0.008	2	15	3122	2
[	Cd	111	4.157	ug/L	0.045	1	64	19615	0
[	Cd	114	4.137	ug/L	0.051	1	38	48593	0
[	Sb	121	0.569	ug/L	0.005	0	27	7863	0
[	Sb	123	0.582	ug/L	0.008	1	21	6067	1
[	Ba	135	82.252	ug/L	0.499	0	16	356417	0
[	Ba	137	82.110	ug/L	1.360	1	32	614239	1
[>	Tb	159		ug/L			1186851	1115359	0
[	Tl	205	0.186	ug/L	0.002	1	48	6421	0
[	Pb	208	267.744	ug/L	3.256	1	169	11596442	0
[	Bi	209		ug/L			2692417	2580182	0
[	Th	232	0.408	ug/L	0.005	1	61	16390	0
[	U	238	0.080	ug/L	0.000	0	6	3497	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:38:46
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	954083	1
	Be	9	0.119	ug/L	0.004	3	11	384	3
	C	13		ug/L			80899	92170	0
	Cl	37		ug/L			4140238	4291060	2
>	Sc	45		ug/L			1070141	1045260	1
	Al	27	3530.150	ug/L	56.159	1	6167	115623761	0
	V	51	4.281	ug/L	0.065	1	8787	93477	0
	V-1	51	4.262	ug/L	0.097	2	45	84926	1
	Cr	52	3.010	ug/L	0.024	0	25797	74444	1
	Cr	53	2.965	ug/L	0.087	2	119	5677	1
	Fe	54	4866.974	ug/L	89.922	1	71682	5676623	2
	Fe	57	4995.756	ug/L	54.951	1	9627	2274269	1
	Mn	55	568.331	ug/L	11.868	2	492	12958380	1
	Co	59	2.497	ug/L	0.031	1	78	41324	1
>	Ge	72		ug/L			580442	543838	1
	Ni	60	10.948	ug/L	0.194	1	28	37484	2
	Ni	62	11.053	ug/L	0.319	2	309	5579	2
	Cu	63	8.322	ug/L	0.121	1	301	63748	0
	Cu	65	8.386	ug/L	0.050	0	43	28844	1
	Zn	66	173.407	ug/L	4.144	2	184	343191	1
	Zn	67	161.731	ug/L	0.944	0	30	54040	1
	Zn	68	171.339	ug/L	1.167	0	181	242771	0
	As	75	5.318	ug/L	0.094	1	180	10203	0
	As-1	75	5.332	ug/L	0.150	2	11796	21124	0
	Se	82	0.132	ug/L	0.101	76	0	25	75
	Se	78	0.299	ug/L	0.367	122	11951	11346	0
	Mo	98	0.733	ug/L	0.024	3	6	3232	3
	Y	89		ug/L			356764	378649	2
	Kr	83		ug/L			473	502	3
>	In	115		ug/L			987844	943052	1
	Ag	107	0.096	ug/L	0.007	7	15	1088	8
	Cd	111	4.596	ug/L	0.051	1	64	20753	0
	Cd	114	4.492	ug/L	0.060	1	38	50500	0
	Sb	121	0.175	ug/L	0.005	2	27	2327	2
	Sb	123	0.178	ug/L	0.004	2	21	1785	2
	Ba	135	93.757	ug/L	0.658	0	16	388903	0
	Ba	137	93.335	ug/L	0.877	0	32	668364	0
>	Tb	159		ug/L			1186851	1102133	0
	Tl	205	0.082	ug/L	0.002	2	48	2834	1
	Pb	208	77.933	ug/L	1.138	1	169	3335416	0
	Bi	209		ug/L			2692417	2550137	0
	Th	232	0.750	ug/L	0.013	1	61	29722	0
	U	238	0.165	ug/L	0.001	0	6	7147	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 N SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:43:00
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\112012.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	959357	0
	Be	9	0.133	ug/L	0.004	2	11	430	1
	C	13		ug/L			80899	94526	0
	Cl	37		ug/L			4140238	4254234	2
>	Sc	45		ug/L			1070141	1038306	0
	Al	27	4113.748	ug/L	40.495	0	6167	133855970	1
	V	51	4.330	ug/L	0.047	1	8787	93832	0
	V-1	51	4.356	ug/L	0.025	0	45	86228	0
	Cr	52	4.108	ug/L	0.112	2	25797	91799	1
	Cr	53	4.199	ug/L	0.142	3	119	7941	3
	Fe	54	5493.394	ug/L	124.438	2	71682	6355559	2
	Fe	57	5621.306	ug/L	135.938	2	9627	2540793	2
	Mn	55	778.176	ug/L	5.763	0	492	17626789	0
	Co	59	2.639	ug/L	0.045	1	78	43374	1
>	Ge	72		ug/L			580442	537760	1
	Ni	60	8.067	ug/L	0.066	0	28	27316	0
	Ni	62	7.895	ug/L	0.278	3	309	4021	1
	Cu	63	7.667	ug/L	0.258	3	301	58086	2
	Cu	65	7.806	ug/L	0.116	1	43	26546	1
	Zn	66	110.277	ug/L	1.824	1	184	215883	0
	Zn	67	103.403	ug/L	3.862	3	30	34165	2
	Zn	68	109.960	ug/L	0.657	0	181	154124	1
	As	75	7.537	ug/L	0.176	2	180	14227	0
	As-1	75	7.567	ug/L	0.263	3	11796	25060	0
	Se	82	0.106	ug/L	0.070	66	0	20	66
	Se	78	0.371	ug/L	0.286	77	11951	11255	0
	Mo	98	0.131	ug/L	0.003	2	6	575	1
	Y	89		ug/L			356764	365600	0
	Kr	83		ug/L			473	514	2
>	In	115		ug/L			987844	943000	1
	Ag	107	0.065	ug/L	0.002	2	15	747	1
	Cd	111	1.789	ug/L	0.056	3	64	8114	1
	Cd	114	1.779	ug/L	0.052	2	38	20016	2
	Sb	121	0.079	ug/L	0.001	1	27	1069	2
	Sb	123	0.079	ug/L	0.006	7	21	806	5
	Ba	135	92.005	ug/L	0.705	0	16	381593	0
	Ba	137	91.301	ug/L	1.783	1	32	653673	0
>	Tb	159		ug/L			1186851	1115491	1
	Tl	205	0.078	ug/L	0.001	1	48	2720	1
	Pb	208	44.967	ug/L	0.689	1	169	1947846	0
	Bi	209		ug/L			2692417	2530168	0
	Th	232	1.428	ug/L	0.024	1	61	57183	0
	U	238	0.164	ug/L	0.004	2	6	7192	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 O SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:48:18
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			960865	955633	2
[	**Be**	**9**	**0.145**	ug/L	0.007	4	11	464	2
	C	**13**		ug/L			80899	90893	1
	Cl	**37**		ug/L			4140238	4174033	3
[>	**Sc**	**45**		ug/L			1070141	1051137	1
[	**Al**	**27**	**4074.041**	ug/L	110.223	2	6167	134155550	0
[	**V**	**51**	**4.596**	ug/L	0.077	1	8787	100280	0
[	**V-1**	**51**	**4.616**	ug/L	0.066	1	45	92474	0
[	**Cr**	**52**	**3.232**	ug/L	0.107	3	25797	78505	0
[	**Cr**	**53**	**3.318**	ug/L	0.073	2	119	6374	1
[	**Fe**	**54**	**5140.108**	ug/L	139.501	2	71682	6022902	0
[	**Fe**	**57**	**5181.090**	ug/L	210.522	4	9627	2370702	3
[	**Mn**	**55**	**477.119**	ug/L	14.441	3	492	10936957	1
[	**Co**	**59**	**2.477**	ug/L	0.040	1	78	41217	0
[>	**Ge**	**72**		ug/L			580442	539645	1
[	**Ni**	**60**	**12.074**	ug/L	0.386	3	28	41000	1
[	**Ni**	**62**	**12.141**	ug/L	0.083	0	309	6052	1
[	**Cu**	**63**	**8.728**	ug/L	0.215	2	301	66319	1
[	**Cu**	**65**	**8.813**	ug/L	0.224	2	43	30072	2
[	**Zn**	**66**	**179.765**	ug/L	4.335	2	184	353039	2
[	**Zn**	**67**	**165.321**	ug/L	3.633	2	30	54824	3
[	**Zn**	**68**	**179.631**	ug/L	3.985	2	181	252504	1
[	**As**	**75**	**6.629**	ug/L	0.119	1	180	12578	1
[	**As-1**	**75**	**6.664**	ug/L	0.233	3	11796	23455	0
[	**Se**	**82**	**0.121**	ug/L	0.009	7	0	23	7
[	**Se**	**78**	**0.374**	ug/L	0.421	112	11951	11295	0
[	**Mo**	**98**	**0.682**	ug/L	0.014	2	6	2986	3
	Y	**89**		ug/L			356764	375599	1
	Kr	**83**		ug/L			473	499	5
[>	**In**	**115**		ug/L			987844	938041	1
[	**Ag**	**107**	**0.095**	ug/L	0.006	5	15	1071	7
[	**Cd**	**111**	**4.445**	ug/L	0.074	1	64	19965	1
[	**Cd**	**114**	**4.432**	ug/L	0.087	1	38	49556	0
[	**Sb**	**121**	**0.103**	ug/L	0.001	0	27	1371	0
[	**Sb**	**123**	**0.108**	ug/L	0.003	2	21	1090	3
[	**Ba**	**135**	**86.715**	ug/L	1.672	1	16	357721	0
[	**Ba**	**137**	**86.951**	ug/L	0.834	0	32	619329	0
[>	**Tb**	**159**		ug/L			1186851	1114546	0
[	**Tl**	**205**	**0.077**	ug/L	0.001	0	48	2700	0
[	**Pb**	**208**	**66.638**	ug/L	0.267	0	169	2884414	0
[	**Bi**	**209**		ug/L			2692417	2518730	1
[	**Th**	**232**	**0.807**	ug/L	0.007	0	61	32305	0
[	**U**	**238**	**0.176**	ug/L	0.001	0	6	7710	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:52:32
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: C:\NexION Data\System\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	933554	1
[	Be	9	0.075	ug/L	0.007	8	11	241	7
	C	13		ug/L			80899	88005	0
	Cl	37		ug/L			4140238	4170687	2
[>	Sc	45		ug/L			1070141	1043906	2
[	Al	27	2073.883	ug/L	22.154	1	6167	67856792	3
[	V	51	4.199	ug/L	0.092	2	8787	91752	3
[	V-1	51	4.210	ug/L	0.099	2	45	83798	3
[	Cr	52	3.079	ug/L	0.052	1	25797	75460	1
[	Cr	53	3.132	ug/L	0.044	1	119	5983	1
[	Fe	54	2414.890	ug/L	43.808	1	71682	2847502	1
[	Fe	57	2247.159	ug/L	35.910	1	9627	1026633	1
[	Mn	55	83.278	ug/L	2.517	3	492	1896057	0
[	Co	59	0.997	ug/L	0.030	3	78	16517	3
[>	Ge	72		ug/L			580442	525667	0
[	Ni	60	2.365	ug/L	0.033	1	28	7845	0
[	Ni	62	2.208	ug/L	0.025	1	309	1301	0
[	Cu	63	4.749	ug/L	0.104	2	301	35280	2
[	Cu	65	4.786	ug/L	0.128	2	43	15927	2
[	Zn	66	103.844	ug/L	1.764	1	184	198753	1
[	Zn	67	92.131	ug/L	1.996	2	30	29770	2
[	Zn	68	102.935	ug/L	2.482	2	181	141055	2
[	As	75	2.110	ug/L	0.034	1	180	4012	1
[	As-1	75	2.286	ug/L	0.080	3	11796	14857	0
[	Se	82	0.036	ug/L	0.013	37	0	7	37
[	Se	78	0.799	ug/L	0.186	23	11951	11210	0
[	Mo	98	0.065	ug/L	0.003	4	6	281	3
	Y	89		ug/L			356764	356414	1
	Kr	83		ug/L			473	487	1
[>	In	115		ug/L			987844	939649	0
[	Ag	107	0.094	ug/L	0.005	4	15	1061	5
[	Cd	111	2.108	ug/L	0.042	2	64	9519	2
[	Cd	114	2.108	ug/L	0.004	0	38	23638	0
[	Sb	121	0.080	ug/L	0.003	4	27	1074	3
[	Sb	123	0.083	ug/L	0.004	5	21	838	5
[	Ba	135	25.025	ug/L	0.320	1	16	103435	0
[	Ba	137	24.837	ug/L	0.358	1	32	177254	1
[>	Tb	159		ug/L			1186851	1086011	2
[	Tl	205	0.081	ug/L	0.001	1	48	2755	2
[	Pb	208	80.003	ug/L	0.076	0	169	3374163	2
[	Bi	209		ug/L			2692417	2507130	2
[	Th	232	0.890	ug/L	0.011	1	61	34707	1
[	U	238	0.259	ug/L	0.002	0	6	11028	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:56:48
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	923538 ✓	1
	Be	9	49.285	ug/L	0.978	1	11	149283	0
	C	13		ug/L			80899	84639	1
	Cl	37		ug/L			4140238	4287530	2
>	Sc	45		ug/L			1070141	1023380 ✓	1
	Al	27	4949.369	ug/L	191.490	3	6167	158681615	2
	V	51	48.184	ug/L	1.106	2	8787	943840	1
	V-1	51	47.786	ug/L	1.363	2	45	931650	1
	Cr	52	48.697	ug/L	0.181	0	25797	804795	1
	Cr	53	47.339	ug/L	1.067	2	119	87043	0
	Fe	54	4962.656	ug/L	35.889	0	71682	5665963	2
	Fe	57	4942.377	ug/L	57.126	1	9627	2202752	1
	Mn	55	46.373	ug/L	1.247	2	492	1035472	1
	Co	59	49.206	ug/L	1.195	2	78	795631	0
>	Ge	72		ug/L			580442	532720 ✓	0
	Ni	60	49.866	ug/L	0.409	0	28	167143	0
	Ni	62	49.148	ug/L	0.595	1	309	23323	0
	Cu	63	49.818	ug/L	0.921	1	301	372483	1
	Cu	65	49.713	ug/L	0.360	0	43	167290	0
	Zn	66	49.229	ug/L	1.018	2	184	95578	2
	Zn	67	50.877	ug/L	0.371	0	30	16671	0
	Zn	68	50.609	ug/L	0.956	1	181	70360	1
	As	75	49.714	ug/L	0.551	1	180	92060	0
	As-1	75	49.925	ug/L	0.470	0	11796	103217	0
	Se	82	50.268	ug/L	0.407	0	0	9678	0
	Se	78	51.034	ug/L	0.092	0	11951	36081	0
	Mo	98	50.446	ug/L	0.879	1	6	217660	2
	Y	89		ug/L			356764	336171	0
	Kr	83		ug/L			473	483	1
>	In	115		ug/L			987844	921560 ✓	1
	Ag	107	50.671	ug/L	1.485	2	15	555197	1
	Cd	111	50.206	ug/L	0.625	1	64	220925	0
	Cd	114	50.439	ug/L	0.492	0	38	553824	1
	Sb	121	49.854	ug/L	0.178	0	27	641739	1
	Sb	123	49.804	ug/L	0.669	1	21	483759	0
	Ba	135	48.983	ug/L	0.701	1	16	198533	0
	Ba	137	49.144	ug/L	0.538	1	32	343899	0
>	Tb	159		ug/L			1186851	1101489 ✓	0
	Tl	205	47.571	ug/L	0.353	0	48	1613738	0
	Pb	208	49.033	ug/L	0.166	0	169	2097585	0
	Bi	209		ug/L			2692417	2447721	0
	Th	232	48.103	ug/L	0.205	0	61	1900868	0
	U	238	52.301	ug/L	0.532	1	6	2261423	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 15:03:47
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	890247 ✓	0
	Be	9	0.000	ug/L	0.002	444	11	12	44
	C	13		ug/L			80899	83767	3
	Cl	37		ug/L			4140238	4124252	1
>	Sc	45		ug/L			1070141	970301 ✓	1
	Al	27	0.043	ug/L	0.030	69	6167	6900	12
	V	51	-0.011	ug/L	0.009	82	8787	7763	0
	V-1	51	0.001	ug/L	0.001	118	45	54	28
	Cr	52	-0.026	ug/L	0.028	105	25797	22988	0
	Cr	53	0.014	ug/L	0.001	9	119	132	2
	Fe	54	0.153	ug/L	1.060	692	71682	65154	1
	Fe	57	1.827	ug/L	1.322	72	9627	9494	5
	Mn	55	-0.000	ug/L	0.001	383	492	442	3
	Co	59	0.001	ug/L	0.000	41	78	87	7
>	Ge	72		ug/L			580442	514768 ✓	2
	Ni	60	0.002	ug/L	0.002	90	28	31	20
	Ni	62	-0.368	ug/L	0.032	8	309	108	13
	Cu	63	-0.021	ug/L	0.000	1	301	117	1
	Cu	65	0.002	ug/L	0.002	107	43	43	10
	Zn	66	0.010	ug/L	0.011	113	184	181	13
	Zn	67	0.002	ug/L	0.017	679	30	28	19
	Zn	68	0.018	ug/L	0.014	77	181	185	7
	As	75	0.018	ug/L	0.001	7	180	191	3
	As-1	75	0.299	ug/L	0.135	45	11796	10992	0
	Se	82	-0.052	ug/L	0.051	96	0	-9	98
	Se	78	1.096	ug/L	0.503	45	11951	11116	0
	Mo	98	0.009	ug/L	0.001	8	6	43	8
	Y	89		ug/L			356764	323402	1
	Kr	83		ug/L			473	476	6
>	In	115		ug/L			987844	913764 ✓	0
	Ag	107	0.003	ug/L	0.003	80	15	52	57
	Cd	111	0.006	ug/L	0.002	32	64	85	10
	Cd	114	0.001	ug/L	0.002	133	38	49	36
	Sb	121	0.063	ug/L	0.004	5	27	826	4
	Sb	123	0.062	ug/L	0.003	4	21	621	4
	Ba	135	0.003	ug/L	0.001	39	16	27	17
	Ba	137	0.003	ug/L	0.001	39	32	49	16
>	Tb	159		ug/L			1186851	1075718 ✓	0
	Tl	205	0.010	ug/L	0.005	53	48	361	47
	Pb	208	0.002	ug/L	0.001	50	169	226	16
	Bi	209		ug/L			2692417	2497740	0
	Th	232	0.106	ug/L	0.004	4	61	4130	4
	U	238	0.002	ug/L	0.000	21	6	94	20

Fmd CLP

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-7-12

Page: 1 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	BNM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.26	Beg in CLP %R=91 ✓
ICB			-0.01	✓
CCV1			3.09	%R=92 ✓
CCB1			-0.00	✓
CRA			0.10	✓
VSTD MB1			0.01	✓
" MB1SPK			1.90	%R=95 ✓
" A			1.08	
" ADUP			1.05	RPD=2.81 ✓
" ASPK			2.04	%R=96 ✓
" B				
" C				
" D				
" E				
CCV2			3.25	%R=91 ✓
CCB2			0.00	✓
VSTD F				DEL CV OUT
" G				
" H				
" I				
" J				
" K				
" L	↓	↓		↓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2310

Standard ID:

Standard: 2992-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 2 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR37 MB1	5mm	1x	0.00	DEL CV out ✓
" MB1SPK			2.04	%R=102 ✓
" A			0.19	
CCV3			1.76	%R=44 LOW X
CCV4			3.63	%R=91 ✓
CCB3			0.00	✓
VS18 F				
" G				
" H				
" I				
" J				
" K				
" L				
VR37 MB1			0.01	✓
" MB1SPK			1.74	%R=87 ✓
" A			0.16	
CCV5			3.59	%R=90 ✓
CCB4			0.00	✓
VR37 ADUP			0.15	✓
" ASPK			1.12	%R=96 ✓
" B				
" C				
" D				
" E				
" F				
" G				
" H				
" I				
CCV6			3.60	%R=90 ✓
CCB5	↓	↓	0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2340

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-7-12

Page: 3 of 10

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VR57	J	SMM	1X			
"	K					
"	L					
"	M					
"	N					
"	O					
VR58	MBI			-0.00		✓
"	MBISPK			1.81	%R=91	✓
"	A			0.11		
"	AOUP			0.10		✓
CCV7				3.64	%R=91	✓
CCB6				0.00		✓
VR58	ASPK			1.07	%R=96	✓
"	B					
"	C					
"	D					
"	E					
"	F					
"	G					
"	H					
"	I					
"	J					
CCV8				3.61	%R=90	✓
CCB7				-0.00		✓
VR82	A					
"	B					
"	C					
"	D					
"	E					
"	F	↓	↓			

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP230

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 4 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR82 G	5MM	1X		
" H				
" I				
CCV9			3.56	%R=89 ✓
CCB8			0.00	✓
VR30 MB1			-0.00	✓
" MB1SPK			1.82	%R=91 ✓
" A			0.92	
" AOUP			0.93	RPD=1.08 ✓
" ASPK			1.78	%R=86 ✓
" B				
" C				
" D				
" E				
" F				
CCV10			3.71	%R=93 ✓
CCB9			-0.00	✓
VR30 G				
" H				
" I				
" J				
" K				
" L				
VR36 MB1			0.00	✓
" MB1SPK			1.89	%R=95 ✓
" A			0.77	
" AOUP			0.74	RPD=3.97 ✓
CCV11			3.72	%R=93 ✓
CCB10			0.00	✓
VR36 ASPK	↓	↓	1.72	%R=95 ✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2092-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 5 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR36 B	SMM	1X		
" C				
" D				
" E				
" F				
" G				
" H				
" I				
" J				
CCV12			3.66	%R=92 ✓
CCB11			-0.00	✓
VR36 K				
" L				
VR35 MB1			0.00	✓
" MB1SPK			1.84	%R=92 ✓
" A			0.34	
" ADUP			0.34	✓
" ASPK			1.29	%R=95 ✓
" B				
" C				
" D				
CCV13			3.61	%R=90 ✓
CCB12			-0.03	✓
VR35 E				
" F				
" G				
" H				
" I				
" J				
" K	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP230

Standard ID:

Standard: 20927

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 6 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR35 L	5mM	1X		
CCV14			3.55	%R=89 ✓
CCB13			-0.00	✓
VR32 MB1			0.01	✓
" MBSPK			1.79	%R=90 ✓
" A			0.47	
" ADUP			0.44	✓
" ASPK			1.37	%R=90 ✓
" B				
" C				
" D				
" E				
" F				
CCV15			3.45	%R=86 ✓
CCB14			-0.00	✓
VR32 G				
" H				
" I				
" J				
" K				
" L				
VR65 MB1			0.03	✓
" MB1SPK			1.74	%R=87 ✓
" A			1.22	
" ADUP			1.18	RPD=3.33 ✓
CCV16			3.54	%R=89 ✓
CCB15			0.00	✓
VR65 ASPK			2.08	%R=86 ✓
" B				
" C	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2310

Standard ID:

Standard: 2992-7

ICV/CCV: SL-K

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 7 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VRL5 D	SMM	1X		
" E				
" F				
" G				
" H				
" I				
" J				
CCV17			3.46	%R=87 ✓
CCB16			0.00	✓
VRL5 K				
" L				
VR38 MB1			0.01	✓
" MB1SPK			1.64	%R=82 ✓
" A			0.02	
" ADUP			0.03	NO RPD: Undetected ✓
" ASPK			0.86	%R=86 ✓
" B				
" C				
" D				
CCV18			3.65	%R=91 ✓
CCB17			0.00	✓
VR38 E				
" F				
" G				
" H				
" I				
" J				
" K				
CCV19 K DM 11-17-12			3.69	%R=92 ✓
CCB18	↓	↓	0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

ICV/CCV: 5L-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 8 of 10

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VR33	MB1	5mm	1x	0.01		√
"	MB1SPK			1.63		√
"	A			1.41		
"	ADUP			1.38	RPD=2.15	√
"	ASPK			2.15	%R=74 LOW	X
"	B					
"	C					
"	D					
"	E					
"	F					
CCV20				3.61	%R=90	√
CCB19				0.00		√
VR33	G					
"	H					
"	I					
"	J					
"	K					
"	L					
VR34	MB1			0.01		√
"	MB1SPK			1.72	%R=86	√
"	A			1.98		
"	ADUP			1.90	RPD=4.12	√
CCV21				3.61	%R=90	√
CCB20				0.03		√
VR34	ASPK			2.87	%R=89	√
"	B					
"	C					
"	D					
"	E					
"	F	↓	↓			

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM
Instrument: CETAC

Date: 11-17-12
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ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR34 G	SnM	1x		
" H				
" I				
" J				
CCV22			3.69	%R=92 ✓
CCB21			0.00	✓
VR34 K				
" L				
VR31 MB1			0.00	✓
" MB1SPK			1.82	%R=91 ✓
" A			0.69	
" ADUP			0.70	RPD=1.43 ✓
" ASPK			1.53	%R=84 ✓
" B				
" C				
" D				
CCV23			3.62	%R=91 ✓
CCB22			0.03	✓
VR31 E				
" F				
" G				
" H				
" I				
" J				
" K				
" L				
CCV24			3.64	%R=91 ✓
CCB23			0.00	ENDCLP ✓
VB28 MB			0.00	✓
" MBSPK	↓	↓	1.73	✓

11/19/12

Chemical/Reagent ID:
10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:
Standard: 2992-7

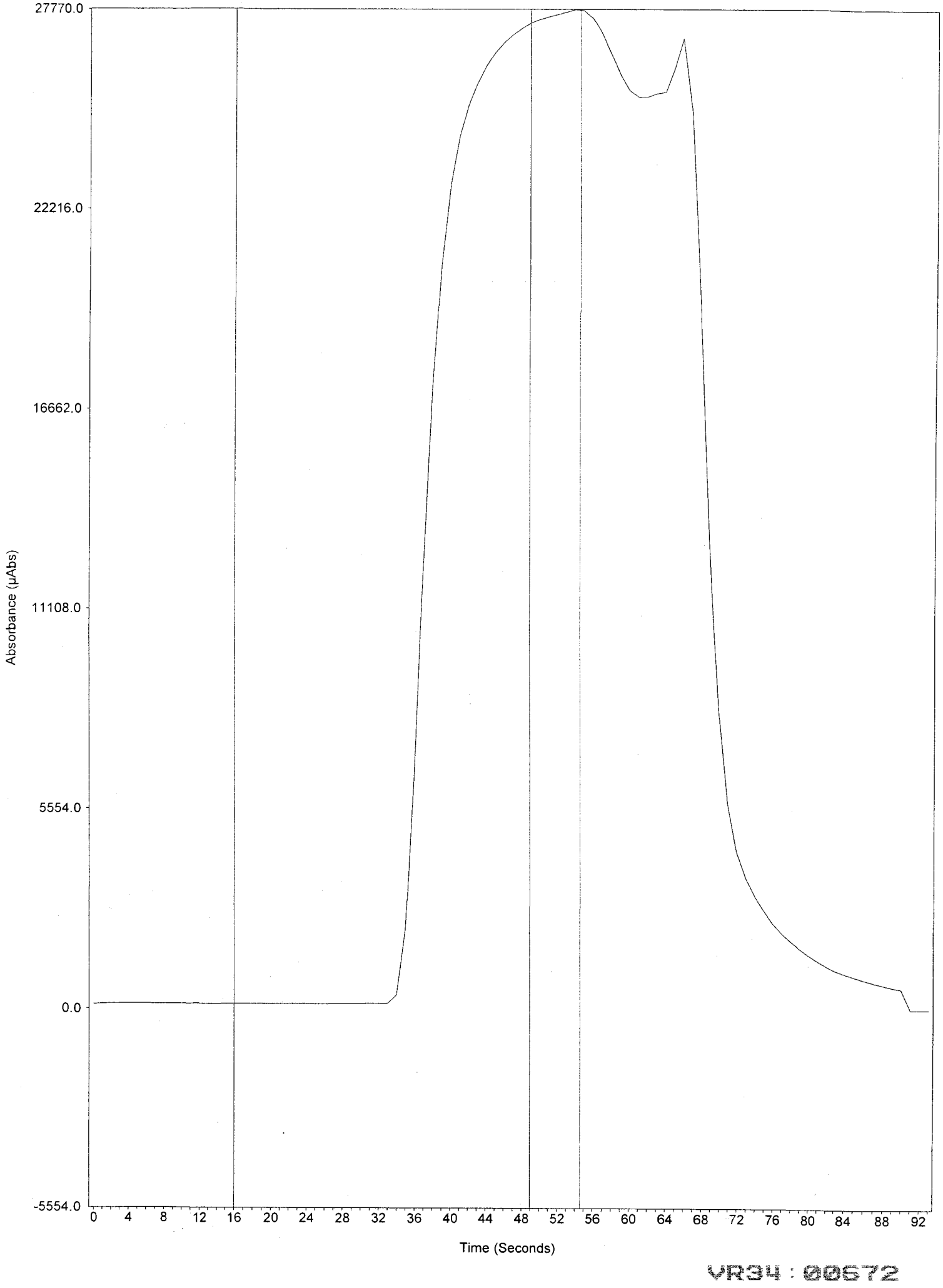
ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) Analysis Date: 11-17-12

	Analyst 11-17 om	Peer #11-19	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 RUN 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	✓	✓	See VR33 ASPK
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	✓	✓	See CAF


27770.0
22216.0
16662.0
11108.0
5554.0
0.0
-5554.0
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)
VR34 : 00672

CETAC Hg Analysis Report - 12111700.DB - Saturday, November 17, 2012, 2:36:51 PM

✓ 11-19-12 AS

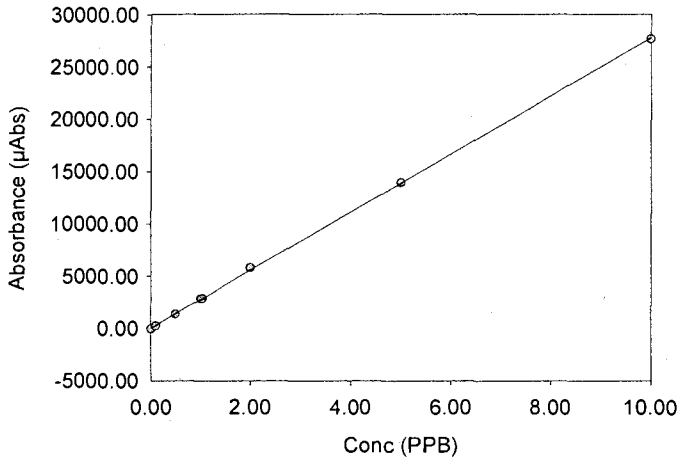
Analyst
Date Started Saturday, November 17, 2012, 06:44:12
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	17-Nov-2012, 06:44	10.00	0.46	27500.00	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	17-Nov-2012, 06:46	0.00	4.58	-33.10	1.00	
Standard #1	17-Nov-2012, 06:47	0.10	0.53	261.00	1.00	
Standard #2	17-Nov-2012, 06:49	0.50	0.24	1400.00	1.00	
Standard #3	17-Nov-2012, 06:51	1.00	0.45	2840.00	1.00	
Standard #4	17-Nov-2012, 06:52	2.00	0.54	5790.00	1.00	
Standard #5	17-Nov-2012, 06:54	5.00	0.29	14000.00	1.00	
Standard #6	17-Nov-2012, 06:56	10.00	0.39	27700.00	1.00	

Calibration Data



Int.	0.000
Slope	2778.015
Correlation	0.99994

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	17-Nov-2012, 07:05	7.26	0.75	20200.00	1.00	
ICB	17-Nov-2012, 07:06	-0.01	13.00	-18.40	1.00	

Bcg: 9 CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:08	3.69	0.28	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:09	-0.00	56.00	-2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	17-Nov-2012, 07:11	0.10	0.42	267.00	1.00	
VS18 MB1 SMM	17-Nov-2012, 07:13	0.01	13.00	20.30	1.00	
VS18 MB1SPK SMM	17-Nov-2012, 07:14	1.90	0.60	5270.00	1.00	
VS18 A SMM	17-Nov-2012, 07:16	1.08	0.64	3000.00	1.00	
VS18 ADUP SMM	17-Nov-2012, 07:17	1.05	0.46	2910.00	1.00	
VS18 ASPK SMM	17-Nov-2012, 07:19	2.04	0.80	5660.00	1.00	
VS18 B SMM	17-Nov-2012, 07:21	0.70	0.68	1940.00	1.00	
VS18 C SMM	17-Nov-2012, 07:22	0.59	0.86	1640.00	1.00	
VS18 D SMM	17-Nov-2012, 07:24	0.77	0.48	2150.00	1.00	
VS18 E SMM	17-Nov-2012, 07:26	0.71	0.45	1970.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:27	3.65	0.49	10100.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 07:29:22
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:29	0.00	11.10	10.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 07:31	0.31	1.08	873.00	1.00	
VS18 G SMM	17-Nov-2012, 07:32	0.25	0.62	691.00	1.00	
VS18 H SMM	17-Nov-2012, 07:34	1.02	1.42	2840.00	1.00	
VS18 I SMM	17-Nov-2012, 07:35	3.94	0.68	10900.00	1.00	
VS18 J SMM	17-Nov-2012, 07:37	2.53	0.19	7030.00	1.00	
VS18 K SMM	17-Nov-2012, 07:38	1.94	0.22	5380.00	1.00	
VS18 L SMM	17-Nov-2012, 07:40	0.88	0.27	2440.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 07:42	0.00	17.70	12.90	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 07:43	2.04	0.47	5660.00	1.00	
VR37 A SMM	17-Nov-2012, 07:45	0.19	0.58	514.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:47	1.76	0.86	4880.00	1.00	Q - Low %R
QC Standard	17-Nov-2012, 07:58	3.63	0.54	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:00	0.00	11.60	11.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 08:02	0.30	0.58	846.00	1.00	
VS18 G SMM	17-Nov-2012, 08:03	0.25	0.72	683.00	1.00	
VS18 H SMM	17-Nov-2012, 08:05	1.00	0.78	2780.00	1.00	
VS18 I SMM	17-Nov-2012, 08:06	3.88	0.67	10800.00	1.00	
VS18 J SMM	17-Nov-2012, 08:08	2.42	0.57	6730.00	1.00	
VS18 K SMM	17-Nov-2012, 08:09	1.81	0.67	5030.00	1.00	
VS18 L SMM	17-Nov-2012, 08:11	0.79	0.94	2190.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 08:13	0.01	4.00	19.20	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 08:14	1.74	0.56	4840.00	1.00	
VR37 A SMM	17-Nov-2012, 08:16	0.16	1.44	442.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:18	3.59	0.50	9980.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:19	0.00	13.00	9.15	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 ADUP SMM	17-Nov-2012, 08:21	0.15	0.54	416.00	1.00	
VR37 ASPK SMM	17-Nov-2012, 08:23	1.12	0.62	3120.00	1.00	
VR37 B SMM	17-Nov-2012, 08:24	0.09	0.36	242.00	1.00	
VR37 C SMM	17-Nov-2012, 08:26	0.28	1.03	768.00	1.00	
VR37 D SMM	17-Nov-2012, 08:27	1.41	0.61	3910.00	1.00	
VR37 E SMM	17-Nov-2012, 08:29	2.23	0.82	6190.00	1.00	
VR37 F SMM	17-Nov-2012, 08:31	0.79	0.67	2210.00	1.00	
VR37 G SMM	17-Nov-2012, 08:32	2.39	0.51	6630.00	1.00	
VR37 H SMM	17-Nov-2012, 08:34	3.87	0.37	10800.00	1.00	
VR37 I SMM	17-Nov-2012, 08:35	0.48	0.20	1340.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:37	3.60	0.66	9990.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:39	0.00	124.00	1.77	1.00	

Analyst
Date Started Saturday, November 17, 2012, 08:40:49
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 J SMM	17-Nov-2012, 08:40	1.27	0.51	3520.00	1.00	
VR37 K SMM	17-Nov-2012, 08:42	1.51	2.55	4190.00	1.00	
VR37 L SMM	17-Nov-2012, 08:44	1.16	0.58	3220.00	1.00	
VR37 M SMM	17-Nov-2012, 08:45	1.05	0.38	2900.00	1.00	
VR37 N SMM	17-Nov-2012, 08:47	1.19	0.74	3310.00	1.00	
VR37 O SMM	17-Nov-2012, 08:48	0.83	0.81	2300.00	1.00	
VR58 MB1 SMM	17-Nov-2012, 08:50	-0.00	33.50	-6.40	1.00	
VR58 MB1SPK SMM	17-Nov-2012, 08:52	1.81	0.54	5040.00	1.00	
VR58 A SMM	17-Nov-2012, 08:53	0.11	0.89	295.00	1.00	
VR58 ADUP SMM	17-Nov-2012, 08:55	0.10	0.57	281.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:56	3.64	0.48	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:58	0.00	9.27	8.18	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR58 ASPK SMM	17-Nov-2012, 09:00	1.07	0.63	2970.00	1.00	
VR58 B SMM	17-Nov-2012, 09:01	0.10	0.59	283.00	1.00	
VR58 C SMM	17-Nov-2012, 09:03	0.11	0.53	309.00	1.00	
VR58 D SMM	17-Nov-2012, 09:05	0.10	0.66	274.00	1.00	
VR58 E SMM	17-Nov-2012, 09:06	0.11	0.48	304.00	1.00	
VR58 F SMM	17-Nov-2012, 09:08	0.41	0.62	1150.00	1.00	
VR58 G SMM	17-Nov-2012, 09:10	0.06	0.39	175.00	1.00	
VR58 H SMM	17-Nov-2012, 09:11	0.06	0.63	161.00	1.00	
VR58 I SMM	17-Nov-2012, 09:13	0.10	1.03	271.00	1.00	
VR58 J SMM	17-Nov-2012, 09:14	0.05	1.41	126.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:16	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:18	-0.00	300.00	-1.14	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR82 A SMM	17-Nov-2012, 09:19	0.22	0.73	605.00	1.00	
VR82 B SMM	17-Nov-2012, 09:21	0.10	2.50	265.00	1.00	
VR82 C SMM	17-Nov-2012, 09:23	0.08	1.51	214.00	1.00	
VR82 D SMM	17-Nov-2012, 09:24	0.11	1.66	312.00	1.00	
VR82 E SMM	17-Nov-2012, 09:26	0.15	0.65	428.00	1.00	
VR82 F SMM	17-Nov-2012, 09:28	0.16	0.78	453.00	1.00	
VR82 G SMM	17-Nov-2012, 09:29	0.13	0.84	355.00	1.00	
VR82 H SMM	17-Nov-2012, 09:31	0.12	0.60	343.00	1.00	
VR82 I SMM	17-Nov-2012, 09:32	0.12	0.86	328.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:34	3.56	0.61	9900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:36	0.00	42.80	6.11	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 MB1 SMM	17-Nov-2012, 09:38	-0.00	64.10	-2.94	1.00	
VR30 MB1SPK SMM	17-Nov-2012, 09:39	1.82	0.61	5060.00	1.00	
VR30 A SMM	17-Nov-2012, 09:41	0.92	0.74	2550.00	1.00	
VR30 ADUP SMM	17-Nov-2012, 09:43	0.93	0.60	2590.00	1.00	
VR30 ASPK SMM	17-Nov-2012, 09:44	1.78	0.74	4940.00	1.00	
VR30 B SMM	17-Nov-2012, 09:46	0.58	0.75	1620.00	1.00	
VR30 C SMM	17-Nov-2012, 09:47	0.68	0.60	1890.00	1.00	
VR30 D SMM	17-Nov-2012, 09:49	0.80	0.75	2230.00	1.00	

CETAC Hg Analysis Report - 12111700.DB - Saturday, November 17, 2012, 2:36:53 PM

Analyst
Date Started Saturday, November 17, 2012, 09:51:06
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 E SMM	17-Nov-2012, 09:51	0.55	0.51	1540.00	1.00	
VR30 F SMM	17-Nov-2012, 09:52	0.67	0.54	1860.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:54	3.71	0.80	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:56	-0.00	235.00	-1.21	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 G SMM	17-Nov-2012, 09:57	0.82	0.55	2280.00	1.00	
VR30 H SMM	17-Nov-2012, 09:59	0.58	0.47	1610.00	1.00	
VR30 I SMM	17-Nov-2012, 10:00	0.60	1.07	1670.00	1.00	
VR30 J SMM	17-Nov-2012, 10:02	0.53	3.49	1480.00	1.00	
VR30 K SMM	17-Nov-2012, 10:04	0.67	0.52	1870.00	1.00	
VR30 L SMM	17-Nov-2012, 10:05	0.81	0.51	2260.00	1.00	
VR36 MB1 SMM	17-Nov-2012, 10:07	0.00	24.00	6.55	1.00	
VR36 MB1SPK SMM	17-Nov-2012, 10:08	1.89	0.89	5240.00	1.00	
VR36 A SMM	17-Nov-2012, 10:10	0.77	0.47	2130.00	1.00	
VR36 ADUP SMM	17-Nov-2012, 10:12	0.74	0.37	2050.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:13	3.72	0.44	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:15	0.00	103.00	2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 ASPK SMM	17-Nov-2012, 10:17	1.72	0.45	4770.00	1.00	
VR36 B SMM	17-Nov-2012, 10:18	2.59	0.47	7210.00	1.00	
VR36 C SMM	17-Nov-2012, 10:20	1.64	0.64	4540.00	1.00	
VR36 D SMM	17-Nov-2012, 10:22	1.79	0.44	4980.00	1.00	
VR36 E SMM	17-Nov-2012, 10:23	0.37	0.51	1040.00	1.00	
VR36 F SMM	17-Nov-2012, 10:25	0.18	0.87	511.00	1.00	
VR36 G SMM	17-Nov-2012, 10:26	0.13	0.85	371.00	1.00	
VR36 H SMM	17-Nov-2012, 10:28	1.34	0.57	3710.00	1.00	
VR36 I SMM	17-Nov-2012, 10:30	1.20	0.50	3330.00	1.00	
VR36 J SMM	17-Nov-2012, 10:31	1.04	0.35	2890.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:33	3.66	0.32	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:34	-0.00	6.61	-7.46	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 K SMM	17-Nov-2012, 10:36	2.70	0.46	7500.00	1.00	
VR36 L SMM	17-Nov-2012, 10:38	0.27	0.35	752.00	1.00	
VR35 MB1 SMM	17-Nov-2012, 10:39	0.00	17.80	8.76	1.00	
VR35 MB1SPK SMM	17-Nov-2012, 10:41	1.84	0.58	5120.00	1.00	
VR35 A SMM	17-Nov-2012, 10:43	0.34	0.50	941.00	1.00	
VR35 ADUP SMM	17-Nov-2012, 10:44	0.34	0.37	935.00	1.00	
VR35 ASPK SMM	17-Nov-2012, 10:46	1.29	0.57	3580.00	1.00	
VR35 B SMM	17-Nov-2012, 10:48	0.42	0.73	1160.00	1.00	
VR35 C SMM	17-Nov-2012, 10:49	0.07	1.65	193.00	1.00	
VR35 D SMM	17-Nov-2012, 10:51	0.06	0.49	162.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 10:52:53
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:52	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:54	-0.03	5.41	-77.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR35 E SMM	17-Nov-2012, 10:56	0.23	0.62	648.00	1.00	
VR35 F SMM	17-Nov-2012, 10:57	1.55	0.66	4300.00	1.00	
VR35 G SMM	17-Nov-2012, 10:59	1.46	0.62	4060.00	1.00	
VR35 H SMM	17-Nov-2012, 11:01	0.41	0.48	1140.00	1.00	
VR35 I SMM	17-Nov-2012, 11:02	1.17	1.09	3260.00	1.00	
VR35 J SMM	17-Nov-2012, 11:04	0.93	0.51	2590.00	1.00	
VR35 K SMM	17-Nov-2012, 11:06	1.11	0.64	3080.00	1.00	
VR35 L SMM	17-Nov-2012, 11:07	1.31	0.58	3630.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:09	3.55	0.50	9850.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:11	-0.00	33.50	-2.69	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 MB1 SMM	17-Nov-2012, 11:13	0.01	3.64	20.40	1.00	
VR32 MB1SPK SMM	17-Nov-2012, 11:14	1.79	0.83	4960.00	1.00	
VR32 A SMM	17-Nov-2012, 11:16	0.47	0.63	1300.00	1.00	
VR32 ADUP SMM	17-Nov-2012, 11:17	0.44	0.66	1220.00	1.00	
VR32 ASPK SMM	17-Nov-2012, 11:19	1.37	0.54	3810.00	1.00	
VR32 B SMM	17-Nov-2012, 11:21	0.82	0.58	2280.00	1.00	
VR32 C SMM	17-Nov-2012, 11:22	0.31	0.79	871.00	1.00	
VR32 D SMM	17-Nov-2012, 11:24	0.43	0.58	1200.00	1.00	
VR32 E SMM	17-Nov-2012, 11:25	0.50	0.71	1390.00	1.00	
VR32 F SMM	17-Nov-2012, 11:27	0.39	0.77	1080.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:29	3.45	0.56	9570.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:30	-0.00	49.10	-3.41	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 G SMM	17-Nov-2012, 11:32	0.31	0.19	870.00	1.00	
VR32 H SMM	17-Nov-2012, 11:34	0.24	0.61	659.00	1.00	
VR32 I SMM	17-Nov-2012, 11:35	0.25	0.45	692.00	1.00	
VR32 J SMM	17-Nov-2012, 11:37	0.17	0.58	483.00	1.00	
VR32 K SMM	17-Nov-2012, 11:38	0.37	0.81	1020.00	1.00	
VR32 L SMM	17-Nov-2012, 11:40	2.05	0.61	5700.00	1.00	
VR65 MB1 SMM	17-Nov-2012, 11:42	0.03	1.01	82.40	1.00	
VR65 MB1SPK SMM	17-Nov-2012, 11:43	1.74	0.69	4820.00	1.00	
VR65 A SMM	17-Nov-2012, 11:45	1.22	0.84	3390.00	1.00	
VR65 ADUP SMM	17-Nov-2012, 11:46	1.18	0.77	3290.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:48	3.54	0.50	9830.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:50	0.00	38.40	2.95	1.00	

Analyst
Date Started Saturday, November 17, 2012, 11:51:52
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR65 ASPK SMM	17-Nov-2012, 11:51	2.08	0.62	5780.00	1.00	
VR65 B SMM	17-Nov-2012, 11:53	1.01	0.72	2810.00	1.00	
VR65 C SMM	17-Nov-2012, 11:55	0.57	0.33	1590.00	1.00	
VR65 D SMM	17-Nov-2012, 11:56	1.38	0.44	3830.00	1.00	
VR65 E SMM	17-Nov-2012, 11:58	0.62	0.57	1710.00	1.00	
VR65 F SMM	17-Nov-2012, 11:59	0.15	0.48	430.00	1.00	
VR65 G SMM	17-Nov-2012, 12:01	0.66	0.75	1850.00	1.00	
VR65 H SMM	17-Nov-2012, 12:03	1.49	0.49	4150.00	1.00	
VR65 I SMM	17-Nov-2012, 12:04	0.94	0.57	2620.00	1.00	
VR65 J SMM	17-Nov-2012, 12:06	0.33	0.59	923.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 12:08	3.46	0.61	9620.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 12:09	0.00	19.40	6.15	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR65 K SMM	17-Nov-2012, 12:11	0.82	0.46	2270.00	1.00	
VR65 L SMM	17-Nov-2012, 12:12	0.01	6.57	28.80	1.00	
VR38 MB1 SMM	17-Nov-2012, 12:14	0.01	9.72	16.80	1.00	
VR38 MB1SPK SMM	17-Nov-2012, 12:16	1.64	0.46	4560.00	1.00	
VR38 A SMM	17-Nov-2012, 12:17	0.02	1.49	62.50	1.00	
VR38 ADUP SMM	17-Nov-2012, 12:19	0.03	4.02	73.90	1.00	
VR38 ASPK SMM	17-Nov-2012, 12:21	0.86	0.81	2400.00	1.00	
VR38 B SMM	17-Nov-2012, 12:22	0.04	2.90	113.00	1.00	
VR38 C SMM	17-Nov-2012, 12:24	0.09	1.73	248.00	1.00	
VR38 D SMM	17-Nov-2012, 12:25	0.62	0.51	1720.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 12:27	3.65	0.73	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 12:29	0.00	34.90	3.76	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR38 E SMM	17-Nov-2012, 12:30	0.03	1.86	89.20	1.00	
VR38 F SMM	17-Nov-2012, 12:32	0.06	0.77	165.00	1.00	
VR38 G SMM	17-Nov-2012, 12:34	0.07	0.74	181.00	1.00	
VR38 H SMM	17-Nov-2012, 12:35	0.04	2.13	112.00	1.00	
VR38 I SMM	17-Nov-2012, 12:37	0.04	2.85	103.00	1.00	
VR38 J SMM	17-Nov-2012, 12:39	0.08	1.09	209.00	1.00	
VR38 K SMM	17-Nov-2012, 12:40	0.05	1.89	137.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 12:42	3.69	0.38	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 12:44	0.00	13.10	11.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR33 MB1 SMM	17-Nov-2012, 12:46	0.01	6.76	21.20	1.00	
VR33 MB1SPK SMM	17-Nov-2012, 12:48	1.83	0.58	5070.00	1.00	
VR33 A SMM	17-Nov-2012, 12:49	1.41	0.59	3920.00	1.00	
VR33 ADUP SMM	17-Nov-2012, 12:51	1.38	0.56	3820.00	1.00	
VR33 ASPK SMM	17-Nov-2012, 12:52	2.15	0.53	5980.00	1.00	- LOW %R
VR33 B SMM	17-Nov-2012, 12:54	0.73	0.47	2030.00	1.00	
VR33 C SMM	17-Nov-2012, 12:55	1.77	0.52	4930.00	1.00	
VR33 D SMM	17-Nov-2012, 12:57	0.79	0.75	2190.00	1.00	
VR33 E SMM	17-Nov-2012, 12:59	0.96	0.59	2680.00	1.00	
VR33 F SMM	17-Nov-2012, 13:00	0.51	0.95	1420.00	1.00	

VR34 : 00678

Analyst
Date Started Saturday, November 17, 2012, 13:02:29
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 13:02	3.61	0.72	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 13:04	0.00	67.40	2.71	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR33 G SMM	17-Nov-2012, 13:05	0.17	0.17	483.00	1.00	
VR33 H SMM	17-Nov-2012, 13:07	0.13	0.37	359.00	1.00	
VR33 I SMM	17-Nov-2012, 13:09	0.71	0.50	1960.00	1.00	
VR33 J SMM	17-Nov-2012, 13:10	1.13	0.60	3150.00	1.00	
VR33 K SMM	17-Nov-2012, 13:12	1.02	0.57	2830.00	1.00	
VR33 L SMM	17-Nov-2012, 13:13	0.55	0.33	1530.00	1.00	
VR34 MB1 SMM	17-Nov-2012, 13:15	0.01	6.11	19.70	1.00	
VR34 MB1SPK SMM	17-Nov-2012, 13:17	1.72	0.56	4790.00	1.00	
VR34 A SMM	17-Nov-2012, 13:18	1.98	0.47	5490.00	1.00	
VR34 ADUP SMM	17-Nov-2012, 13:20	1.90	0.52	5270.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 13:21	3.61	0.45	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 13:23	0.03	5.22	77.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR34 ASPK SMM	17-Nov-2012, 13:25	2.87	0.56	7960.00	1.00	
VR34 B SMM	17-Nov-2012, 13:26	1.07	0.60	2960.00	1.00	
VR34 C SMM	17-Nov-2012, 13:28	0.73	0.44	2020.00	1.00	
VR34 D SMM	17-Nov-2012, 13:30	1.43	0.42	3980.00	1.00	
VR34 E SMM	17-Nov-2012, 13:31	1.22	0.67	3400.00	1.00	
VR34 F SMM	17-Nov-2012, 13:33	1.11	0.54	3070.00	1.00	
VR34 G SMM	17-Nov-2012, 13:34	1.63	0.49	4530.00	1.00	
VR34 H SMM	17-Nov-2012, 13:36	0.79	0.41	2180.00	1.00	
VR34 I SMM	17-Nov-2012, 13:38	1.33	0.50	3710.00	1.00	
VR34 J SMM	17-Nov-2012, 13:39	1.13	0.53	3150.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 13:41	3.69	0.67	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 13:43	0.00	13.50	6.15	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR34 K SMM	17-Nov-2012, 13:44	1.28	0.66	3550.00	1.00	
VR34 L SMM	17-Nov-2012, 13:46	0.37	0.33	1030.00	1.00	
VR31 MB1 SMM	17-Nov-2012, 13:47	0.00	10.60	11.90	1.00	
VR31 MB1SPK SMM	17-Nov-2012, 13:49	1.82	0.63	5050.00	1.00	
VR31 A SMM	17-Nov-2012, 13:51	0.69	0.33	1900.00	1.00	
VR31 ADUP SMM	17-Nov-2012, 13:52	0.70	0.48	1930.00	1.00	
VR31 ASPK SMM	17-Nov-2012, 13:54	1.53	0.71	4240.00	1.00	
VR31 B SMM	17-Nov-2012, 13:56	0.86	0.72	2400.00	1.00	
VR31 C SMM	17-Nov-2012, 13:57	0.57	0.75	1570.00	1.00	
VR31 D SMM	17-Nov-2012, 13:59	0.28	0.72	788.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 14:00	3.62	0.44	10100.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 14:02:39
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 14:02	0.03	2.03	77.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR31 E SMM	17-Nov-2012, 14:04	0.35	0.34	986.00	1.00	
VR31 F SMM	17-Nov-2012, 14:05	0.32	0.57	880.00	1.00	
VR31 G SMM	17-Nov-2012, 14:07	0.42	0.54	1180.00	1.00	
VR31 H SMM	17-Nov-2012, 14:09	0.42	0.93	1170.00	1.00	
VR31 I SMM	17-Nov-2012, 14:10	0.46	1.69	1270.00	1.00	
VR31 J SMM	17-Nov-2012, 14:12	0.62	0.47	1730.00	1.00	
VR31 K SMM	17-Nov-2012, 14:14	0.95	0.69	2650.00	1.00	
VR31 L SMM	17-Nov-2012, 14:15	0.59	0.49	1630.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 14:17	3.64	0.62	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 14:19	0.00	85.10	3.25	1.00	END CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS28 MB SMM	17-Nov-2012, 14:20	0.00	14.00	9.77	1.00	
VS28 MBSPK SMM	17-Nov-2012, 14:22	1.73	0.50	4810.00	1.00	
VS28 A SMM	17-Nov-2012, 14:23	0.16	0.47	441.00	1.00	
VR68 MB3 SMM	17-Nov-2012, 14:25	0.00	111.00	0.73	1.00	
VR68 MB3SPK SMM	17-Nov-2012, 14:27	1.89	0.70	5250.00	1.00	
VR68 G SMM	17-Nov-2012, 14:28	0.03	2.13	69.60	1.00	
VR68 GDUP SMM	17-Nov-2012, 14:30	0.03	3.15	71.60	1.00	
VR68 GSPK SMM	17-Nov-2012, 14:32	0.98	0.56	2710.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 14:33	3.63	0.59	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 14:35	-0.00	28.50	-6.87	1.00	

11/28/12

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

Prep Code: SMM Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°c Start Time: 1213 End Time: 1243

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	2992-7	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

Prep Code: TLM Digested 20.0mL Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°c Start Time: 1247 End Time: 1447

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	2992-8	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	2992-9	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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SHM Matrix: Soil
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1037 End Time: 1107

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR34 A	1	—	0.738	50.0	11/15 1	Y	
" ADUP	1	—	0.741		1		
" ~~ASPK~~	1	—	0.734		1		
" B	1	—	0.740		1		
" C	1	—	0.739		1		
" D	1	—	0.721		1		
" E	1	—	0.717		1		
" F	1	—	0.735		1		
" G	1	—	0.732		1		
" H	1	—	0.750		1		
" I	1	—	0.713		1		
" J	1	—	0.728		1		
" K	1	—	0.710		1		
" L	1	—	0.714		1		
" MB1	—	—	—		1		
" MBSPK	—	—	—	50.0	1	Y	

11-15-12 DM

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: VR34

W
11-15-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

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

DATE: 11/13/12 (A)
ANALYST: CDE / KE

Instrumentation

Drying Ovens: 12
Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time		
record times as mm/dd/yy hh:mm		
11/13/2012 18:46	date/time in oven	KE
11/14/2012 11:42	date/time out	KE
elapsed hrs =	16.9	

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	1/13/12 17:24 KE	1/13/12 13:37 CDE	11/14/12 12:18 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	9.9998										
	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			1.1208	1.1209			0.00							
VR33 E1		6.0790	1.0662	5.9747			4.91	97.9%						
VR33 E1 dup		6.1737	1.0934	6.0514			4.96	97.6%						
							RPD =	0.33%				RPD =	NA	
VR33 E1 trp		6.2290	1.1139	6.0047			4.89	95.6%						
							RSD =	1.28%				RSD =	NA	
VR33 F1		6.7188	1.0814	6.6208			5.54	98.3%						
VR33 F1		7.5010	1.0925	7.4463			6.35	99.1%						
VR33 F1		7.3974	1.1085	7.3503			6.24	99.3%						
VR33 F1		6.2771	1.1161	6.1170			5.00	96.9%						
VR33 F1		6.1322	1.0830	6.0355			4.95	98.1%						
VR33 F1		6.1163	1.0991	5.9492			4.85	96.7%						
VR33 F1		6.9374	1.0883	6.8316			5.74	98.2%						
VR34 A1		6.1085	1.0797	5.9381			4.86	96.6%						
VR34 B1		6.0522	1.0936	5.8922			4.80	96.8%						
VR34 C1		6.7539	1.1119	6.5982			5.49	97.2%						
VR34 D1		6.5234	1.0999	6.3997			5.30	97.7%						
VR34 E1		6.0785	1.0853	5.8991			4.81	96.4%						
VR34 F1		6.1103	1.0933	5.9278			4.83	96.4%						
VR34 G1		7.2733	1.1063	7.1264			6.02	97.6%						
VR34 H1		7.0868	1.1079	6.9207			5.81	97.2%						
VR34 I 1		6.0793	1.1120	5.9554			4.84	97.5%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/13/12 (A)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: CDE / KE

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

11/13/2012 18:46	date/time in oven	KE
11/14/2012 11:42	date/time out	KE
elapsed hrs =	16.9	

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	1/13/12 17:24 KE	1/13/12 13:37 CDE	11/14/12 12:18 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	9.9998										
	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 (%)
VR34 J 1		6.6686	1.1099	6.5335			5.42	97.6%						
VR34 K1		7.5526	1.1146	7.3842			6.27	97.4%						
VR34 L1		6.7858	1.1141	6.7624			5.65	99.6%						

VR34 - 6053

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

④ 11-13-12 ⓦ

A

Analyst: CDG/ⓦ	Date: 11-13-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 18:46	Time Out of Oven: 11:42	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:	11-13-12 17:24	11-13-12 13:37	11-14-12 12:18						
Cal Weight (10.0000):	10.0000 ⓦ	10.0000 CDG	9.9998 Ⓥ						

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	1.1208	1.1209						
VR33 E'	2	6.0790	1.0662	5.9747						
E'dp	3	6.1737	1.0934	6.0514						
E'D	4	6.2290	1.1139	6.0047						
F'	5	6.7188	1.0814	6.6208						
G'	6	7.5010	~~1.07~~ ⓓ	7.4463						
~~H'~~	7	7.3574	~~1.0723~~ ②	7.3503						
I'	8	6.2771	~~1.1036~~ ③	6.1170						
J'	9	6.1322	1.0830	6.0355						
K'	10	6.1163	1.0991	5.9492						
L'	11	6.9374	1.0983	6.8316						
VR34 ~~VR4~~ A'	12	6.1085	1.0797	5.9381						
B'	13	6.0522	1.0936	5.8922						
C'	14	6.7539	1.1119	6.5982						
D'	15	6.5234	1.0999	6.3997						
E'	16	6.0785	1.0853	5.9891						
F'	17	6.1103	1.0933	5.9278						
G'	18	7.2733	1.1063	7.1264						
H'	19	7.0868	1.1079	6.9207						
I'	20	6.0793	1.1120	5.9554						
J'	21	6.6086	1.1099	6.5335						
K'	22	7.5526	1.1146	7.3842						
L'	23	6.7859	1.1141	6.7624						

~~ⓓ 1.0814~~

Soil Conductivity - pH

Date: 11/15/2012

meter: Orion Model 115

Analyst: KE 10:10

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)* **19.9**

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			20.9	6.97			*OK@ 99.6%*
VR33 A1	10	20	20.8	5.76			
VR33 A1 du	10	20	20.7	5.76			*pH RPD =0%*
VR33 B1	20	20	20.5	5.94			
VR33 C1	10	20	20.4	6.41			
CR33 D1	20	20	20.4	6.00			
VR33 E1	20	20	20.3	5.98			
VR33 F1	20	20	20.4	5.79			
VR33 G1	20	20	20.7	5.92			
VR33 H1	20	20	21.0	6.06			
VR33 I 1	20	20	20.9	6.59			
pH 7 Buffer			20.9	6.98			*OK@ 99.7%*
VR33 J 1	20	20	20.8	4.69			
VR33 K1	20	20	20.8	5.40			
VR33 L1	20	20	20.7	6.00			
VR34 A1	10	20	20.7	5.77			
VR34 B1	20	20	20.7	5.90			
VR34 C1	20	20	20.8	5.63			
VR34 D1	20	20	21.1	5.80			
VR34 E1	20	20	21.6	6.79			
VR34 F1	10	20	20.9	6.12			
VR34 H1	10	20	20.8	6.16			
pH 7 Buffer			21.0	6.97			*OK@ 99.6%*
VR34 G1	20	20	20.8	6.19			
VR34 G1 du	20	20	20.8	6.26			*pH RPD =1.12%*
VR34 I 1	20	20	20.8	5.91			
VR34 J 1	20	20	20.5	6.09			
pH 7 Buffer			20.3	6.99			*OK@ 99.9%*

① 11-15-12 (W) ② 208 11-15-12 (W)

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-15-12
Analyst: (W) 10:10

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) 19.9
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			20.9	~~6.97~~ ① 6.97			
VR33 A'	10	20 (2)	~~20.0~~	5.76			
A	10	20	20.7	5.76			
B'	20	20	20.5	5.94			
C'	10	20	20.4	6.41			
D'	20	20	20.4	6.00			
E'	↓	20	20.3	5.98			
F'		20	20.4	5.79			
G'		20	20.7	5.98			
H'		20	21.0	6.06			
↓ J'	↓	20	20.9	6.59			
pH 7 Buffer			20.9	6.98			
VR33 J'	20	20	20.8	4.69			
K'	↓	↓	20.8	5.40			
↓ L'	↓	↓	20.7	6.00			
VR34 A'	10	↓	20.7	3.77			
B'	20		20.7	5.90			
C'	↓		20.8	5.63			
D'	↓		21.1	5.80			
E'	↓		21.6	6.79			
F'	10		20.9	6.12			
↓ H' ~~G'~~	10	↓	20.8	6.16			
pH 7 Buffer			21.0	6.97			
VR34 G'	20	20	20.8	6.19			
mG'	↓	↓	20.8	6.26			
I'	↓	↓	20.8	5.91			
↓ J'	↓	↓	20.5	6.09			
pH 7 Buffer			20.3	6.99			
pH 7 Buffer							
pH 7 Buffer							

11-15-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration Page 1 of 2

Date:	11-15-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:00		2.00	Ricca	1205264	2.00	19.8
Analyst:	LW		4.00	Fisher	116550	4.01	19.9
			7.00	Ricca	1206051	7.02	19.9
			10.00	Fisher	116396	10.06	19.9
			12.00	Ricca	1206157	12.01	19.8
			Verification	Fisher	120143		

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	11:10	ICV	6.98	6.98			19.9
		VS70A4	7.81	7.81			21.6
		A4 dup	7.84	7.84			21.4
		B4	7.06	7.05			21.2
		VS74 A1	7.41	7.41		BOD	18.8
		CCV	7.02	7.02			20.8
(W)	14:46	CCV	6.97	6.96	Soil		20.9
		VR33 A'	5.76	5.76			20.8
		A'	5.76	5.76			20.7
		B'	5.94	5.94			20.8
		C'	6.40	6.41			20.4
		~~CCV~~ D'	6.00	6.00			20.4
		E'	5.96	5.98			20.3
		F'	5.79	5.79			20.4
		G'	5.91	5.92			20.7
		H'	6.04	6.06			21.0
		I'	6.58	6.59			20.9
		CCV	6.98	6.98			20.9
		VR33 J'	4.68	4.69			20.8
		K'	5.40	5.40			20.8
		L'	6.00	6.00			20.7
		VR34 A'	5.77	5.77			20.7
		~~CCV~~ B'	5.90	5.90			20.7

VR34 : 00690

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

② 6.79

Date:	11-15-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:00		2.00	Ricca			
Analyst:	MW		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	Temperature
(W)	1446	VR34 ~~ICV~~ C'	5.63	5.63			20.8
		D'	5.77	5.80			21.1
		F'	~~6.27~~ ②	6.79			21.6
		F'	6.12	6.12			20.9
		↓H'	6.14	6.16			20.8
		CCV	6.97	6.97			21.0
		VR34 G'	6.19	6.19			20.8
		↓G'	6.25	6.26			20.8
		I'	5.91	5.91			20.8
		↓J'	6.09	6.09			20.5
		CCV	6.99	6.99			20.3
		CCV					
				11-15-12 (W)			
		~~CCV~~					

VR34 : 00691

W

11-19-12

Soil - pH

meter: Orion Model 115

Date: 11/16/2012

Analyst: KE 11:10

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)* 20.3

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	6.96			OK@ 99.4%
VR34 K1	20	20	20.1	5.46			
VR34 K1	20	20	20.2	5.53			
VR35 A1	20	20	20.2	5.11			
VR35 A1 du	20	20	20.2	5.09			pH RPD =0.39%
VR35 B1	20	20	20.2	5.10			
VR35 C1	20	20	20.3	6.07			
VR35 D1	20	20	20.2	5.98			
VR35 E1	20	20	20.1	6.02			
VR35 F1	20	20	20.3	5.18			
VR35 G1	20	20	20.2	5.30			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VR35 H1	20	20	20.8	6.17			
VR35 I 1	20	20	20.2	5.78			
VR35 J 1	20	20	20.3	5.65			
VR35 K1	20	20	20.2	6.15			
VR35 L1	20	20	20.2	5.48			
VR36 A1	20	20	20.2	5.23			
VR36 B1	20	20	20.2	5.12			
VR36 C1	20	20	20.2	5.89			
VR36 D1	20	20	20.2	5.64			
VR36 E1	20	20	20.2	5.69			
pH 7 Buffer			20.8	7.04			OK@ 100.6%
VR36 F1	20	20	20.2	5.82			
VR36 G1	20	20	20.3	5.69			
VR36 H1	20	20	20.2	5.43			
VR36 I 1	20	20	20.2	5.66			
VR36 J 1	20	20	20.2	5.32			
VR36 K1	20	20	20.1	4.89			
VR36 L1	20	20	20.2	5.50			
VR37 A1	20	20	20.1	5.66			
VR37 A1 du	20	20	20.1	5.68			pH RPD =0.35%
VR37 B1	20	20	20.1	5.65			
pH 7 Buffer			20.7	7.03			OK@ 100.4%
VR37 C1	20	20	20.2	5.70			
VR37 D1	20	20	20.2	5.62			
VR37 E1	20	20	20.0	5.43			
VR37 F1	20	20	20.0	5.66			
VR37 G1	20	20	20.0	5.56			
VR37 H1	20	20	20.1	5.76			
VR37 I 1	20	20	20.0	5.59			
VR37 J 1	20	20	21.5	6.02			
VR37 K1	20	20	20.2	5.97			
VR37 L1	20	20	20.2	6.41			
pH 7 Buffer			20.6	7.03			OK@ 100.4%
VR37 M1	20	20	20.1	5.74			
VR37 N1	20	20	20.1	6.12			
VR37 O1	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			OK@ 100.6%

① 11-2/6-12 ②

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-16-12

Analyst: ② 11:10

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)* 20.3

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	6.96			
VR34 K1	20	20	20.1	5.46			
L1	↓	↓	20.2	5.53			
VR35 A1			20.2	5.11			
~~DUP~~ A1			20.2	5.09			
B1			20.2	5.10			
~~DUP~~ C1			20.3	~~5.12~~ ①	6.07		
~~DUP~~ D1			20.2	~~6.07~~	5.98		
~~DUP~~ E1			20.1	6.02			
~~DUP~~ F1			20.3	5.18			
~~DUP~~ G1	↓	↓	20.2	5.30			
pH 7 Buffer			20.4	6.99			
VR35 H1	20	20	20.8	6.17			
I1	↓	↓	20.2	5.78			
J1	10	20	20.3	5.65			
K1	20	20	20.2	~~5.66~~	6.15		
L1	↓	↓	20.2	~~6.15~~	5.48		
VR36 A1			20.2	~~5.48~~	5.23		
B1			20.2	5.12			
C1			20.2	5.89			
D1			20.2	5.64			
E1	↓	↓	20.2	5.69			
pH 7 Buffer			20.8	7.04			
VR36 F1	20	20	20.2	5.82			
G1			20.3	5.69			
H1			20.2	5.43			
I1			20.2	5.66			
J1			20.2	5.32			
K1			20.1	4.89			
L1			20.2	5.50			
VR37 A1			20.1	5.66			
~~DUP~~ A1			20.1	5.68			
B1	↓	↓	20.1	5.65			
pH 7 Buffer			20.7	2.03			
VR37 C1	20	20	20.2	5.70			
D1	20	20	20.2	5.62			
E1	10	20	20.0	5.43			
F1	20	20	20.0	5.66			
G1	10	20	20.0	5.56			
H1	10	20	20.1	5.76			
I1	20	20	20.0	5.59			
J1	20	20	21.5	6.02			
K1	10	40	20.2	5.97			
L1	10	20	① 20.2	~~20.0~~ ①	6.41		
pH 7 Buffer			20.6	7.03			

Soil Conductivity - pH Page 2 of 2

meter: Orion Model 115

Date: 11-16-12

Analyst: (W) 11:10

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)* 20.1

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~~			~~11-16-12~~				
VR37 M1	10	20	20.1	5.74			
↓ M2	10	20	20.1	6.12			
↓ O	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			
pH 7 Buffer			11-16-12 1100				
pH 7 Buffer							
pH 7 Buffer							

ARI 6043S pH-Cond, Soil
Revised: 8/9/99

SOIL COND AND PH1
Date Printed: 11/15/2012

VR34 : 00694

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

① 11-16-12 (W)

Calibration

Date:	11-15-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca	1505264	2.00	20.3
Analyst:	(W)		4.00	Fisher	108305	4.00	20.1
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.3
			12.00	Ricca	1206157	12.00	20.2
			Verification	Fisher	120143	7.03	20.1

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	14:52	ICV	6.96	6.96	Sat. 1 pH		20.3
		VR34 ~~VR39~~ K'	5.45	5.46			20.1
		↓ L'	5.55	5.53			20.2
		VR35 A'	5.11	5.11			20.2
		~~A~~	5.09	5.09			20.2
		B'	5.10	5.10			20.2
		C' ~~B~~ ① ~~6.08~~	~~5.92~~	6.07			20.3
		D' ① ~~6.08~~ 5.97	~~6.00~~	5.98			20.2
		E'	6.02	6.02			20.1
		F' ~~G~~	5.18	5.18			20.3
		↓ G' ~~H~~	5.28	5.30			20.2
		CCV	6.99	6.99			20.4
		VR35 ~~A~~ ①	6.17 H'	H' 6.17		20.2	~~20.8~~ ①
		H'	~~5.78~~	~~5.78~~	11-16-12		~~20.2~~
		I'	~~5.68~~ ②	① ~~5.65~~ 5.78			① ~~20.2~~
		J'	5.66	① ~~5.66~~ 5.65			20.3
		K'	6.12	6.15			20.2
		↓ L'	5.50	5.48			20.2
		VR36 A'	5.23	5.23			20.2
		B'	5.12	5.12			20.2
		C'	5.89	5.89			20.2
		D'	5.64	5.64			20.2
↓	↓	~~CCV~~ E'	5.68	5.69		↓	20.2

② 6.65 11-16-12 (W)

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pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-11		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	(W)		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Cont

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
(W)	14:52	ICV	7.04	7.04		pH 5.1	20.8
		VR36F G	5.82	5.82			20.2
		G	5.68	5.69			20.3
		H	5.43	5.43			20.2
		I	5.66	5.66			20.2
		J	5.32	5.32			20.2
		K	4.89	4.89			20.1
		L	5.50	5.50			20.2
		VR37 A	5.65	5.66			20.1
		A	5.68	5.68			20.1
		B	5.64	5.65			20.1
		CCV	7.04	7.03			20.7
		VR37 C	5.70	5.70			20.2
		D	5.61	5.62			20.2
		E	5.43	5.43			20.0
		F	5.64	5.66			20.0
		G	5.56	5.56			20.0
		H	5.75	5.76			20.1
		I	5.61	5.59			20.0
		J	6.01	6.02			21.5
		K	5.97	5.97			20.2
		L	6.41	6.41			20.2
		CCV	7.04	7.03			20.6

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	(W)		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher	cont		
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		ICV					
(W)	14:52	VR37M1	5.74	5.74	pH/Cal		20.1
↓	↓	↓ N1	6.11	6.12	↓		20.1
↓	↓	↓ D1	6.08	6.08	↓		20.2
↓	↓	CCV	7.04	7.04	↓		20.7
		CCV					
		CCV					

W
11-26-12

TOC Solids Prep Log

DATE: 11/13/2012

ANALYST: KE / CDE 18:54

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			13.1669		13.1672	0.3 mg	
VR33 E1		-	13.1141	17.5275	17.5673	100.90%	
VR33 E1 dup		-	13.1755	17.3236	17.4601	103.29%	RPD = 2.34%
VR33 E1 trip		-	13.2589	17.7206	17.8233	102.30%	RSD = 1.17%
VR33 F1		-	13.1720	18.7331	18.8062	101.31%	
VR33 G1		-	13.1494	18.8736	18.9526	101.38%	
VR33 H1		-	13.1004	18.8012	18.8913	101.58%	
VR33 I 1		-	13.1154	17.7638	17.8746	102.38%	
VR33 J 1		-	13.1489	17.3160	17.4210	102.52%	
VR33 K1		-	13.2015	17.1836	17.2444	101.53%	
VR33 L1		-	13.1359	18.0266	18.1040	101.58%	
VR34 A1		-	13.0889	17.7419	17.7996	101.24%	
VR34 B1		-	13.1873	18.5903	18.6392	100.91%	
VR34 C1		-	13.1060	17.5733	17.6240	101.13%	
VR34 D1		-	13.1937	18.6478	18.7829	102.48%	
VR34 E1		+	13.1400	17.8292	18.2530	109.04%	
VR34 F1		-	13.1969	17.4734	17.6889	105.04%	
VR34 G1		-	13.0927	18.0841	18.2734	103.79%	
VR34 H1		-	13.1114	18.3213	18.5649	104.68%	
VR34 I 1		-	13.1183	18.4557	18.5210	101.22%	
VR34 J 1		-	13.1596	18.0656	18.2506	103.77%	
VR34 K1		-	13.1244	18.7036	18.8375	102.40%	
VR34 L1		-	13.1174	18.8317	18.9092	101.36%	

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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 (W)/COC 18:54 (1) 11-13-12 (W) Date 11-13-12

Sample Identification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1669	Ø (1)	13.1672		
VR33 E1		–	13.1141	~~17.5960~~	17.5225	17.5673	Dry Sect
nPE1		–	13.1755	17.3236	17.4601		
PE1		–	13.2589	17.7206	17.8233		
F1		–	13.1720	18.7331	18.8062		
G1		–	13.1494	18.8236	~~18.~~ 18.9526		
H1		–	13.1004	18.8012	~~17.8746~~	18.8913	
F1		–	13.1154	17.7638	~~17.4240~~	17.8746	
J1		–	13.1489	17.3160	~~17.2444~~	17.4240	
K1		–	(1) ~~13.0885~~	13.2015	17.1836	17.2444	
L1		–	~~13.1873~~	13.1359	18.0266	18.1040	
VR34 A1		–	~~13.1060~~	13.0889	17.7419	17.7996	
B1		–	~~13.1937~~	13.1873	18.5903	18.6392	
C1		–	~~13.1400~~	13.1060	17.5733	17.6240	
D1		–	~~13.1963~~	13.1937	18.6478	18.7029	
E1		H –	~~13.0927~~	13.1400	17.8292	18.2530	
P1		–	~~13.1114~~ (1)	~~13.0927~~	13.1969	17.4734	17.6889
G1		–	~~13.1183~~	~~13.1114~~	13.0927	18.0841	18.2734
H1		–	~~13.1596~~	~~13.1183~~	13.1114	18.3213	18.5649
I1		–	~~13.1244~~	~~13.1596~~	13.1183	18.4557	18.5210
J1		–	~~13.1174~~	~~13.1244~~	13.1596	18.0656	18.2506
K1		–	~~13.1356~~	~~13.1174~~	13.1244	18.7036	18.8375
L1		–	~~13.2013~~	~~13.1356~~ (2)	13.1174	18.8317	18.9092

11-13-12 (W)

(2) 13.1356

(3) 11-16-12 cm

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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 @/COC 18:54 ① 11-13-12 ② Date 11-13-12

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1669	Ø ①	13.1672		
VR33 E1		–	13.1141	~~17.5960~~	17.5275	17.5673	Dry Soil
nPE1		–	13.1755	17.3236	17.4601		
PE1		–	13.2589	17.7206	17.8233		
F1		–	13.1720	18.7331	18.8062		
G1		–	13.1494	18.8236	~~18.9~~ 18.9526		
H1		–	13.1004	18.8012	~~17.8746~~ ③	18.8913	
F1		–	13.1154	17.7638	~~17.4240~~	17.8746	
J1		–	13.1489	17.3160	~~17.2444~~	17.4240	
K1		–	① ~~13.0887~~	13.2015	17.1836	17.2444	
L1		–	~~13.1873~~	13.1359	18.0266	18.1040	
VR34 A1		–	~~13.1060~~	13.0889	17.7419	17.7996	
B1		–	~~13.1937~~	13.1873	18.5903	18.6392	
C1		–	~~13.1400~~	13.1060	17.5733	17.6240	
D1		–	~~13.1963~~	13.1937	18.6478	18.7829	
E1		H –	~~13.0927~~	13.1400	17.8292		
P1		–	~~13.1114~~ ①	~~13.0927~~	13.1969	17.4734	17.6889
G1		–	~~13.1183~~	~~13.1114~~	13.0927	18.0841	18.2734
H1		–	~~13.1596~~	~~13.1183~~	13.1114	18.3213	18.5649
I1		–	~~13.1244~~	~~13.1596~~	13.1183	18.4557	18.5210
J1		–	~~13.1174~~	~~13.1244~~	13.1596	18.0656	18.2506
K1		–	~~13.1356~~	~~13.1174~~	13.1244	18.7036	18.8375
L1		–	~~13.2013~~	~~13.1356~~ ②	13.1174	18.8317	18.9092

② 13.1356

③ 11-16-12 cm

TOC, Solids Data Analysis

DATE: 11/26/2012
ANALYST: KE 7:38

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
34.5	63.8	40.6	87.1	60.2		70.3	20.7%	*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	961	961	*96.10%*
Blank				1.00		40.0	-10.48	-10	*Blank OK*
NIST 1941B				1.00		1.6	30599	30,599	*102.34%*
Silica Blanks 1				1.00		35.0	35.5	36	*Low Scale*
Silica Blanks 2				1.00		36.5	63.77	64	*Low Scale*
Silica Blanks 3				1.00		37.3	40.61	41	*Low Scale*
Silica Blanks 4				1.00		33.0	87.07	87	*Low Scale*
Silica Blanks 5				1.00		34.1	60.19	60	*Low Scale*
VR33 A1				1.00		0.8	83382	83,382	*Range OK!*
VR33 B1				1.00		0.9	38023	38,023	*Range OK!*
VR33 C1	11.0	108.5	89.86%	9.86		1.7	14786	145,220	*Range OK!*
VR33 D1				1.00		0.9	62645	62,645	*Range OK!*
CCV				1.00		40.0	1036	1,036	*103.60%*
Blank				1.00		40.0	-22.12	-22	*Blank OK*
VR33 E1	11.5	113.6	89.88%	9.88		1.3	7641	74,855	*Range OK!*
VR33 E1 dup	11.0	109.2	89.93%	9.93		1.2	8134	80,120	*RPD=6.8%*
VR33 E1 trp	11.7	116.4	89.95%	9.95		1.4	7791	76,881	*RSD=3.4%*
VR33 E1 ms	11.5	113.6	89.88%	9.88	20	1.4	44197	435,965	*Range OK!*
Spike =	*0.05*	*mg C to*	*0.1*	*mg samp=*	*352,795*	*ppm*		*102%*	

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
VR33 F1	16.1	160.0	89.94%	9.94		2.0	5892	57,925	*Range OK!*
VR33 G1				1.00		1.0	7158	7,158	*Low Scale*
VR33 H1				1.00		1.8	4481	4,481	*Range OK!*
VR33 I 1	11.0	109.2	89.93%	9.93		1.8	8376	82,523	*Range OK!*
VR33 J 1	11.2	111.3	89.94%	9.94		1.5	9257	91,363	*Range OK!*
VR33 K1	11.6	113.8	89.81%	9.81		1.9	11118	108,452	*Range OK!*
CCV				1.00		40.0	1025	1,025	*102.50%*
Blank				1.00		40.0	-22.56	-23	*Blank OK*
VR33 L1	15.2	148.2	89.74%	9.75		2.2	5718	55,135	*Range OK!*
VR34 A1	18.7	176.8	89.42%	9.45		1.7	12349	116,159	*Range OK!*
VR34 B1				1.00		1.0	46969	46,969	*Range OK!*
VR34 C1				1.00		1.0	49462	49,462	*Range OK!*
VR34 D1	12.5	122.2	89.77%	9.78		1.8	10044	97,573	*Range OK!*
VR34 E1				1.00		1.1	31712	31,712	*Range OK!*
VR34 F1				1.00		1.1	43060	43,060	*Range OK!*
VR34 G1				1.00		0.8	52059	52,059	*Range OK!*
VR34 H1				1.00		1.0	50651	50,651	*Range OK!*
VR34 I 1				1.00		0.9	64966	64,966	*Range OK!*
CCV				1.00		40.0	1019	1,019	*101.90%*
Blank				1.00		40.0	-23.78	-24	*Blank OK*
VR34 J 1				1.00		1.1	36845	36,845	*Range OK!*
VR34 K1				1.00		0.9	76844	76,844	*Range OK!*
VR34 L1	11.8	114.1	89.66%	9.67		2.1	4984	47,583	*Range OK!*
VT58 A1				1.00		2.1	1062	1,062	*Low Scale*
VT58 A1 dup				1.00		2.2	1040	1,040	*RPD=2.1%*
VT58 A1 trp				1.00		2.1	1360	1,360	*RSD=15.5%*
VT58 A1 ms				1.00	10	2.0	15771	15,771	*Range OK!*
Spike =	*0.025*	*mg C to*	*2.0*	*mg samp=*	*12,500*	*ppm*		*118%*	
VT58 B1				1.00		3.2	375	375	*Low Scale*
VT58 C1				1.00		4.8	1162	1,162	*Low Scale*
VT58 D1				1.00		5.9	785	785	*Low Scale*
CCV				1.00		40.0	989	989	*98.90%*
Blank				1.00		40.0	-21.47	-21	*Blank OK*
VT56 E1				1.00		4.2	803	803	*Low Scale*
VT58 F1				1.00		6.9	716	716	*Low Scale*
VR35 A1	12.9	128.2	89.94%	9.94		2.6	4462	43,715	*Range OK!*
VR35 A1 dup	12.4	120.8	89.74%	9.74		2.6	3996	38,314	*RPD=13.2%*
VR35 A1 trp	12.4	122.8	89.90%	9.90		2.8	3942	38,412	*RSD=7.7%*
VR35 A1 ms	12.9	128.2	89.94%	9.94	10	2.8	12435	122,950	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*88,732*	*ppm*		*89%*	
VR35 B1				1.00		1.0	33883	33,883	*Range OK!*
VR35 C1				1.00		1.2	7877	7,877	*Range OK!*
VR35 D1				1.00		2.9	3469	3,469	*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*
VR35 E1				1.00		0.9	24750	24,750	*Range OK!*
CCV				1.00		40.0	920	920	*92.00%*
Blank				1.00		40.0	-27.16	-27	*Blank OK*
VR35 F1	24.7	246.4	89.98%	9.98		1.6	10945	108,553	*Range OK!*
VR35 G1				1.00		1.0	75451	75,451	*Range OK!*
VR35 H1				1.00		0.8	91579	91,579	*Range OK!*
VR35 I 1				1.00		1.2	40037	40,037	*Range OK!*
VR35 J 1				1.00		1.0	58289	58,289	*Range OK!*
VR35 K1				1.00		1.1	27493	27,493	*Range OK!*
VR35 L1	13.2	128.7	89.74%	9.75		2.0	8316	80,465	*Range OK!*
NIST 1941B				1.00		1.9	29563	29,563	*98.87%*
CCV				1.00		40.0	1020	1,020	*102.00%*
Blank				1.00		40.0	-25.28	-25	*Blank OK*

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① 11-28-12 (M)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 3

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler	
Standards:	Source		Conc (ppm)	Analyst:	(M)
Calibration:	ARI – 00128-03		5000	Date:	11-28-12
Verification:	ERA – 0409-12-01		5000 to 1000 for CVS	Time:	7:38
SRM:	NBS 1941b or 8704		Method: PSEP 1986-MOD	Balance ID	BI46454148
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			1.6			
SB 1			35.0			
2			35.5			
3			37.3			= 34.1
① 4			33.0	X Silica Lot #5 11-26-12 (M)		
VR33 A'			0.8			
B'			0.9			
C'	11.0	108.5	1.7			
D'			0.9			
CCV			40			
CCB			40			
VR33 E'	11.5	113.6	1.3			
DUP E'	11.0	109.2	1.2			
MP E'	11.7	116.4	1.4			
MS E'	11.5	113.0	1.4	2500	20	
F'	16.1	160.0	2.0			
G'			1.0			
H'			1.8			
I'	11.0	109.2	1.8			
J'	11.2	111.3	1.5			
K'	11.6	113.8	1.9			
CCV			46			
CCB			40			
VR33 L'	15.2	148.2	2.2			
VR34 A'	18.7	176.8	1.7			
B'			① 2. 1.0			
C'			1.0			
D'	12.5	122.2	1.8			
E'			1.1			
F'			1.1			

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Analytical Chemists and Consultants

(1) 11-26-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler		
Standards:	Source	Conc (ppm)	Analyst:	(W)	
Calibration:	ARI - QQ128-03	5000	Date:	11-26-12	
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:38	
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B1464541 45	
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VR34 G1			0.8			
H1			1.0			
I1			0.9			
↓ J1	CCV		40			
CCV K1	CCB		40			
VR34 ~~CCB~~ L1	K+J1		~~40~~ 1.2	1.1		
VR34 K1			0.9			
↓ L1	11.8	114.1	2.1			
VT58 A1			2.1			
DA1			2.2			
DA1			~~2.2~~ 2.1			
MSA1			2.0	2500	10	
B1			3.2			
C1			4.8			
↓ D1			5.9			
CCV			40			
CCB			40			
VT58 E1			4.2			
↓ F1	10		6.9			
VR35 A1	12.9	128.2	2.6			
DA1	12.4	120.8	2.6			
DA1	12.4	122.8	2.8			
MSA1	12.9	128.2	2.8	2500	10	
B1			1.0			
C1			1.2			
D1			2.9			
↓ E1	~~24.7~~ 10	~~246.4~~ 2	0.9			
CCV			40			
CCB			40			
VR35 F1	24.7	246.4	1.6			
G1			1.0			
↓ H1			0.8			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(P) 11-26-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler		
Standards:	Source	Conc (ppm)	Analyst:	(P)	
Calibration:	ARI - 00128-03	5000	Date:	11-26-12	
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	1:38	
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B1464541 45	
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
UR35 I'			1.2			
J'			1.0			
K'			1.1			
L	13.2	128.7	2.0			
NBS1941 B			1.9			
CCV			40			
CCB			40			

11-26-12 (W)

11-26-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/26 17:26:20

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11260746
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 07:50
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	960.5615	38.4225	5307964	6.610	7.606	152

Last Message: Out of Calibration

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11260758
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:00
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-10.4847	-0.4194	107150	6.897	7.891	53

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11260804
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:09
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30598.6211	48.9578	6718615	6.713	7.710	208

Sample ID: Silica Blank 1 Mode: TOC
Method: Boat Sampler Filename: 11260818
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:22
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34.5058	1.2077	161708	6.718	7.713	58

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 11260829
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:31
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	63.7652	2.2637	303098	6.585	7.584	64

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 11260836
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:38
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	41.6128	1.5438	206715	6.528	7.525	61

Sample ID: Silica Blank 4 Mode: TOC
Method: Boat Sampler Filename: 11260844
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:46
Operator ID: TRINA Sample Type: Sample

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

1	87.0669	2.8732	384714	6.617	7.612	66

Sample ID: Silica Blank 5 — Mode: TOC
Method: Boat Sampler — Filename: 11260854
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 08:56
Operator ID: TRINA — Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	60.1851	2.0523	274799	6.743	7.742	64

Sample ID: VR33 A1 — Mode: TOC
Method: Boat Sampler — Filename: 11260918
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 09:22
Operator ID: TRINA — Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	83382.0312	66.7056	8931693	6.826	7.825	172

Sample ID: VR33 B1 — Mode: TOC
Method: Boat Sampler — Filename: 11260929
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 09:33
Operator ID: TRINA — Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	38022.6562	34.2204	4582013	6.937	7.934	144

Sample ID: VR33 C1 — Mode: TOC
Method: Boat Sampler — Filename: 11260937
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 09:42
Operator ID: TRINA — Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14786.3125	25.1367	3365737	7.043	8.043	126

Sample ID: VR33 D1 — Mode: TOC
Method: Boat Sampler — Filename: 11260955
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 09:59
Operator ID: TRINA — Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	62644.7266	56.3803	7549156	7.274	8.273	153

Sample ID: ICV/CCV BOAT — Mode: TOC
Method: Boat Sampler — Filename: 11261002
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 10:07
Operator ID: TRINA — Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1035.7686	41.4307	5710764	7.079	8.077	158

Sample ID: ICB/CCB BOAT — Mode: TOC
Method: Boat Sampler — Filename: 11261009
Cal. Curve: 11132012 BOAT CAL — Timestamp: 2012/11/26 10:12
Operator ID: TRINA — Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-22.1213	-0.8849	44826	7.268	7.245	120

Last Message: Low Sample Detected

Sample ID: VR33 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11261016
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:18
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7641.4258	9.9339	1330115	7.209	8.208	96

Sample ID: VR33 E1 prp | Mode: TOC
Method: Boat Sampler | Filename: 11261020
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:22
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8133.7959	9.7606	1306911	7.357	8.353	96

Sample ID: VR33 E1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11261025
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:36
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7790.5786	10.9068	1460391	7.239	8.238	104

Sample ID: VR33 E1 MS | Mode: TOC
Method: Boat Sampler | Filename: 11261044
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	44197.3633	61.8763	8285062	7.437	8.435	158

Sample ID: VR33 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11261055
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:58
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5891.9614	11.7839	1577834	7.414	8.413	99

Sample ID: VR33 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11261109
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 11:12
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7158.3057	7.1583	958477	7.397	8.395	102

Sample ID: VR33 H1 | Mode: TOC
Method: Boat Sampler | Filename: 11261118
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 11:21
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	4480.9922	8.0658	1079986	7.472	8.471	104

Sample ID: VR33 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261124
Timestamp: 2012/11/26 11:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8375.8350	15.0765	2018701	7.467	8.465	107

Sample ID: VR33 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261130
Timestamp: 2012/11/26 11:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9256.8750	13.8853	1859204	7.506	8.502	107

Sample ID: VR33 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261137
Timestamp: 2012/11/26 11:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11118.3691	21.1249	2828564	7.498	8.493	117

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261143
Timestamp: 2012/11/26 11:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1025.3511	41.0140	5654969	7.422	8.422	143

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261149
Timestamp: 2012/11/26 11:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-22.5553	-0.9022	42502	7.443	7.367	120

Last Message: Low Sample Detected

Sample ID: VR33 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261156
Timestamp: 2012/11/26 11:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5717.8213	12.5792	1684320	7.404	8.402	105

Sample ID: VR3A A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261202
Timestamp: 2012/11/26 12:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	12349.1611	20.9936	2810980	7.308	8.307	117

Sample ID: VR3A B1 Mode: TOC
Method: Boat Sampler Filename: 11261209
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:12
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46968.6367	46.9686	6288967	7.162	8.160	161

Sample ID: VR3A C1 Mode: TOC
Method: Boat Sampler Filename: 11261217
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:20
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49462.2617	49.4623	6622856	7.155	8.154	155

Sample ID: VR3A D1 Mode: TOC
Method: Boat Sampler Filename: 11261224
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:27
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10044.2158	18.0796	2420806	7.204	8.204	111

Sample ID: VR3A E1 Mode: TOC
Method: Boat Sampler Filename: 11261230
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:34
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31712.4219	34.8837	4670823	7.130	8.129	156

Sample ID: VR3A F1 Mode: TOC
Method: Boat Sampler Filename: 11261236
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:40
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	43060.3828	47.3664	6342229	7.151	8.150	152

Sample ID: VR3A G1 Mode: TOC
Method: Boat Sampler Filename: 11261243
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:47
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	52058.9414	41.6472	5576435	7.061	8.060	153

Sample ID: VR3A H1 Mode: TOC
Method: Boat Sampler Filename: 11261249
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:56
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	50651.0547	50.6511	6782032	7.110	8.106	152

Sample ID: VR3A J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261258
Timestamp: 2012/11/26 13:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	64966.3359	58.4697	7828927	7.152	8.151	172

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261310
Timestamp: 2012/11/26 13:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1019.4501	40.7780	5623364	6.919	7.917	148

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261318
Timestamp: 2012/11/26 13:21
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-23.7771	-0.9511	35958	6.936	6.860	120

Last Message: Low Sample Detected

Sample ID: VR34 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261325
Timestamp: 2012/11/26 13:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36844.9531	40.5294	5426778	6.946	7.946	155

Sample ID: VR34 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261332
Timestamp: 2012/11/26 13:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	76843.6016	69.1592	9260226	6.780	7.776	168

Sample ID: VR34 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261338
Timestamp: 2012/11/26 13:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4983.6714	10.4657	1401329	6.854	7.846	102

Sample ID: VT58 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261343
Timestamp: 2012/11/26 13:45
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	1062.2076	2.2306	298676	6.753	7.746	60

Sample ID: VT58 A1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261352
Timestamp: 2012/11/26 13:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1040.1276	2.2883	306394	6.668	7.664	61

Sample ID: VT58 A1 MP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261359
Timestamp: 2012/11/26 14:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1359.5405	2.8550	382281	6.606	7.604	67

Sample ID: VT58 A1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261403
Timestamp: 2012/11/26 14:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15771.2393	31.5425	4223448	6.793	7.791	128

Sample ID: VT58 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261439
Timestamp: 2012/11/26 14:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	375.1033	1.2003	160721	6.663	7.658	61

Sample ID: VT58 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261445
Timestamp: 2012/11/26 14:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1161.6237	5.5758	746583	6.625	7.624	75

Sample ID: VT58 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261450
Timestamp: 2012/11/26 14:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	784.6025	4.6292	619831	6.601	7.599	70

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261456
Timestamp: 2012/11/26 14:59
Sample Type: Cal. Verification

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	989.3541	39.5742	5462173	6.558	7.557	141

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261501
Timestamp: 2012/11/26 15:03
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.4663	-0.8587	48334	6.595	7.587	41

Sample ID: VT56 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261505
Timestamp: 2012/11/26 15:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	802.9234	3.3723	451538	6.521	7.516	62

Sample ID: VT56 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261509
Timestamp: 2012/11/26 15:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	715.7490	4.9387	661274	6.586	7.577	70

Sample ID: VR35 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261514
Timestamp: 2012/11/26 15:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4462.2505	11.6019	1553455	6.491	7.490	102

Sample ID: VR35 A1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261518
Timestamp: 2012/11/26 15:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3995.5652	10.3885	1390987	6.454	7.451	104

Sample ID: VR35 A1 TRIP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261524
Timestamp: 2012/11/26 15:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3941.9822	11.0376	1477897	6.389	7.385	100

Sample ID: VR35 A1 ~~TRIP~~ WW
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261532
Timestamp: 2012/11/26 15:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12435.0283	34.8181	4662042	6.366	7.364	133

Sample ID: VR35 B1 Mode: TOC
Method: Boat Sampler Filename: 11261538
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 15:42
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33882.9062	33.8829	4536825	6.279	7.279	148

Sample ID: VR35 C1 Mode: TOC
Method: Boat Sampler Filename: 11261546
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 15:48
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7877.3901	9.4529	1265712	6.275	7.268	117

Sample ID: VR35 D1 Mode: TOC
Method: Boat Sampler Filename: 11261551
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 15:54
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3469.3005	10.0610	1347135	6.374	7.372	131

Sample ID: VR35 E1 Mode: TOC
Method: Boat Sampler Filename: 11261557
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:00
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24750.2734	22.2752	2982592	6.453	7.451	148

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11261613
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:17
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	919.6147	36.7846	5088657	6.715	7.715	144

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11261620
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:22
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.1645	-1.0866	17816	6.581	6.661	120

Last Message: Low Sample Detected

Sample ID: VR35 F1 Mode: TOC
Method: Boat Sampler Filename: 11261626
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:29
Operator ID: TRINA Sample Type: Sample

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

1	10944.6387	17.5114	2344730	6.674	7.671	114

Sample ID: VR35 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261634
Timestamp: 2012/11/26 16:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75451.0000	75.4510	10102674	6.545	7.544	176

Sample ID: VR35 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261640
Timestamp: 2012/11/26 16:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	91578.8125	73.2630	9809714	6.707	7.705	166

Sample ID: VR35 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261646
Timestamp: 2012/11/26 16:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	40036.6758	48.0440	6432956	6.647	7.645	152

Sample ID: VR35 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261654
Timestamp: 2012/11/26 16:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	58288.9883	58.2890	7804730	6.474	7.470	225

Sample ID: VR35 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261659
Timestamp: 2012/11/26 17:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27492.5254	30.2418	4049288	6.535	7.533	158

Sample ID: VR35 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261704
Timestamp: 2012/11/26 17:08
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8315.7402	16.6315	2226908	6.493	7.488	113

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261710
Timestamp: 2012/11/26 17:15
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29562.7461	56.1692	7684204	6.520	7.518	233

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11261716
Timestamp: 2012/11/26 17:20
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1019.6380	40.7855	5624370	6.558	7.556	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11261721
Timestamp: 2012/11/26 17:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.2847	-1.0114	27884	6.671	6.607	120

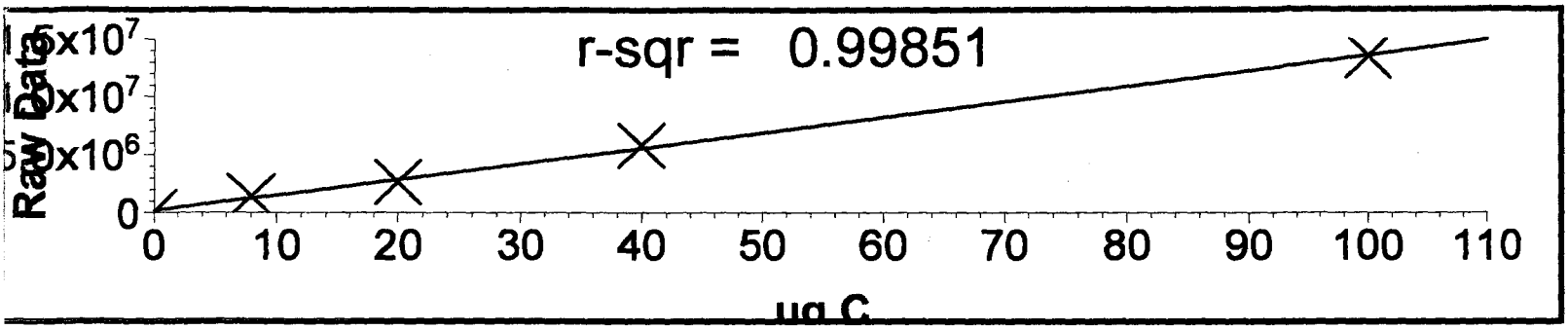
Last Message: Low Sample Detected

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
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

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: VR34

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES - GeoTech

ARI Job No: VR34 Client Name: Hart Crowser, Inc.

Parameter: #10 sieve Client Project: Upper Columbia

☐ Job OK, no corrective action required

Set UP Date 11/9/12

Air Dry Start: 11/9/12 12:50

Sieve Date: 11/13/12

Analyst: gc Date Completed: 11/13/12

Table of Contents: ARI Job VR35

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. VR35

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 VR35

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: VR35

Sample Custody Record

VR35 6 of 9

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

SAMPLED BY: PRS, SMF, WOM, KJH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	Metals*	TOC	pH (EPA 9045)	Total Solids (SM2540G)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA6-4P-1 (0 to 3" depth)		11/3/12	0855	SOIL	X	X	X	X	1	
	SA6-4P-2 (3 to 6" depth)			0900						1	
	SA6-4P-3 (6 to 12" depth)			0905						1	
	SA6-4P-4 (12 to 24" depth)			0910						1	
	SA6-5C			1037						1	
	SA6-6C			0938						1	
	SA6-7C		11/2/12	1024						1	
	SA6-8C		11/3/12	0958						1	
	SA6-Field Duplicate		11/2/12	1456						1	
	SA7-1C		11/3/12	1135						1	
	SA7-2C			1143						1	
	SA7-3C			1433						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE Suzanne Faubl	11/7/12	SIGNATURE Chris Atwell	11-7-12
PRINT NAME Suzanne Faubl	TIME	PRINT NAME	TIME
COMPANY Hart Crowser	0800	COMPANY ARI	1130
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* Metals – Ag, Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Mg, Mn, Ni, Pb, K, Na, Sb, Se, Ti V, Zn (Method 6010B/6020)

Hg by EPA 7471A

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 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: VR35

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)	2.9 4.7 5.1 3.8	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90877952

Cooler Accepted by: CA Date: 11-07-12 Time: 1130

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: _____

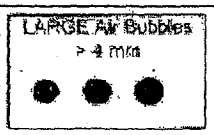
Samples Logged by: JM Date: 11/7/12 Time: 1334

*** 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: VR35

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VR35
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 7, 2012. The samples were received with cooler temperatures between 2.9 and 5.1°C. Please see the Cooler Receipt Form for further details.

Total Metals by 200.8, 6010C and 7471A

The samples were digested on 11/16/12 and analyzed between 11/17/12 and 11/28/12 within the method recommended holding time.

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

Continuing calibration (s): The percent differences (%Ds) for several elements were not within control limits for the CCAL that bracketed the 11/16/12 ICP analyses of these samples. This CCAL was immediately re-analyzed. The %Ds for all elements were within acceptable QC limits. No further corrective actions were taken. All other analytes of interest were within method acceptance criteria.

Samples: No anomalies were encountered for these samples.

Method Blank(s): A small amount of calcium was detected in the method blank associated with these samples. Calcium was detected in all samples associated with this blank. Since the concentrations of calcium 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 antimony, iron and manganese were not within control limits for the matrix spike associated with sample SA6-4P-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 RPD for antimony was not within control limits for the matrix duplicate associated with sample SA6-4P-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 RPD. No corrective actions were taken.

Conventional Chemistry Parameters

The samples were analyzed between 11/15/12 and 11/26/12 within the method recommended holding times.

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

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VR35
December 10, 2012

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.

Matrix spike: The percent recovery for TOC was within acceptable QC limits.

Billing Summary Report ARI Job: VU01
Printed 12/10/12

ANALYTICAL RESOURCES INCORPORATED

The Boeing Company
Will Ernst
PO Box 3707 M/S 1W-12
Seattle, WA 98124

Project Manager: Kelly Bottem

TA Time Requested: 9 days
TA Time Performed: Not Mailed

Analysis Requested	Number	Cost Ea	Extended
SW8082 PCB	1		
SW8260C Volatiles 1.0 ppb RL	1		
Acid/Silica Clean NWTPHD	1		
NWTPHG	1		
TCLP Extraction	1		
Total ICP As Ba Cd Cr Pb Se Ag (7)	1		
Total CVA-Hg	1		
TCLP ICP As Ba Cd Cr Pb Se Ag (7)	1		
TCLP CVA-Hg	1		
Subtotal			
Rush Surcharge (%) 6-13 Business Day TAT			
SW5035 (VOA) Sampling Equipment	1		
Lab Services (Churn/Filter Bag Prep/Other)			
Data Services (EDDs/Package/Other)			

VTSR: 11/27/12
Data Due to Client: 12/06/12

Total

Project: Plant 2-SW Bank Corrective Measure
Project No: NA

1 Soil Samples
0 On Hold

Billing Notes:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VR35
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Twelve samples were submitted for preparation on November 7, 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: Lorna Curtis Date: 11/15/12
Title: *Geotechnical Division Manager*

Reviewed by: Robert Lobe Date: November 15, 2012
Title: *Lead Technician*

ANALYTICAL
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INCORPORATED

ANALYST NOTES - GeoTech

ARI Job No: VR35 Client Name: Hart Crowser, Inc.

Parameter: #10 screen Client Project: Upper Columbia

☐ Job OK, no corrective action required

Set up Date 11/9/12

Air Dry Start 11/9/12 13:30

#10 Sieve Date 11.13.2012

Analyst: BC Date Completed: 11.13.2012

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VR35
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.	SA6-4P-1(0 to 3" depth)	VR35A	12-22225	Soil	11/03/12 08:55	11/07/12 11:30
2.	SA6-4P-2(3 to 6" depth)	VR35B	12-22226	Soil	11/03/12 09:00	11/07/12 11:30
3.	SA6-4P-3(6 to 12" depth)	VR35C	12-22227	Soil	11/03/12 09:05	11/07/12 11:30
4.	SA6-4P-4(12 to 24" depth	VR35D	12-22228	Soil	11/03/12 09:10	11/07/12 11:30
5.	SA6-5C	VR35E	12-22229	Soil	11/03/12 10:37	11/07/12 11:30
6.	SA6-6C	VR35F	12-22230	Soil	11/03/12 09:38	11/07/12 11:30
7.	SA6-7C	VR35G	12-22231	Soil	11/02/12 10:24	11/07/12 11:30
8.	SA6-8C	VR35H	12-22232	Soil	11/03/12 09:58	11/07/12 11:30
9.	SA6-Field Duplicate	VR35I	12-22233	Soil	11/02/12 14:56	11/07/12 11:30
10.	SA7-1C	VR35J	12-22234	Soil	11/03/12 11:35	11/07/12 11:30
11.	SA7-2C	VR35K	12-22235	Soil	11/03/12 11:43	11/07/12 11:30
12.	SA7-3C	VR35L	12-22236	Soil	11/03/12 14:33	11/07/12 11:30

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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: VR35

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA6-4P-1(0 to 3	VR35A	12-22225	
SA6-4P-1(0 to 3D	VR35ADUP	12-22225	
SA6-4P-1(0 to 3S	VR35ASPK	12-22225	
SA6-4P-2(3 to 6	VR35B	12-22226	
PBS	VR35MB1	12-22226	
LCSS	VR35MB1SPK	12-22226	
SA6-4P-3(6 to 12	VR35C	12-22227	
SA6-4P-4(12 to 24	VR35D	12-22228	
SA6-5C	VR35E	12-22229	
SA6-6C	VR35F	12-22230	
SA6-7C	VR35G	12-22231	
SA6-8C	VR35H	12-22232	
SA6-Field Duplicat	VR35I	12-22233	
SA7-1C	VR35J	12-22234	
SA7-2C	VR35K	12-22235	
SA7-3C	VR35L	12-22236	

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: SA6-4P-1(0 to 3" depth)
SAMPLE

Lab Sample ID: VR35A
LIMS ID: 12-22225
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.5	10	**6,450**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**9.0**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**48.0**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.2**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.3**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.5	10	**1,270**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**7.4**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.3**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**8.2**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**8,380**	
3050B	11/16/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**108**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**1,870**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.096	0.2	**190**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0003	0.007	**0.023**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**7.2**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**580**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/16/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**10.1**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**107**	

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: SA6-4P-1(0 to 3" depth)
DUPLICATE

Lab Sample ID: VR35A
LIMS ID: 12-22225
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	6,450	6,570	1.8%	+/- 20%	
Antimony	200.8	0.4	0.3	28.6%	+/- 0.2	L
Arsenic	200.8	9.0	9.1	1.1%	+/- 20%	
Barium	6010C	48.0	49.9	3.9%	+/- 20%	
Beryllium	200.8	0.2	0.2	0.0%	+/- 0.2	L
Cadmium	200.8	2.3	2.4	4.3%	+/- 20%	
Calcium	6010C	1,270	1,340	5.4%	+/- 20%	
Chromium	200.8	7.4	7.1	4.1%	+/- 20%	
Cobalt	200.8	2.3	2.2	4.4%	+/- 20%	
Copper	200.8	8.2	8.0	2.5%	+/- 20%	
Iron	6010C	8,380	8,890	5.9%	+/- 20%	
Lead	200.8	108	107	0.9%	+/- 20%	
Magnesium	6010C	1,870	1,920	2.6%	+/- 20%	
Manganese	6010C	190	195	2.6%	+/- 20%	
Mercury	7471A	0.023	0.023	0.0%	+/- 0.007	L
Nickel	200.8	7.2	6.9	4.3%	+/- 20%	
Potassium	6010C	580	590	1.7%	+/- 120	L
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Sodium	6010C	120 U	120 U	0.0%	+/- 120	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Vanadium	200.8	10.1	10.2	1.0%	+/- 20%	
Zinc	200.8	107	111	3.7%	+/- 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: SA6-4P-1(0 to 3" depth)
MATRIX SPIKE

Lab Sample ID: VR35A
LIMS ID: 12-22225
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	6,450	6,650	192	104%	H
Antimony	200.8	0.4	4.9	24.6	18.3%	N
Arsenic	200.8	9.0	33.4	24.6	99.2%	
Barium	6010C	48.0	241	192	101%	
Beryllium	200.8	0.2	24.5	24.6	98.8%	
Cadmium	200.8	2.3	26.7	24.6	99.2%	
Calcium	6010C	1,270	2,260	962	103%	
Chromium	200.8	7.4	30.4	24.6	93.5%	
Cobalt	200.8	2.3	24.8	24.6	91.5%	
Copper	200.8	8.2	32.7	24.6	99.6%	
Iron	6010C	8,380	8,430	192	26.0%	H
Lead	200.8	108	128	24.6	81.3%	H
Magnesium	6010C	1,870	2,770	962	93.6%	
Manganese	6010C	190	253	48.1	131%	N
Mercury	7471A	0.023	0.087	0.0672	95.2%	
Nickel	200.8	7.2	32.1	24.6	101%	
Potassium	6010C	580	1,450	962	90.4%	
Selenium	200.8	0.5 U	81.3	78.6	103%	
Silver	200.8	0.2 U	21.7	24.6	88.2%	
Sodium	6010C	120 U	1,000	962	104%	
Thallium	200.8	0.2 U	22.4	24.6	91.1%	
Vanadium	200.8	10.1	32.7	24.6	91.9%	
Zinc	200.8	107	182	78.6	95.4%	

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: SA6-4P-2(3 to 6" depth)
SAMPLE

Lab Sample ID: VR35B
LIMS ID: 12-22226
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.3	10	**6,240**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.7**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**13.9**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**44.0**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.7**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.4	10	**1,370**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**7.8**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.2**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**10.7**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**8,420**	
3050B	11/16/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**223**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.2	10	**1,840**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.094	0.2	**179**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.028**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**7.1**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	41	120	**580**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.2**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**11.5**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**108**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA6-4P-3(6 to 12" depth)
SAMPLE

Lab Sample ID: VR35C
LIMS ID: 12-22227
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.3	10	**6,710**	
3050B	11/16/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**1.3**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**69.6**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.2**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.4	10	**1,440**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**7.8**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.3**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**6.5**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**8,140**	
3050B	11/16/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**5.2**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.2	10	**1,940**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.094	0.2	**121**	
CLP	11/16/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**7.5**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	41	120	**510**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/16/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**11.7**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**40**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA6-4P-4(12 to 24" depth)
SAMPLE

Lab Sample ID: VR35D
LIMS ID: 12-22228
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.6	10	**6,300**	
3050B	11/16/12	200.8	11/28/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.082	0.2	**1.3**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**57.7**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.2**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.011	0.09	**0.13**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**1,550**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.036	0.5	**7.5**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.030	0.2	**2.2**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.034	0.5	**5.8**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**8,020**	
3050B	11/16/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.044	0.09	**4.95**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**1,840**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.096	0.2	**114**	
CLP	11/16/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.046	0.5	**7.3**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**580**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.093	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0075	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.6	120	120	U
3050B	11/16/12	200.8	11/28/12	7440-28-0	Thallium	0.0028	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.016	0.2	**11.2**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.32	4	**24**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA6-5C
SAMPLE

Lab Sample ID: VR35E
LIMS ID: 12-22229
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.7	10	**4,590**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**6.9**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**34.8**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.2**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**1.1**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**1,310**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**8.3**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.2**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**6.4**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**8,170**	
3050B	11/16/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**60.3**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**1,800**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.098	0.2	**182**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0003	0.007	**0.015**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**6.9**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**790**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.6	120	120	U
3050B	11/16/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**11.6**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**70**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA6-6C
SAMPLE

Lab Sample ID: VR35F
LIMS ID: 12-22230
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.8	10	**5,190**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.5**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**9.5**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**138**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.2**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**8.4**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.7	10	**3,010**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**7.6**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.6**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**20.1**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**7,980**	
3050B	11/16/12	200.8	11/30/12	**7439-92-1**	**Lead**	0.23	0.5	**619**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**2,050**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.2	**692**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.108**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**6.6**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**740**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.3**	
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.6	120	120	U
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**10.6**	
3050B	11/16/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.7	20	**370**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA6-7C
SAMPLE

Lab Sample ID: VR35G
LIMS ID: 12-22231
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/02/12
Date Received: 11/07/12

Percent Total Solids: 97.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.0	10	**17,100**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.088	0.2	**36.3**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**295**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**9.8**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**4,950**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.039	0.5	**27.8**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.032	0.2	**9.3**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.037	0.5	**33.1**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**27,200**	
3050B	11/16/12	200.8	11/30/12	**7439-92-1**	**Lead**	0.24	0.5	**616**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**6,070**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,380**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.103**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.050	0.5	**30.3**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**2,480**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.3**	
3050B	11/16/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.7	130	**160**	
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**22.7**	
3050B	11/16/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.7	20	**540**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA6-8C
SAMPLE

Lab Sample ID: VR35H
LIMS ID: 12-22232
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.3	10	**8,500**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**12.9**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**119**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.5**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.4	10	**1,730**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**9.2**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.9**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**11.5**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.7	10	**9,680**	
3050B	11/16/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**122**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.2	10	**2,090**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.093	0.2	**461**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.029**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**9.0**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	40	120	**730**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/16/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**12.7**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**128**	

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: SA6-Field Duplicate
SAMPLE

Lab Sample ID: VR35I
LIMS ID: 12-22233
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/02/12
Date Received: 11/07/12

Percent Total Solids: 97.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.9	10	**15,600**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.012	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.082	0.2	**15.6**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**315**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.5**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.011	0.09	**7.17**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.7	10	**4,070**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.036	0.5	**17.3**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.030	0.2	**8.0**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.034	0.5	**26.0**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**19,800**	
3050B	11/16/12	200.8	11/30/12	**7439-92-1**	**Lead**	0.22	0.5	**359**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**3,950**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.2	**1,140**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.082**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.046	0.5	**20.3**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**1,800**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.093	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0075	0.2	**0.3**	
3050B	11/16/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**190**	
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0028	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.016	0.2	**20.3**	
3050B	11/16/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.6	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
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Sample ID: SA7-1C
SAMPLE

Lab Sample ID: VR35J
LIMS ID: 12-22234
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 97.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.6	10	**12,400**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.8**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**16.6**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**292**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**5.6**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**3,310**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**16.1**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**5.5**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**18.8**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**15,600**	
3050B	11/16/12	200.8	11/30/12	**7439-92-1**	**Lead**	0.23	0.5	**309**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**3,700**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.097	0.2	**1,050**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.064**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**15.6**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**1,370**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.2**	
3050B	11/16/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**130**	
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**18.7**	
3050B	11/16/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.7	20	**340**	

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: SA7-2C
SAMPLE

Lab Sample ID: VR35K
LIMS ID: 12-22235
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.5	10	**8,140**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.084	0.2	**8.8**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**99.4**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.3**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**5.8**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.5	10	**5,160**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**18.1**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**5.6**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**18.7**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**15,700**	
3050B	11/16/12	200.8	11/30/12	**7439-92-1**	**Lead**	0.23	0.5	**314**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**4,440**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.096	0.2	**362**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.075**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.047	0.5	**14.3**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**2,370**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.3**	
3050B	11/16/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.5	120	**160**	
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.016	0.2	**23.0**	
3050B	11/16/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.6	20	**400**	

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: SA7-3C
SAMPLE

Lab Sample ID: VR35L
LIMS ID: 12-22236
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.8	10	**10,500**	
3050B	11/16/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.7**	
3050B	11/16/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.087	0.2	**29.5**	
3050B	11/16/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**120**	
3050B	11/16/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/16/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**6.8**	
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.7	10	**1,960**	
3050B	11/16/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.038	0.5	**10.3**	
3050B	11/16/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.032	0.2	**3.4**	
3050B	11/16/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.036	0.5	**30.1**	
3050B	11/16/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**11,200**	
3050B	11/16/12	200.8	11/30/12	**7439-92-1**	**Lead**	0.24	0.5	**637**	
3050B	11/16/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**2,550**	
3050B	11/16/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.099	0.2	**364**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.091**	
3050B	11/16/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.049	0.5	**9.8**	
3050B	11/16/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**860**	
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.5**	
3050B	11/16/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**140**	
3050B	11/16/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/16/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**17.5**	
3050B	11/16/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.34	4	**285**	

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: LAB CONTROL

Lab Sample ID: VR35LCS
LIMS ID: 12-22226
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-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	196	200	98.0%	
Antimony	200.8	24.2	25.0	96.8%	
Arsenic	200.8	25.1	25.0	100%	
Barium	6010C	200	200	100%	
Beryllium	200.8	23.7	25.0	94.8%	
Cadmium	200.8	24.7	25.0	98.8%	
Calcium	6010C	948	1000	94.8%	
Chromium	200.8	24.0	25.0	96.0%	
Cobalt	200.8	23.3	25.0	93.2%	
Copper	200.8	25.8	25.0	103%	
Iron	6010C	196	200	98.0%	
Lead	200.8	24.5	25.0	98.0%	
Magnesium	6010C	987	1000	98.7%	
Manganese	6010C	48.9	50.0	97.8%	
Mercury	7471A	0.131	0.143	91.6%	
Nickel	200.8	25.9	25.0	104%	
Potassium	6010C	960	1000	96.0%	
Selenium	200.8	84.6	80.0	106%	
Silver	200.8	24.1	25.0	96.4%	
Sodium	6010C	980	1000	98.0%	
Thallium	200.8	23.6	25.0	94.4%	
Vanadium	200.8	22.5	25.0	90.0%	
Zinc	200.8	80	80	100%	

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: VR35MB
LIMS ID: 12-22226
Matrix: Soil
Data Release Authorized:
Reported: 12/10/12

QC Report No: VR35-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	11/16/12	6010C	11/19/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/16/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/16/12	200.8	11/28/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/16/12	6010C	11/19/12	**7440-70-2**	**Calcium**	1.9	5	**7**	
3050B	11/16/12	200.8	11/28/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/16/12	6010C	11/19/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/16/12	200.8	11/28/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/16/12	6010C	11/19/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/16/12	6010C	11/19/12	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	11/16/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/16/12	200.8	11/28/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/16/12	6010C	11/19/12	7440-09-7	Potassium	17	50	50	U
3050B	11/16/12	200.8	11/28/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/16/12	200.8	11/28/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/16/12	6010C	11/19/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/16/12	200.8	11/28/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/16/12	200.8	11/28/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/16/12	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: VR35

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP111971	2000.0	2029.72	**101.5**	2000.0	2006.35	**100.3**	1980.16	**99.0**	1980.99	**99.0**	1958.39	**97.9**	1953.91	**97.7**
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	IP111971	1000.0	1020.70	**102.1**	1000.0	1006.35	**100.6**	1000.73	**100.1**	989.79	**99.0**	965.81	**96.6**	968.28	**96.8**
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	IP111971	2000.0	1944.24	**97.2**	2000.0	2038.09	**101.9**	2019.70	**101.0**	2067.44	**103.4**	1994.66	**99.7**	1995.68	**99.8**
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	IP111971	2000.0	2055.51	**102.8**	2000.0	2061.92	**103.1**	2036.61	**101.8**	2069.18	**103.5**	2057.67	**102.9**	2037.40	**101.9**
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	IP111971	2000.0	2028.60	**101.4**	2000.0	2013.75	**100.7**	1991.31	**99.6**	2003.63	**100.2**	1961.53	**98.1**	1950.43	**97.5**
Manganese	MN	ICP	IP111971	1000.0	995.60	**99.6**	1000.0	1035.71	**103.6**	1025.82	**102.6**	1040.95	**104.1**	1028.81	**102.9**	1011.71	**101.2**
Mercury	HG	CVA	HG111701	8.0	7.26	**90.8**	4.0	3.69	**92.3**	3.65	**91.3**	1.76	**44.0**	3.63	**90.8**	3.59	**89.8**
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	IP111971	20000.0	20061.83	**100.3**	20000.0	19907.72	**99.5**	19674.12	**98.4**	20091.98	**100.5**	19700.75	**98.5**	19363.25	**96.8**
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	IP111971	50000.0	52246.58	**104.5**	50000.0	51334.92	**102.7**	50887.90	**101.8**	51758.68	**103.5**	51022.02	**102.0**	49343.22	**98.7**
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**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP111971	2000.0	1926.24	**96.3**	1937.58	**96.9**	1945.10	**97.3**	1947.17	**97.4**	1947.79	**97.4**	1969.56	**98.5**
Antimony	SB	PMS	MS112811	50.0	49.97	**99.9**	50.35	**100.7**	49.56	**99.1**	49.70	**99.4**	50.48	**101.0**	50.60	**101.2**
Arsenic	AS	PMS	MS112811	50.0	49.93	**99.9**	49.80	**99.6**	49.18	**98.4**	50.03	**100.1**	51.10	**102.2**	50.60	**101.2**
Barium	BA	ICP	IP111971	1000.0	982.42	**98.2**	987.75	**98.8**	994.25	**99.4**	995.17	**99.5**	992.05	**99.2**	1005.19	**100.5**
Beryllium	BE	PMS	MS112811	50.0	50.18	**100.4**	49.57	**99.1**	49.43	**98.9**	50.50	**101.0**	51.20	**102.4**	49.81	**99.6**
Cadmium	CD	PMS	MS112811	50.0	50.41	**100.8**	50.88	**101.8**	50.02	**100.0**	49.72	**99.4**	51.14	**102.3**	50.61	**101.2**
Calcium	CA	ICP	IP111971	2000.0	1972.78	**98.6**	1898.29	**94.9**	1981.89	**99.1**	1887.79	**94.4**	1864.84	**93.2**	1891.51	**94.6**
Chromium	CR	PMS	MS112811	50.0	49.79	**99.6**	49.16	**98.3**	48.50	**97.0**	47.91	**95.8**	47.81	**95.6**	48.10	**96.2**
Cobalt	CO	PMS	MS112811	50.0	49.20	**98.4**	48.58	**97.2**	48.08	**96.2**	47.38	**94.8**	47.36	**94.7**	47.18	**94.4**
Copper	CU	PMS	MS112811	50.0	51.00	**102.0**	50.31	**100.6**	49.21	**98.4**	50.76	**101.5**	51.33	**102.7**	50.56	**101.1**
Iron	FE	ICP	IP111971	2000.0	1950.58	**97.5**	1976.71	**98.8**	1957.96	**97.9**	1968.56	**98.4**	1951.87	**97.6**	1985.46	**99.3**
Lead	PB	PMS	MS112811	50.0	47.41	**94.8**	48.43	**96.9**	47.26	**94.5**	47.23	**94.5**	48.64	**97.3**	48.69	**97.4**
Magnesium	MG	ICP	IP111971	2000.0	1927.50	**96.4**	1949.26	**97.5**	1945.12	**97.3**	1944.19	**97.2**	1929.74	**96.5**	1968.26	**98.4**
Manganese	MN	ICP	IP111971	1000.0	987.48	**98.7**	952.36	**95.2**	950.38	**95.0**	954.90	**95.5**	941.58	**94.2**	940.03	**94.0**
Mercury	HG	CVA	HG111701	4.0	3.60	**90.0**	3.64	**91.0**	3.61	**90.3**	3.56	**89.0**	3.71	**92.8**	3.72	**93.0**
Nickel	NI	PMS	MS112811	50.0	50.07	**100.1**	50.48	**101.0**	49.22	**98.4**	50.50	**101.0**	51.04	**102.1**	50.40	**100.8**
Potassium	K	ICP	IP111971	20000.0	19390.61	**97.0**	19208.05	**96.0**	19312.97	**96.6**	19363.29	**96.8**	19289.76	**96.4**	19183.86	**95.9**
Selenium	SE	PMS	MS112811	50.0	51.57	**103.1**	51.25	**102.5**	51.63	**103.3**	52.19	**104.4**	53.22	**106.4**	53.15	**106.3**
Silver	AG	PMS	MS112811	50.0	51.80	**103.6**	52.55	**105.1**	50.40	**100.8**	48.44	**96.9**	49.01	**98.0**	47.65	**95.3**
Sodium	NA	ICP	IP111971	50000.0	49846.59	**99.7**	49505.14	**99.0**	49860.03	**99.7**	50515.18	**101.0**	49655.44	**99.3**	49326.18	**98.7**
Thallium	TL	PMS	MS112811	50.0	45.14	**90.3**	46.14	**92.3**	45.45	**90.9**	45.02	**90.0**	46.38	**92.8**	46.19	**92.4**
Vanadium	V	PMS	MS112811	50.0	48.25	**96.5**	46.66	**93.3**	46.03	**92.1**	45.72	**91.4**	45.98	**92.0**	46.64	**93.3**
Zinc	ZN	PMS	MS112811	50.0	50.66	**101.3**	50.08	**100.2**	48.93	**97.9**	49.56	**99.1**	50.74	**101.5**	50.55	**101.1**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Aluminum	AL	ICP	IP111971	2000.0												
Antimony	SB	PMS	MS112811	50.0	49.85	**99.7**	50.08	**100.2**	50.84	**101.7**						
Arsenic	AS	PMS	MS112811	50.0	50.34	**100.7**	50.29	**100.6**	49.56	**99.1**						
Barium	BA	ICP	IP111971	1000.0												
Beryllium	BE	PMS	MS112811	50.0	49.94	**99.9**	48.83	**97.7**	49.96	**99.9**						
Cadmium	CD	PMS	MS112811	50.0	50.39	**100.8**	50.90	**101.8**	51.57	**103.1**						
Calcium	CA	ICP	IP111971	2000.0												
Chromium	CR	PMS	MS112811	50.0	47.23	**94.5**	47.99	**96.0**	47.58	**95.2**						
Cobalt	CO	PMS	MS112811	50.0	47.52	**95.0**	46.83	**93.7**	45.97	**91.9**						
Copper	CU	PMS	MS112811	50.0	50.43	**100.9**	50.92	**101.8**	49.99	**100.0**						
Iron	FE	ICP	IP111971	2000.0												
Lead	PB	PMS	MS112811	50.0	48.09	**96.2**	47.73	**95.5**	47.92	**95.8**						
Magnesium	MG	ICP	IP111971	2000.0												
Manganese	MN	ICP	IP111971	1000.0												
Mercury	HG	CVA	HG111701	4.0	3.66	**91.5**	3.61	**90.3**	3.55	**88.8**						
Nickel	NI	PMS	MS112811	50.0	51.14	**102.3**	50.36	**100.7**	48.96	**97.9**						
Potassium	K	ICP	IP111971	20000.0												
Selenium	SE	PMS	MS112811	50.0	52.44	**104.9**	52.53	**105.1**	52.09	**104.2**						
Silver	AG	PMS	MS112811	50.0	48.30	**96.6**	47.87	**95.7**	50.24	**100.5**						
Sodium	NA	ICP	IP111971	50000.0												
Thallium	TL	PMS	MS112811	50.0	45.32	**90.6**	45.62	**91.2**	45.64	**91.3**						
Vanadium	V	PMS	MS112811	50.0	45.66	**91.3**	46.41	**92.8**	45.03	**90.1**						
Zinc	ZN	PMS	MS112811	50.0	49.00	**98.0**	50.79	**101.6**	50.80	**101.6**						

VR35 : 9052

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: VR35

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Lead	PB	PMS	MS113011	50.0	48.98	**98.0**	50.0	47.79	**95.6**	47.74	**95.5**	48.64	**97.3**	48.71	**97.4**	50.26	**100.5**
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**

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: VR35

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Lead	PB	PMS	MS113011	50.0	49.12	**98.2**	47.83	**95.7**								
Zinc	ZN	PMS	MS113011	50.0	52.81	**105.6**	52.69	**105.4**								

VR35 00032

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

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	IP111971	50.0	51.13	**102.3**	49.69	**99.4**	53.98	**108.0**	54.95	**109.9**				
Antimony	SB	PMS	MS112811	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS112811	0.2	0.21	**105.0**										
Barium	BA	ICP	IP111971	3.0	3.03	**101.0**	2.30	**76.7**	2.59	**86.3**	2.66	**88.7**				
Beryllium	BE	PMS	MS112811	0.2	0.21	**105.0**										
Cadmium	CD	PMS	MS112811	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP111971	50.0	49.82	**99.6**	48.37	**96.7**	51.24	**102.5**	49.87	**99.7**				
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	IP111971	50.0	54.10	**108.2**	53.38	**106.8**	59.70	**119.4**	60.14	**120.3**				
Lead	PB	PMS	MS112811	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP111971	50.0	48.10	**96.2**	38.39	**76.8**	42.49	**85.0**	45.34	**90.7**				
Manganese	MN	ICP	IP111971	1.0	1.26	**126.0**	1.04	**104.0**	1.30	**130.0**	1.71	**171.0**				
Mercury	HG	CVA	HG111701	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS112811	0.5	0.52	**104.0**										
Potassium	K	ICP	IP111971	500.0	473.53	**94.7**	457.79	**91.6**	438.34	**87.7**	450.02	**90.0**				
Selenium	SE	PMS	MS112811	0.5	0.56	**112.0**										
Silver	AG	PMS	MS112811	0.2	0.21	**105.0**										
Sodium	NA	ICP	IP111971	500.0	495.62	**99.1**	485.32	**97.1**	492.87	**98.6**	481.01	**96.2**				
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.

FORM II (2)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VR35

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	MS113011		0.1	0.10	**100.0**										
Zinc	ZN	PMS	MS113011		4.0	4.57	**114.3**										

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: VR35

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP111971	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	IP111971	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	IP111971	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	IP111971	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	IP111971	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	IP111971	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	HG111701	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	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	IP111971	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	IP111971	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

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP111971	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	IP111971	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	IP111971	5000.0	50.0	50.0	U	50.0	U	50.5	B	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	IP111971	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	IP111971	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	IP111971	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	HG111701	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	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	IP111971	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	IP111971	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

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Aluminum	AL	ICP	IP111971	200.0	50.0												
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	IP111971	200.0	3.0												
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	IP111971	5000.0	50.0												
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	IP111971	100.0	50.0												
Lead	PB	PMS	MS112811	3.0	0.1	0.1	U	0.1	U	0.1	U						
Magnesium	MG	ICP	IP111971	5000.0	50.0												
Manganese	MN	ICP	IP111971	15.0	1.0												
Mercury	HG	CVA	HG111701	0.2	0.1	0.1	U	0.1	U								
Nickel	NI	PMS	MS112811	40.0	0.5	0.5	U	0.5	U	0.5	U						
Potassium	K	ICP	IP111971	5000.0	500.0												
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	IP111971	5000.0	500.0												
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						

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Lead	PB	PMS	MS113011	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
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

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Lead	PB	PMS	MS113011	3.0	0.1	0.1	U	0.1	U								
Zinc	ZN	PMS	MS113011	20.0	4.0	4.0	U	4.0	U								

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP111971

SDG: VR35

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	198717.9	197872.1	**98.9**	194148.8	192173.2	**96.1**	190633.4	189329.2	**94.7**
Antimony		1000	7.8	1015.0	**101.5**	7.0	989.7	**99.0**	1.1	967.2	**96.7**
Arsenic		1000	16.2	1045.4	**104.5**	16.1	1022.4	**102.2**	17.5	996.6	**99.7**
Barium		1000	-1.3	1004.2	**100.4**	-1.8	963.2	**96.3**	-1.0	988.0	**98.8**
Beryllium		1000	0.1	1002.5	**100.3**	0.0	996.3	**99.6**	0.0	958.3	**95.8**
Boron			0.0	-1.1		-2.0	-1.8		-3.0	-2.2	
Cadmium		1000	-0.1	1034.3	**103.4**	-0.6	1009.5	**101.0**	-0.3	976.0	**97.6**
Calcium	100000	100000	98160.2	99077.3	**99.1**	96458.4	97098.0	**97.1**	94915.9	95918.1	**95.9**
Chromium		1000	-0.3	1022.0	**102.2**	1.5	996.8	**99.7**	1.8	985.3	**98.5**
Cobalt		1000	-0.5	999.4	**99.9**	-0.5	949.3	**94.9**	-0.5	939.3	**93.9**
Copper		1000	-0.7	1028.1	**102.8**	-1.2	1004.4	**100.4**	-0.7	993.2	**99.3**
Iron	200000	200000	195077.3	196698.8	**98.3**	194089.7	194452.0	**97.2**	183591.0	185438.8	**92.7**
Lead		1000	2.3	992.7	**99.3**	1.7	969.7	**97.0**	0.4	947.6	**94.8**
Magnesium	100000	100000	102497.2	99068.4	**99.1**	99965.8	96590.8	**96.6**	98454.6	95101.3	**95.1**
Manganese		1000	1.2	981.8	**98.2**	0.9	968.1	**96.8**	1.0	925.7	**92.6**
Molybdenum			1.4	1.3		0.9	1.2		0.8	1.3	
Nickel		1000	0.9	979.9	**98.0**	1.8	956.6	**95.7**	1.6	957.6	**95.8**
Potassium			4.3	-55.6		-19.3	-77.0		-27.7	-71.0	
Selenium		1000	13.5	1028.1	**102.8**	9.1	1012.1	**101.2**	11.2	978.9	**97.9**
Silicon			-1.6	1.1		-2.3	-3.4		-2.4	0.6	
Silver		1000	-1.1	1011.9	**101.2**	-1.4	980.0	**98.0**	-1.0	982.8	**98.3**
Sodium			16.8	31.1		24.4	36.7		29.1	36.2	
Strontium			4.1	4.0		3.9	3.9		3.9	3.8	
Thallium		1000	-5.6	940.0	**94.0**	-5.7	916.8	**91.7**	-6.5	917.0	**91.7**
Tin			-5.6	-5.7		-4.3	-4.4		-5.7	-5.4	
Titanium			1.3	0.9		1.1	0.6		1.1	0.7	
Vanadium		1000	6.2	983.4	**98.3**	6.5	958.1	**95.8**	4.7	947.8	**94.8**
Zinc		1000	3.7	984.5	**98.5**	3.3	965.7	**96.6**	3.6	947.5	**94.8**

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS112811

SDG: VR35

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**						

VR35 SDG

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS113011

SDG: VR35

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**						

VR35 : 66615

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR35

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA6-4P-1(0 to 3A	VR35APOST	MS112811	482.16	B	7.40	B	500	Soil	**95.0**
Manganese	SA6-4P-1(0 to 3A	VR35APOST	IP111971	6169.38		3945.80		2000	Soil	**111.2**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VR35

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	26861.94		27122.00		1.0	
Barium	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	199.78	B	205.85	B	3.0	
Calcium	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	5269.09		5406.70	B	2.6	
Iron	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	34894.53		35356.60		1.3	
Magnesium	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	7788.99		7920.20	B	1.7	
Manganese	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	789.16		797.80		1.1	
Potassium	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	2421.44	B	2500.00	U	100.0	
Sodium	SA6-4P-1(0 to 3L	VR35A-L	Soil	IP111971	293.89	U	2500.00	U		

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR35

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	0.37	B	0.50	B	35.1	
Arsenic	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	9.22	B	9.70	B	5.2	
Beryllium	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	0.23	B	0.25	B	8.7	
Cadmium	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	2.31	B	2.40	B	3.9	
Chromium	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	7.57	B	7.35	B	2.9	
Cobalt	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	2.30	B	2.30	B	0.0	
Copper	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	8.38	B	8.65	B	3.2	
Lead	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	110.28		103.75		5.9	
Nickel	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	7.33	B	7.75	B	5.7	
Selenium	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	0.13	U	0.35	B		
Silver	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	0.12	U	0.15	B		
Thallium	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	0.15	U	0.15	B		
Vanadium	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	10.27	B	10.40	B	1.3	
Zinc	SA6-4P-1(0 to 3L	VR35A-L	Soil	MS112811	108.99		124.40		14.1	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35 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: VR35

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: VR35

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: VR35

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/16/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA6-4P-1(0 to 3	VR35A	1.047	0.0	50.0
SA6-4P-1(0 to 3D	VR35ADUP	1.051	0.0	50.0
SA6-4P-1(0 to 3S	VR35ASPK	1.046	0.0	50.0
SA6-4P-2(3 to 6	VR35B	1.073	0.0	50.0
SA6-4P-3(6 to 12	VR35C	1.074	0.0	50.0
SA6-4P-4(12 to 24	VR35D	1.042	0.0	50.0
SA6-5C	VR35E	1.024	0.0	50.0
SA6-6C	VR35F	1.023	0.0	50.0
SA6-7C	VR35G	1.017	0.0	50.0
SA6-8C	VR35H	1.091	0.0	50.0
SA6-Field Duplicat	VR35I	1.033	0.0	50.0
SA7-1C	VR35J	1.053	0.0	50.0
SA7-2C	VR35K	1.063	0.0	50.0
SA7-3C	VR35L	1.027	0.0	50.0
PBS	VR35MB1	1.000	0.0	50.0
LCSS	VR35MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/16/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA6-4P-1(0 to 3	VR35A	1.028	0.0	50.0
SA6-4P-1(0 to 3D	VR35ADUP	1.027	0.0	50.0
SA6-4P-1(0 to 3S	VR35ASPK	1.024	0.0	50.0
SA6-4P-2(3 to 6	VR35B	1.029	0.0	50.0
SA6-4P-3(6 to 12	VR35C	1.027	0.0	50.0
SA6-4P-4(12 to 24	VR35D	1.069	0.0	50.0
SA6-5C	VR35E	1.029	0.0	50.0
SA6-6C	VR35F	1.038	0.0	50.0
SA6-7C	VR35G	1.016	0.0	50.0
SA6-8C	VR35H	1.042	0.0	50.0
SA6-Field Duplicat	VR35I	1.096	0.0	50.0
SA7-1C	VR35J	1.050	0.0	50.0
SA7-2C	VR35K	1.054	0.0	50.0
SA7-3C	VR35L	1.017	0.0	50.0
PBS	VR35MB1	1.000	0.0	50.0
LCSS	VR35MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/16/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA6-4P-1(0 to 3	VR35A	0.749	0.0	50.0
SA6-4P-1(0 to 3D	VR35ADUP	0.745	0.0	50.0
SA6-4P-1(0 to 3S	VR35ASPK	0.749	0.0	50.0
SA6-4P-2(3 to 6	VR35B	0.746	0.0	50.0
SA6-4P-3(6 to 12	VR35C	0.740	0.0	50.0
SA6-4P-4(12 to 24	VR35D	0.728	0.0	50.0
SA6-5C	VR35E	0.750	0.0	50.0
SA6-6C	VR35F	0.732	0.0	50.0
SA6-7C	VR35G	0.729	0.0	50.0
SA6-8C	VR35H	0.709	0.0	50.0
SA6-Field Duplicat	VR35I	0.732	0.0	50.0
SA7-1C	VR35J	0.750	0.0	50.0
SA7-2C	VR35K	0.748	0.0	50.0
SA7-3C	VR35L	0.731	0.0	50.0
PBS	VR35MB1	0.700	0.0	50.0
LCSW	VR35MB1SPK	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: 11/19/2012

SDG: VR35 RUNID: IP111971 METHOD: ICP END DATE: 11/19/2012

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	09395			X			X		X					X		X	X	X		X											
S2	S2	1.00	09441						X											X													
S3	S3	1.00	09460																														
S4	S4	1.00	09483																														
S5	S5	1.00	09504			X					X					X		X	X			X											
ICV	ICV	1.00	09535			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	09580			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	10021			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	10063			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	10104			X			X		X					X		X	X	X		X											
ZZZZZZ	HiPur	1.00	10154																														
ZZZZZZ	SpexQC	1.00	10195																														
ZZZZZZ	DICheck	1.00	10241																														
CCV	CCV1	1.00	10282			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	10324			X			X		X					X		X	X	X		X											
ZZZZZZ	HiPur	1.00	10525																														
ZZZZZZ	SpexQC	1.00	10571																														
CCV	CCV2	1.00	11012			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	11054			X			X		X					X		X	X	X		X											
ZZZZZZ	VS75MB	1.00	11140																														
ZZZZZZ	VS67MB	5.00	11182																														
ZZZZZZ	VS75A	1.00	11225																														
ZZZZZZ	VS75B	1.00	11265																														
ZZZZZZ	VS67B	5.00	11310																														
ZZZZZZ	VS67ADUP	5.00	11354																														
ZZZZZZ	VS67A	5.00	11401																														
ZZZZZZ	VS67ASPK	5.00	11442																														
ZZZZZZ	VS75MBSPK	1.00	11490																														
CCV	CCV3	1.00	11530			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	11572			X			X		X					X		X	X	X		X											
ZZZZZZ	VR36E	5.00	12014																														
ZZZZZZ	VR36F	5.00	12054																														
ZZZZZZ	VR36G	5.00	12094																														
ZZZZZZ	VR36H	5.00	12134																														
ZZZZZZ	VR36I	5.00	12174																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia   INSTRUMENT ID: OPTIMA ICP 2   START DATE: 11/19/2012

SDG: VR35   RUNID: IP111971   METHOD: ICP   END DATE: 11/19/2012

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	VR36J	5.00	12214																														
ZZZZZZ	VR36K	5.00	12254																														
ZZZZZZ	VR36L	5.00	12294																														
CCV	CCV4	1.00	12334			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	12380			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	12421			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	12463			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	12504			X			X		X					X		X	X	X		X											
CCV	CCV5	1.00	12543			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	12585			X			X		X					X		X	X	X		X											
ZZZZZZ	VS62MB1	1.00	13031																														
ZZZZZZ	VS62A	1.00	13072																														
ZZZZZZ	VS62B	1.00	13114																														
ZZZZZZ	VS62C	1.00	13160																														
ZZZZZZ	VS62MB1SPK	1.00	13202																														
CCV	CCV6	1.00	13242			X			X		X					X		X	X	X		X											
CCB	CCB6	1.00	13283			X			X		X					X		X	X	X		X											
ZZZZZZ	VS95MB	1.00	13340																														
ZZZZZZ	VS91MB1	5.00	13382																														
ZZZZZZ	VS91B	5.00	13430																														
ZZZZZZ	VS91ADUP	5.00	13473																														
ZZZZZZ	VS91A	5.00	13514																														
ZZZZZZ	VS91ASPK	5.00	13560																														
ZZZZZZ	VS95ADUP	1.00	14002																														
ZZZZZZ	VS95A	1.00	14043																														
ZZZZZZ	VS95ASPK	1.00	14085																														
ZZZZZZ	VS95MBSPK	1.00	14125																														
CCV	CCV7	1.00	14165			X			X		X					X		X	X	X		X											
CCB	CCB7	1.00	14220			X			X		X					X		X	X	X		X											
ZZZZZZ	VS91MB2	5.00	14261																														
ZZZZZZ	VS91C	5.00	14303																														
ZZZZZZ	VS91D	5.00	14350																														
ZZZZZZ	VS91E	5.00	14393																														
ZZZZZZ	VS91F	5.00	14440																														
ZZZZZZ	VS91G	5.00	14484																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/19/2012

SDG: VR35 | RUNID: IP111971 | METHOD: ICP | END DATE: 11/19/2012

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	VS91H	5.00	14525																														
CCV	CCV8	1.00	14571			X			X		X					X		X	X	X		X											
CCB	CCB8	1.00	15022			X			X		X					X		X	X	X		X											
PBS	VR35MB1	2.00	15063			X			X		X					X		X	X	X		X											
SA6-4P-2(3 to 6	VR35B	5.00	15105			X			X		X					X		X	X	X		X											
SA6-4P-3(6 to 12	VR35C	5.00	15145			X			X		X					X		X	X	X		X											
SA6-4P-4(12 to 24	VR35D	5.00	15185			X			X		X					X		X	X	X		X											
SA6-4P-1(0 to 3L	VR35A-L	25.00	15225			X			X		X					X		X	X	X		X											
SA6-4P-1(0 to 3	VR35A	5.00	15265			X			X		X					X		X	X	X		X											
SA6-4P-1(0 to 3D	VR35ADUP	5.00	15305			X			X		X					X		X	X	X		X											
SA6-4P-1(0 to 3S	VR35ASPK	5.00	15344			X			X		X					X		X	X	X		X											
SA6-4P-1(0 to 3A	VR35APOST	5.00	15384																	X													
LCSS	VR35MB1SPK	2.00	15425			X			X		X					X		X	X	X		X											
CCV	CCV9	1.00	15465			X			X		X					X		X	X	X		X											
CCB	CCB9	1.00	15515			X			X		X					X		X	X	X		X											
SA6-5C	VR35E	5.00	15561			X			X		X					X		X	X	X		X											
SA6-6C	VR35F	5.00	16001			X			X		X					X		X	X	X		X											
SA6-7C	VR35G	5.00	16041			X			X		X					X		X	X	X		X											
SA6-8C	VR35H	5.00	16081			X			X		X					X		X	X	X		X											
SA6-Field Duplicat	VR35I	5.00	16121			X			X		X					X		X	X	X		X											
SA7-1C	VR35J	5.00	16161			X			X		X					X		X	X	X		X											
SA7-2C	VR35K	5.00	16201			X			X		X					X		X	X	X		X											
SA7-3C	VR35L	5.00	16241			X			X		X					X		X	X	X		X											
ZZZZZZ	VR37B	5.00	16281																														
CCV	CCV10	1.00	16321			X			X		X					X		X	X	X		X											
CCB	CCB10	1.00	16370			X			X		X					X		X	X	X		X											
CRI	CRIF1	1.00	16412			X			X		X					X		X	X	X		X											
ICSA	ICSAF1	1.00	16453			X			X		X					X		X	X	X		X											
ICSAB	ICSABF1	1.00	16495			X			X		X					X		X	X	X		X											
CCV	CCV11	1.00	16534			X			X		X					X		X	X	X		X											
CCB	CCB11	1.00	16585			X			X		X					X		X	X	X		X											

VR35 6985

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

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		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 sampl	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: VR35   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
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: VR35 | 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																														
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
ZZZZZZ	VS22D	20.00	16160																														
ZZZZZZ	VS22E	20.00	16200																														
ZZZZZZ	VS22F	20.00	16250																														
ZZZZZZ	VS22G	20.00	16290																														
ZZZZZZ	VS22H	20.00	16330																														
ZZZZZZ	VS22I	20.00	16370																														
ZZZZZZ	VS22J	20.00	16420																														
ZZZZZZ	VS22K	20.00	16460																														
ZZZZZZ	VS22L	20.00	16500																														
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
ZZZZZZ	VS45MB1	2.00	17090																														
ZZZZZZ	VS45MB1SPK	2.00	17130																														
ZZZZZZ	VS45A-L	10.00	17180																														
ZZZZZZ	VS45A	2.00	17230																														
ZZZZZZ	VS45ADUP	2.00	17270																														
ZZZZZZ	VS45ASPK	2.00	17310																														
ZZZZZZ	ZZZZZZ	2.00	17350																														
ZZZZZZ	VS45C	2.00	17390																														
ZZZZZZ	VS45D	2.00	17430																														
ZZZZZZ	VS45E	2.00	17470																														
CCV	MCCV9	1.00	17510		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB9	1.00	17580		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS61MB1	2.00	18020																														
ZZZZZZ	VS61MB1SPK	2.00	18070																														
ZZZZZZ	VS61A-L	10.00	18120																														
ZZZZZZ	VS61A	2.00	18160																														

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: VR35 | 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	VS61ADUP	2.00	18200																														
ZZZZZZ	VS61ASPK	2.00	18240																														
ZZZZZZ	ZZZZZZ	2.00	18280																														
ZZZZZZ	VS45F	2.00	18320																														
ZZZZZZ	VS61B	2.00	18370																														
ZZZZZZ	VS61C	2.00	18410																														
CCV	MCCV10	1.00	18450		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB10	1.00	18520		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS80MB1	2.00	18560																														
ZZZZZZ	VS80MB1SPK	2.00	19000																														
ZZZZZZ	VS80A-L	10.00	19050																														
ZZZZZZ	VS80A	2.00	19090																														
ZZZZZZ	VS80ADUP	2.00	19130																														
ZZZZZZ	VS80ASPK	2.00	19180																														
ZZZZZZ	ZZZZZZ	2.00	19220																														
ZZZZZZ	VS80B	2.00	19260																														
ZZZZZZ	VS80C	2.00	19300																														
CCV	MCCV11	1.00	19340		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB11	1.00	19410		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS65MB	2.00	19450																														
ZZZZZZ	VS65MBSPK	2.00	19490																														
ZZZZZZ	VS65A	2.00	19530																														
ZZZZZZ	VS65D	2.00	19590																														
ZZZZZZ	VS65E	2.00	20030																														
ZZZZZZ	VS65G	2.00	20070																														
ZZZZZZ	VS65H	2.00	20110																														
ZZZZZZ	VS65J	2.00	20150																														
CCV	MCCV12	1.00	20190		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB12	1.00	20260		X		X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VR35MB1	20.00	20300		X		X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VR35MB1SPK	20.00	20340		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-4P-1(0 to 3L	VR35A-L	100.00	20380		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-4P-1(0 to 3	VR35A	20.00	20430		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-4P-1(0 to 3D	VR35ADUP	20.00	20470		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-4P-1(0 to 3S	VR35ASPK	20.00	20520		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: NEXION 300D MS | START DATE: 11/28/2012

SDG: VR35 | 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
SA6-4P-1(0 to 3A	VR35APOST	20.00	20560																						X								
SA6-4P-2(3 to 6	VR35B	20.00	21000		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-4P-3(6 to 12	VR35C	20.00	21040		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-4P-4(12 to 24	VR35D	20.00	21080		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV13	1.00	21130		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB13	1.00	21190		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-5C	VR35E	20.00	21240		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-6C	VR35F	20.00	21280		X		X			X		X	X	X	X								X		X	X				X		X	
SA6-7C	VR35G	20.00	21320		X		X			X		X	X	X	X								X		X	X				X		X	
SA6-8C	VR35H	20.00	21360		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA6-Field Duplicat	VR35I	20.00	21400		X		X			X		X	X	X	X								X		X	X				X		X	
SA7-1C	VR35J	20.00	21450		X		X			X		X	X	X	X								X		X	X				X		X	
SA7-2C	VR35K	20.00	21490		X		X			X		X	X	X	X								X		X	X				X		X	
SA7-3C	VR35L	20.00	21530		X		X			X		X	X	X	X								X		X	X				X		X	X
CCV	MCCV14	1.00	21580		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB14	1.00	22050		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: VR35 | 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									X
S1	S1	1.00	10140																					X									X
S2	S2	1.00	10180																					X									X
S3	S3	1.00	10230																					X									X
S4	S4	1.00	10270																					X									X
S5	S5	1.00	10340																														
ZZZZZZ	Rinse sampl	1.00	10410																														
ICV	MICV	1.00	10500																					X									X
ICB	ICB	1.00	10570																					X									X
CCV	MCCV1	1.00	11010																					X									X
CCB	CCB1	1.00	11080																					X									X
CRI	MCRI	1.00	11120																					X									X
ICSA	ICSAI	1.00	11160																					X									X
ICSAB	ICSABI	1.00	11230																					X									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									X
CCB	CCB2	1.00	12070																					X									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									X
CCB	CCB3	1.00	13040																					X									X
ZZZZZZ	VR67RMB	2.00	13090																														
ZZZZZZ	VR67RMBSPK	2.00	13130																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/30/2012

SDG: VR35 | 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									X
CCB	CCB4	1.00	13590																					X									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									X
CCB	CCB5	1.00	15040																					X									X
ZZZZZZ	VS22A-L	500.00	15220																														
ZZZZZZ	VS22A	100.00	15270																														
ZZZZZZ	VS22ADUP	100.00	15310																														
ZZZZZZ	VS22ASPK	100.00	15350																														
ZZZZZZ	ZZZZZZ	100.00	15390																														
ZZZZZZ	VS22G	100.00	15430																														
ZZZZZZ	VS22J	100.00	15480																														
SA6-6C	VR35F	100.00	15520																					X									X
SA6-7C	VR35G	100.00	15570																					X									X
SA6-Field Duplicat	VR35I	100.00	16010																					X									X
CCV	MCCV6	1.00	16060																					X									X
CCB	CCB6	1.00	16130																					X									X
ZZZZZZ	VS82MB1	20.00	16310																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR35

INSTRUMENT ID: NEXION 300D MS

RUNID: MS113011 METHOD: PMS

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
ZZZZZZ	VS82MB1SPK	20.00	16350																														
ZZZZZZ	VS82C-L	100.00	16390																														
ZZZZZZ	VS82C	20.00	16430																														
ZZZZZZ	VS82CDUP	20.00	16470																														
ZZZZZZ	VS82CSPK	20.00	16520																														
ZZZZZZ	VS82CPOST	20.00	16560																														
SA7-1C	VR35J	100.00	17000																					X									X
SA7-2C	VR35K	100.00	17040																					X									X
SA7-3C	VR35L	100.00	17090																					X									
CCV	MCCV7	1.00	17140																					X									X
CCB	CCB7	1.00	17210																					X									X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR35 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	06462														X																
S0.1	S0.1	1.00	06475														X																
S0.5	S0.5	1.00	06493														X																
S1	S1	1.00	06511														X																
S2	S2	1.00	06524														X																
S5	S5	1.00	06542														X																
S10	S10	1.00	06560														X																
ICV	AICV	1.00	07050														X																
ICB	ICB	1.00	07063														X																
CCV	ACCV1	1.00	07081														X																
CCB	CCB1	1.00	07095														X																
CRA	CRA	1.00	07113														X																
ZZZZZZ	VS18MB1	1.00	07130																														
ZZZZZZ	VS18MB1SPK	1.00	07144																														
ZZZZZZ	VS18A	1.00	07161																														
ZZZZZZ	VS18ADUP	1.00	07175																														
ZZZZZZ	VS18ASPK	1.00	07193																														
ZZZZZZ	VS18B	1.00	07210																														
ZZZZZZ	VS18C	1.00	07224																														
ZZZZZZ	VS18D	1.00	07242																														
ZZZZZZ	VS18E	1.00	07260																														
CCV	ACCV2	1.00	07274														X																
CCB	CCB2	1.00	07292														X																
ZZZZZZ	VS18F	1.00	07310																														
ZZZZZZ	VS18G	1.00	07323																														
ZZZZZZ	VS18H	1.00	07341																														
ZZZZZZ	VS18I	1.00	07354																														
ZZZZZZ	VS18J	1.00	07372																														
ZZZZZZ	VS18K	1.00	07385																														
ZZZZZZ	VS18L	1.00	07403																														
ZZZZZZ	VR37MB1	1.00	07421																														
ZZZZZZ	VR37MB1SPK	1.00	07434																														
ZZZZZZ	VR37A	1.00	07452																														
CCV	ACCV3	1.00	07470														X																
CCV	ACCV4	1.00	07584														X																

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Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR35 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	08002														X																
ZZZZZZ	VS18F	1.00	08020																														
ZZZZZZ	VS18G	1.00	08033																														
ZZZZZZ	VS18H	1.00	08051																														
ZZZZZZ	VS18I	1.00	08064																														
ZZZZZZ	VS18J	1.00	08082																														
ZZZZZZ	VS18K	1.00	08095																														
ZZZZZZ	VS18L	1.00	08113																														
ZZZZZZ	VR37MB1	1.00	08131																														
ZZZZZZ	VR37MB1SPK	1.00	08144																														
ZZZZZZ	VR37A	1.00	08162																														
CCV	ACCV5	1.00	08180														X																
CCB	CCB4	1.00	08194														X																
ZZZZZZ	VR37ADUP	1.00	08212																														
ZZZZZZ	VR37ASPK	1.00	08230																														
ZZZZZZ	VR37B	1.00	08243																														
ZZZZZZ	VR37C	1.00	08261																														
ZZZZZZ	VR37D	1.00	08274																														
ZZZZZZ	VR37E	1.00	08292																														
ZZZZZZ	VR37F	1.00	08310																														
ZZZZZZ	VR37G	1.00	08323																														
ZZZZZZ	VR37H	1.00	08341																														
ZZZZZZ	VR37I	1.00	08355																														
CCV	ACCV6	1.00	08373														X																
CCB	CCB5	1.00	08391														X																
ZZZZZZ	VR37J	1.00	08404																														
ZZZZZZ	VR37K	1.00	08422																														
ZZZZZZ	VR37L	1.00	08440																														
ZZZZZZ	VR37M	1.00	08454																														
ZZZZZZ	VR37N	1.00	08472																														
ZZZZZZ	VR37O	1.00	08485																														
ZZZZZZ	VR58MB1	1.00	08503																														
ZZZZZZ	VR58MB1SPK	1.00	08520																														
ZZZZZZ	VR58A	1.00	08534																														
ZZZZZZ	VR58ADUP	1.00	08552																														

FORM XIV

VR35 0071

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR35 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	ACCV7	1.00	08565														X																
CCB	CCB6	1.00	08584														X																
ZZZZZZ	VR58ASPK	1.00	09001																														
ZZZZZZ	VR58B	1.00	09015																														
ZZZZZZ	VR58C	1.00	09033																														
ZZZZZZ	VR58D	1.00	09051																														
ZZZZZZ	VR58E	1.00	09065																														
ZZZZZZ	VR58F	1.00	09082																														
ZZZZZZ	VR58G	1.00	09100																														
ZZZZZZ	VR58H	1.00	09114																														
ZZZZZZ	VR58I	1.00	09131																														
ZZZZZZ	VR58J	1.00	09145																														
CCV	ACCV8	1.00	09163														X																
CCB	CCB7	1.00	09181														X																
ZZZZZZ	VR82A	1.00	09195																														
ZZZZZZ	VR82B	1.00	09213																														
ZZZZZZ	VR82C	1.00	09230																														
ZZZZZZ	VR82D	1.00	09244																														
ZZZZZZ	VR82E	1.00	09262																														
ZZZZZZ	VR82F	1.00	09280																														
ZZZZZZ	VR82G	1.00	09294																														
ZZZZZZ	VR82H	1.00	09311																														
ZZZZZZ	VR82I	1.00	09325																														
CCV	ACCV9	1.00	09343														X																
CCB	CCB8	1.00	09361														X																
ZZZZZZ	VR30MB1	1.00	09382																														
ZZZZZZ	VR30MB1SPK	1.00	09395																														
ZZZZZZ	VR30A	1.00	09413																														
ZZZZZZ	VR30ADUP	1.00	09430																														
ZZZZZZ	VR30ASPK	1.00	09444																														
ZZZZZZ	VR30B	1.00	09461																														
ZZZZZZ	VR30C	1.00	09475																														
ZZZZZZ	VR30D	1.00	09492																														
ZZZZZZ	VR30E	1.00	09510																														
ZZZZZZ	VR30F	1.00	09524																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR35 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	ACCV10	1.00	09542														X																
CCB	CCB9	1.00	09560														X																
ZZZZZZ	VR30G	1.00	09574																														
ZZZZZZ	VR30H	1.00	09592																														
ZZZZZZ	VR30I	1.00	10005																														
ZZZZZZ	VR30J	1.00	10023																														
ZZZZZZ	VR30K	1.00	10040																														
ZZZZZZ	VR30L	1.00	10054																														
ZZZZZZ	VR36MB1	1.00	10072																														
ZZZZZZ	VR36MB1SPK	1.00	10085																														
ZZZZZZ	VR36A	1.00	10103																														
ZZZZZZ	VR36ADUP	1.00	10121																														
CCV	ACCV11	1.00	10134														X																
CCB	CCB10	1.00	10152														X																
ZZZZZZ	VR36ASPK	1.00	10170																														
ZZZZZZ	VR36B	1.00	10184																														
ZZZZZZ	VR36C	1.00	10202																														
ZZZZZZ	VR36D	1.00	10220																														
ZZZZZZ	VR36E	1.00	10234																														
ZZZZZZ	VR36F	1.00	10251																														
ZZZZZZ	VR36G	1.00	10265																														
ZZZZZZ	VR36H	1.00	10282																														
ZZZZZZ	VR36I	1.00	10300																														
ZZZZZZ	VR36J	1.00	10314																														
CCV	ACCV12	1.00	10331														X																
CCB	CCB11	1.00	10345														X																
ZZZZZZ	VR36K	1.00	10363																														
ZZZZZZ	VR36L	1.00	10381																														
PBW	VR35MB1	1.00	10395														X																
LCSW	VR35MB1SPK	1.00	10413														X																
SA6-4P-1(0 to 3	VR35A	1.00	10431														X																
SA6-4P-1(0 to 3D	VR35ADUP	1.00	10444														X																
SA6-4P-1(0 to 3S	VR35ASPK	1.00	10462														X																
SA6-4P-2(3 to 6	VR35B	1.00	10480														X																
SA6-4P-3(6 to 12	VR35C	1.00	10493														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia — INSTRUMENT ID: CETAC MERCURY — START DATE: 11/17/2012

SDG: VR35 — RUNID: HG111701 — METHOD: CVA — END DATE: 11/17/2012

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
SA6-4P-4(12 to 24	VR35D	1.00	10511														X																
CCV	ACCV13	1.00	10525														X																
CCB	CCB12	1.00	10543														X																
SA6-5C	VR35E	1.00	10561														X																
SA6-6C	VR35F	1.00	10574														X																
SA6-7C	VR35G	1.00	10592														X																
SA6-8C	VR35H	1.00	11010														X																
SA6-Field Duplicat	VR35I	1.00	11024														X																
SA7-1C	VR35J	1.00	11042														X																
SA7-2C	VR35K	1.00	11060														X																
SA7-3C	VR35L	1.00	11073														X																
CCV	ACCV14	1.00	11091														X																
CCB	CCB13	1.00	11110														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VR35

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-4P-1(0 to 3" depth)
ARI ID: 12-22225 VR35A

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.11
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.60
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.198	4.53

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-4P-2(3 to 6" depth)
ARI ID: 12-22226 VR35B

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.10
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.50
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	3.49

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-4P-3(6 to 12" depth)
ARI ID: 12-22227 VR35C

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.07
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.20
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	0.814

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-4P-4(12 to 24" depth)
ARI ID: 12-22228 VR35D

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.98
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.80
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	0.358

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-5C
ARI ID: 12-22229 VR35E

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.02
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.70
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	2.56

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-6C
ARI ID: 12-22230 VR35F

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.18
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	98.80
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.200	11.2

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/02/12
Date Received: 11/07/12

Client ID: SA6-7C
ARI ID: 12-22231 VR35G

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.30
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	97.70
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	7.92

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA6-8C
ARI ID: 12-22232 VR35H

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.17
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.00
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	9.66

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/02/12
Date Received: 11/07/12

Client ID: SA6-Field Duplicate
ARI ID: 12-22233 VR35I

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.78
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	97.50
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	4.24

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-1C
ARI ID: 12-22234 VR35J

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.65
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	97.90
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	6.63

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-2C
ARI ID: 12-22235 VR35K

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.15
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	98.70
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.020	2.87

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-3C
ARI ID: 12-22236 VR35L

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.48
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	98.60
Total Organic Carbon	11/26/12 112612#1	Plumb,1981	Percent	0.196	8.81

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

MS/MSD RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VR35A Client ID: SA6-4P-1(0 to 3" depth)						
Total Organic Carbon	11/26/12	Percent	4.53	12.7	9.16	89.2%

REPLICATE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VR35A Client ID: SA6-4P-1(0 to 3" depth)					
pH	11/16/12	std units	5.11	5.09	0.02
Total Solids	11/15/12	Percent	99.60	99.60 99.50	0.1%
Total Organic Carbon	11/26/12	Percent	4.53	3.97 3.98	7.7%

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

LAB CONTROL RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

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	11/16/12	std units	6.96	7.00	0.04
Total Organic Carbon Plumb,1981	ICVL	11/26/12	Percent	0.096	0.100	96.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

METHOD BLANK RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/15/12	Percent	< 0.01 U
Total Organic Carbon	11/26/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
VR35-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/27/12

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	11/26/12	Percent	3.06	2.99	102.3%

Total Solids

ARI Job ID: VR35

Solids Data Entry Report Checked by: CB Date: 11/12/12
Date: 11/17/12 Data Analyst: DM

Solids Determination performed on 11/16/12 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VR35	A	SA6-4P-1(0 to 3	0.973	10.250	10.193	99.39
VR35	B	SA6-4P-1(0 to 3	0.983	10.349	10.273	99.19
VR35	C	SA6-4P-1(0 to 3	0.991	10.609	10.560	99.49
VR35	D	SA6-4P-1(0 to 3	0.985	10.461	10.424	99.61
VR35	E	SA6-4P-1(0 to 3	0.987	10.284	10.245	99.58
VR35	F	SA6-4P-1(0 to 3	1.034	10.118	9.951	98.16
VR35	G	SA6-4P-1(0 to 3	0.966	10.441	10.154	96.97
VR35	H	SA6-4P-1(0 to 3	0.971	10.651	10.509	98.53
VR35	I	SA6-4P-1(0 to 3	0.993	10.271	9.995	97.03
VR35	J	SA6-4P-1(0 to 3	0.970	10.727	10.490	97.57
VR35	K	SA6-4P-1(0 to 3	0.984	10.693	10.535	98.37
VR35	L	SA6-4P-1(0 to 3	0.964	10.351	10.181	98.19

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 11-16-12 Time: 1053 Temp: 103°C Analyst: DM

Removed from Oven: Date: 11-17-12 Time: 0805 Temp: 103°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]
VR35 A	0.973	10.250	10.193	—	✓
" B	0.983	10.349	10.273	—	✓
" C	0.991	10.609	10.560	—	✓
" D	0.985	10.461	10.424	—	✓
" E	0.987	10.284	10.245	—	✓
" F	1.034	10.118	9.951	—	✓
" G	0.966	10.441	10.154	—	✓
" H	0.971	10.651	10.509	—	✓
" I	0.993	10.271	9.995	—	✓
" J	0.970	10.727	10.490	—	✓
" K	0.984	10.693	10.535	—	✓
" L	0.964	10.351	10.181	—	✓
		11-16-12	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: VR35

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 11-16-12

Final Volume 50

Final Volume (Hg): 50

Sample ID VR35 PBPK, MBSPK

	Prepcode:	SWA		
	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	SHM	CVA	1.0	0.05	2986-7
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.

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Digestion Log

Analyst: DM Date: 11-16-12 Time: 1105

Matrix: Soil Block ID: #2 Block Temp: 95°C Thermometer: MP30

ARI Sample ID	Btl #	pH<2	Prep Code: SNK Initial Wt (g) ~~Vol (mL)~~	Prep Code: SNK Final Vol (mL)	Prep Code: SNN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SNN Final Vol (mL)	Comments
VR35 A	1	—	1.047	50.0	1.028	50.0	
" AOUP	1	—	1.051		1.027		
" ASOK	1	—	1.046		1.024		
" B	1	—	1.073		1.029		
" C	1	—	1.074		1.027		
" D	1	—	1.042		1.069		
" E	1	—	1.024		1.029		
" F	1	—	1.023		1.038		
" G	1	—	1.017		1.016		
" H	1	—	1.091		1.042		
" I	1	—	1.033		1.096		
" J	1	—	1.053		1.050		
" K	1	—	1.063		1.054		
" L	1	—	1.027		1.017		
" MB1	—	—	—		—		
" MB1SK	—	—	—	50.0	—	50.0	
				11-16-12 DM			

Chemical/Reagent ID:

HNO_3: ~~MP2390~~ I7833 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

Analytical Resources, Incorporated
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Mercury Digestion Log

Prep Code: SMM Matrix: Soil
Analyst: DM Date: 11-16-12
Bath Temp: 95°c Start Time: 1120 End Time: 1150

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR35 A	1	—	0.749	50.0	11/18 1	Y	
" ADUP	1	—	0.745		1		
" ASPK	1	—	0.749		1		
" B	1	—	0.746		1		
" C	1	—	0.740		1		
" D	1	—	0.728		1		
" E	1	—	0.750		1		
" F	1	—	0.732		1		
" G	1	—	0.729		1		
" H	1	—	0.709		1		
" I	1	—	0.732		1		
" J	1	—	0.750		1		
" K	1	—	0.748		1		
" L	1	—	0.731		1		
" MB1	—	—	—		1		
" MBSPK	—	—	—	50.0	1	Y	
			11-16-12 DM				

Chemical/Reagent ID:

HNO_3: I7033 H_2SO_4: I1677 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2374 Digest Tube Lot: 1205258

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Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VR35
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 Low %R in ASPK
Post spike OK

Samples Affected:

Corrective Action Taken:

4/30/12

Analyst Initials: M **Supervisor:**

Date: 1-29-12 **Date:**

5049F

Revision 007
6/11/10

VR35 : 00100

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Metals Laboratory
Analyst Notes

ARI Job No.: VR35 Client ID: Hart Crowser

Parameter: ICP Client Project: Upper Columbia

List problems, concerns, corrective actions and any other pertinent information
CCB8 Ca > RL (0.0505 mg/L)
VR35 MB1 Ca > RL (0.06674 mg/L)
- All samples >10x contamination level.
Cu carryover from high samples. 12/6/12
Mn high in Matrix Spike post spike done and in control 12/6/12

Analyst Initials:	BA	Date:	11-20-12

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VR35

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-30-12 **Analyst:** AA **Page:** 1 of 7

All corrections made by analyst unless otherwise noted. AA 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			
		ICSAX			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			
		VT27 MB1	REN	2	
		MB2	↓	↓	
		MB2 spk	↓	↓	✓

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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 MB1spk	REN	2	
		ADup			
		A			
		Aspk			
		DDup			
		D			
Label		Dspk			
		CCV3			
		CCB3			
		VR67R MB	REN	2	
		MBspk			
		ADup			
		A			
		Aspk			
		B			
		VT77 B			
		C			
		E			
		F			
		CCV4			
		CCB4			
		VU12 MB1	REN	2	Cu 12 (CAF)
		MB2			
		MB2spk			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-30-12 **Analyst:** MA **Page:** 5 of 7

All corrections made by analyst unless otherwise noted. MA 12/2/12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VU12 MBlspk	REN	2	66Zn 131%
		A			
		B			
		C			
		D			
		E			
		F			
		CCV5			
		CCB5			62Ni ↑
		VS22 A-L	SUN	500	Zn
		A		100	
		ADup			
		~~Aspk~~			
zzz		~~APost~~			
		G			
		J			Pb Zn
		VR35 F			Pb Zn
		G			
		I			
		CCV6			
		CCB6			
		VS82 MBl	SUN	20	
		MBlspk		↓	✓
		C-L		100	✓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-30-12 **Analyst:** AT **Page:** 4 **of** 7

All corrections made by analyst unless otherwise noted. ~~12~~ 12-3-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS82 C	SWN	20	CAF
		CDup			Cr high RPD
		CSpk			Cr low %R
		CPost			0.06 mg/L ≈ 1% Cr
		VR35J		100	~~PR~~ Pb Zn
		K			
		L			Pb
		CCV7			
		CCB7			As 2
		VS82 A	SWN	20	
		B			
		D			
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		CCV8			
		CCB8			As2
		VS08R MB	REN	2	
		MBSpk			
		A			

12-3-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 11-30-12

Nexion M2	Analyst #12312	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	✓	✓	VS02
Matrix Duplicates	✓	✓	VS02
Method Blanks	✓	✓	VL12 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 VM12 VS02 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:\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	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: ~~B3~~ 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	U	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	U	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	U	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 ✓ & LV30
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:\NexIONData\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\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

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 30, 2012 16:31:03
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	1790044	2
	Be	9	0.002	ug/L	0.001	50	11	18	22
	C	13		ug/L			133450	153826	1
	Cl	37		ug/L			4493597	4664736	0
>	Sc	45		ug/L			1326563	1196459	1
	Al	27	0.884	ug/L	0.025	2	3293	34126	1
	V	51	0.035	ug/L	0.018	51	8426	8330	4
	V-1	51	0.002	ug/L	0.000	7	62	96	2
	Cr	52	0.147	ug/L	0.051	35	24946	24967	3
	Cr	53	0.031	ug/L	0.013	41	144	188	12
	Fe	54	9.280	ug/L	0.937	10	76518	80350	2
	Fe	57	2.246	ug/L	0.818	36	10109	10143	2
	Mn	55	0.007	ug/L	0.001	19	648	751	3
	Co	59	0.001	ug/L	0.000	27	86	95	4
>	Ge	72		ug/L			633989	573757	0
	Ni	60	-0.023	ug/L	0.001	2	122	33	6
	Ni	62	0.175	ug/L	0.030	17	91	169	9
	Cu	63	0.064	ug/L	0.003	4	166	634	3
	Cu	65	0.059	ug/L	0.002	3	58	249	2
	Zn	66	0.271	ug/L	0.014	5	329	853	3
	Zn	67	0.266	ug/L	0.038	14	43	131	10
	Zn	68	0.288	ug/L	0.019	6	290	688	4
	As	75	0.035	ug/L	0.007	18	308	347	3
	As-1	75	0.273	ug/L	0.029	10	10077	9647	0
	Se	82	0.026	ug/L	0.044	168	8	13	72
	Se	78	0.947	ug/L	0.092	9	10190	9744	0
	Mo	98	0.002	ug/L	0.001	67	8	15	33
	Y	89		ug/L			462466	399182	0
	Kr	83		ug/L			550	560	4
>	In	115		ug/L			919574	858489	1
	Ag	107	0.001	ug/L	0.001	212	18	20	39
	Cd	111	0.006	ug/L	0.001	25	62	80	8
	Cd	114	-0.000	ug/L	0.001	366	31	26	35
	Sb	121	0.014	ug/L	0.004	30	46	201	23
	Sb	123	0.013	ug/L	0.004	32	36	143	22
	Ba	135	0.070	ug/L	0.005	7	28	275	5
	Ba	137	0.070	ug/L	0.005	7	43	473	5
>	Tb	159		ug/L			1095800	982271	2
	Tl	205	0.007	ug/L	0.003	49	30	236	42
	Pb	208	-0.009	ug/L	0.001	6	691	286	7
	Bi	209		ug/L			2712548	2467263	1
	Th	232	0.073	ug/L	0.005	6	69	2768	5
	U	238	0.000	ug/L	0.000	60	3	15	48

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 MB1SPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 16:35:17
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: 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	1779020	1
[	Be	9	26.848	ug/L	0.826	3	11	115273	2
	C	13		ug/L			133450	147807	0
	Cl	37		ug/L			4493597	4710795	3
[>	Sc	45		ug/L			1326563	1193939	3
[	Al	27	1.498	ug/L	0.073	4	3293	55608	0
[	V	51	25.399	ug/L	0.708	2	8426	540424	2
[	V-1	51	25.354	ug/L	0.816	3	62	530335	1
[	Cr	52	26.705	ug/L	0.723	2	24946	471050	3
[	Cr	53	26.560	ug/L	1.086	4	144	50002	1
[	Fe	54	6.872	ug/L	2.563	37	76518	77165	1
[	Fe	57	1.137	ug/L	1.814	159	10109	9600	5
[	Mn	55	25.232	ug/L	1.102	4	648	612036	0
[	Co	59	26.698	ug/L	1.180	4	86	420188	1
[>	Ge	72		ug/L			633989	562422	1
[	Ni	60	27.439	ug/L	0.437	1	122	90406	0
[	Ni	62	27.051	ug/L	0.351	1	91	13131	1
[	Cu	63	27.387	ug/L	0.445	1	166	201802	0
[	Cu	65	28.151	ug/L	0.293	1	58	91711	1
[	Zn	66	87.746	ug/L	1.281	1	329	176349	0
[	Zn	67	81.894	ug/L	0.238	0	43	28004	2
[	Zn	68	86.077	ug/L	1.532	1	290	124826	0
[	As	75	30.050	ug/L	0.523	1	308	57401	1
[	As-1	75	30.370	ug/L	0.399	1	10077	66447	0
[	Se	82	84.972	ug/L	1.822	2	8	18085	1
[	Se	78	85.780	ug/L	1.515	1	10190	55395	0
[	Mo	98	0.008	ug/L	0.001	6	8	42	6
	Y	89		ug/L			462466	396460	1
	Kr	83		ug/L			550	568	2
[>	In	115		ug/L			919574	843108	0
[	Ag	107	27.406	ug/L	0.411	1	18	209957	0
[	Cd	111	26.487	ug/L	0.387	1	62	97812	1
[	Cd	114	26.351	ug/L	0.524	1	31	247503	2
[	Sb	121	0.005	ug/L	0.002	35	46	97	20
[	Sb	123	0.004	ug/L	0.001	31	36	70	16
[	Ba	135	26.024	ug/L	0.256	0	28	91495	0
[	Ba	137	25.519	ug/L	0.009	0	43	156060	0
[>	Tb	159		ug/L			1095800	964645	1
[	Tl	205	25.638	ug/L	0.138	0	30	750112	0
[	Pb	208	26.882	ug/L	0.156	0	691	991582	0
[	Bi	209		ug/L			2712548	2441979	0
[	Th	232	24.811	ug/L	0.555	2	69	898077	1
[	U	238	24.650	ug/L	0.567	2	3	948335	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 C-L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 30, 2012 16:39:31
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	1845480	2
[	Be	9	0.015	ug/L	0.003	17	11	77	16
	C	13		ug/L			133450	150991	3
	Cl	37		ug/L			4493597	5070289	2
[>	Sc	45		ug/L			1326563	1213976	0
[	Al	27	964.106	ug/L	11.430	1	3293	34505881	1
[	V	51	2.330	ug/L	0.033	1	8426	57443	0
[	V-1	51	2.378	ug/L	0.022	0	62	50663	0
[	Cr	52	5.772	ug/L	0.095	1	24946	121455	1
[	Cr	53	5.977	ug/L	0.151	2	144	11556	2
[	Fe	54	956.291	ug/L	15.549	1	76518	1254201	1
[	Fe	57	971.010	ug/L	7.638	0	10109	460479	0
[	Mn	55	31.297	ug/L	0.087	0	648	772608	0
[	Co	59	0.472	ug/L	0.007	1	86	7638	0
[>	Ge	72		ug/L			633989	567424	2
[	Ni	60	2.884	ug/L	0.032	1	122	9683	1
[	Ni	62	2.651	ug/L	0.040	1	91	1372	1
[	Cu	63	1.069	ug/L	0.019	1	166	8095	4
[	Cu	65	1.076	ug/L	0.008	0	58	3587	3
[	Zn	66	4.569	ug/L	0.204	4	329	9538	2
[	Zn	67	4.370	ug/L	0.159	3	43	1543	2
[	Zn	68	4.425	ug/L	0.063	1	290	6720	2
[	As	75	0.204	ug/L	0.013	6	308	668	5
[	As-1	75	0.414	ug/L	0.148	35	10077	9805	0
[	Se	82	0.047	ug/L	0.059	123	8	17	70
[	Se	78	0.925	ug/L	0.504	54	10190	9620	0
[	Mo	98	0.015	ug/L	0.001	3	8	74	4
	Y	89		ug/L			462466	418428	0
	Kr	83		ug/L			550	594	6
[>	In	115		ug/L			919574	860865	0
[	Ag	107	0.034	ug/L	0.002	6	18	283	6
[	Cd	111	1.034	ug/L	0.011	1	62	3956	0
[	Cd	114	1.030	ug/L	0.011	1	31	9906	0
[	Sb	121	0.004	ug/L	0.001	22	46	83	10
[	Sb	123	0.004	ug/L	0.001	23	36	66	11
[	Ba	135	2.658	ug/L	0.048	1	28	9564	1
[	Ba	137	2.664	ug/L	0.059	2	43	16668	1
[>	Tb	159		ug/L			1095800	1023304	0
[	Tl	205	0.006	ug/L	0.000	5	30	216	4
[	Pb	208	0.493	ug/L	0.009	1	691	19924	1
[	Bi	209		ug/L			2712548	2439498	0
[	Th	232	0.316	ug/L	0.018	5	69	12207	6
[	U	238	0.030	ug/L	0.001	1	3	1245	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 30, 2012 16:43:45
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	1845901	0
[	Be	9	0.062	ug/L	0.002	3	11	287	4
	C	13		ug/L			133450	150670	1
	Cl	37		ug/L			4493597	5045077	2
[>	Sc	45		ug/L			1326563	1229101	2
|	Al	27	4904.295	ug/L	95.244	1	3293	177650024	0
|	V	51	12.043	ug/L	0.439	3	8426	268165	5
|	V-1	51	11.990	ug/L	0.131	1	62	258430	3
|	Cr	52	28.886	ug/L	0.775	2	24946	523028	4
|	Cr	53	28.872	ug/L	0.505	1	144	55988	1
|	Fe	54	4878.144	ug/L	65.488	1	76518	6185890	1
|	Fe	57	5150.872	ug/L	70.603	1	10109	2432320	0
|	Mn	55	161.517	ug/L	3.317	2	648	4033213	0
[	Co	59	2.320	ug/L	0.034	1	86	37697	1
[>	Ge	72		ug/L			633989	526051	1
|	Ni	60	14.444	ug/L	0.364	2	122	44565	2
|	Ni	62	13.927	ug/L	0.494	3	91	6359	3
|	Cu	63	5.295	ug/L	0.085	1	166	36612	2
|	Cu	65	5.385	ug/L	0.132	2	58	16445	1
|	Zn	66	21.168	ug/L	0.531	2	329	39996	1
|	Zn	67	20.999	ug/L	0.380	1	43	6742	2
|	Zn	68	20.480	ug/L	0.126	0	290	27970	2
|	As	75	0.917	ug/L	0.026	2	308	1886	2
|	As-1	75	1.176	ug/L	0.092	7	10077	10442	0
|	Se	82	0.286	ug/L	0.060	20	8	63	20
|	Se	78	1.473	ug/L	0.320	21	10190	9198	0
[	Mo	98	0.072	ug/L	0.002	2	8	300	2
	Y	89		ug/L			462466	430974	0
	Kr	83		ug/L			550	645	6
[>	In	115		ug/L			919574	794498	0
|	Ag	107	0.155	ug/L	0.004	2	18	1131	2
|	Cd	111	5.173	ug/L	0.083	1	62	18046	0
|	Cd	114	5.160	ug/L	0.035	0	31	45693	0
|	Sb	121	0.013	ug/L	0.003	21	46	177	15
|	Sb	123	0.014	ug/L	0.001	3	36	143	2
|	Ba	135	14.897	ug/L	0.084	0	28	49367	0
[	Ba	137	14.524	ug/L	0.142	0	43	83714	0
[>	Tb	159		ug/L			1095800	996898	0
|	Tl	205	0.017	ug/L	0.001	7	30	540	7
|	Pb	208	2.388	ug/L	0.018	0	691	91618	0
|	Bi	209		ug/L			2712548	1771822	0
|	Th	232	0.351	ug/L	0.004	1	69	13206	0
[	U	238	0.134	ug/L	0.002	1	3	5350	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 CDUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 30, 2012 16:47:59
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	1799779	0
[	Be	9	0.063	ug/L	0.002	2	11	283	3
	C	13		ug/L			133450	154336	2
	Cl	37		ug/L			4493597	4925366	1
[>	Sc	45		ug/L			1326563	1201464	0
|	Al	27	3616.082	ug/L	23.144	0	3293	128080098	1
|	V	51	12.015	ug/L	0.237	1	8426	261402	1
|	V-1	51	12.081	ug/L	0.169	1	62	254496	1
|	Cr	52	19.736	ug/L	0.506	2	24946	356302	1
|	Cr	53	20.051	ug/L	0.110	0	144	38053	0
|	Fe	54	5165.320	ug/L	62.723	1	76518	6399599	0
|	Fe	57	5597.146	ug/L	106.737	1	10109	2583243	1
|	Mn	55	158.601	ug/L	0.790	0	648	3872476	0
[	Co	59	2.009	ug/L	0.019	0	86	31918	0
[>	Ge	72		ug/L			633989	515715	1
|	Ni	60	12.393	ug/L	0.239	1	122	37498	1
|	Ni	62	11.586	ug/L	0.068	0	91	5200	1
|	Cu	63	6.032	ug/L	0.192	3	166	40863	2
|	Cu	65	6.172	ug/L	0.059	0	58	18476	1
|	Zn	66	21.855	ug/L	0.680	3	329	40478	2
|	Zn	67	20.847	ug/L	0.236	1	43	6562	1
|	Zn	68	20.999	ug/L	0.596	2	290	28101	1
|	As	75	0.966	ug/L	0.007	0	308	1935	0
|	As-1	75	1.315	ug/L	0.080	6	10077	10480	0
|	Se	82	0.316	ug/L	0.027	8	8	68	8
|	Se	78	1.816	ug/L	0.275	15	10190	9188	0
[	Mo	98	0.080	ug/L	0.008	9	8	323	9
	Y	89		ug/L			462466	421518	0
	Kr	83		ug/L			550	631	2
[>	In	115		ug/L			919574	790000	0
|	Ag	107	0.141	ug/L	0.002	1	18	1027	2
|	Cd	111	5.974	ug/L	0.121	2	62	20710	1
|	Cd	114	5.991	ug/L	0.064	1	31	52745	1
|	Sb	121	0.014	ug/L	0.003	18	46	188	13
|	Sb	123	0.013	ug/L	0.002	15	36	136	11
|	Ba	135	11.052	ug/L	0.099	0	28	36426	1
[	Ba	137	10.851	ug/L	0.017	0	43	62201	0
[>	Tb	159		ug/L			1095800	974542	0
|	Tl	205	0.012	ug/L	0.000	1	30	373	0
|	Pb	208	2.415	ug/L	0.021	0	691	90547	0
|	Bi	209		ug/L			2712548	1720834	0
|	Th	232	0.227	ug/L	0.005	2	69	8344	1
[	U	238	0.150	ug/L	0.003	2	3	5847	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 CSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 30, 2012 16:52:13
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	1801797	2
[	Be	9	25.189	ug/L	0.221	0	11	109571	2
	C	13		ug/L			133450	147263	1
	Cl	37		ug/L			4493597	4826128	4
[>	Sc	45		ug/L			1326563	1167124	4
[	Al	27	4466.757	ug/L	88.553	1	3293	153591933	2
[	V	51	39.766	ug/L	1.479	3	8426	822663	3
[	V-1	51	40.076	ug/L	1.311	3	62	819286	2
[	Cr	52	38.150	ug/L	1.273	3	24946	648076	2
[	Cr	53	39.239	ug/L	1.321	3	144	72152	1
[	Fe	54	5557.891	ug/L	203.786	3	76518	6677215	1
[	Fe	57	5948.557	ug/L	265.821	4	10109	2663060	1
[	Mn	55	193.069	ug/L	8.411	4	648	4573747	1
[	Co	59	27.816	ug/L	1.104	3	86	427970	2
[>	Ge	72		ug/L			633989	512031	3
[	Ni	60	40.326	ug/L	0.717	1	122	120884	2
[	Ni	62	39.290	ug/L	1.101	2	91	17320	1
[	Cu	63	32.236	ug/L	1.203	3	166	216069	0
[	Cu	65	32.544	ug/L	0.762	2	58	96467	1
[	Zn	66	103.038	ug/L	3.791	3	329	188342	0
[	Zn	67	92.998	ug/L	2.746	2	43	28933	2
[	Zn	68	97.770	ug/L	1.856	1	290	129018	2
[	As	75	31.510	ug/L	0.353	1	308	54779	2
[	As-1	75	31.392	ug/L	0.806	2	10077	62229	1
[	Se	82	82.843	ug/L	1.058	1	8	16051	2
[	Se	78	82.309	ug/L	2.604	3	10190	48702	1
[	Mo	98	0.102	ug/L	0.006	6	8	411	7
	Y	89		ug/L			462466	425004	2
	Kr	83		ug/L			550	645	2
[>	In	115		ug/L			919574	781346	2
[	Ag	107	23.326	ug/L	0.220	0	18	165603	1
[	Cd	111	29.252	ug/L	0.910	3	62	100071	1
[	Cd	114	29.249	ug/L	0.375	1	31	254547	1
[	Sb	121	0.013	ug/L	0.001	9	46	175	6
[	Sb	123	0.014	ug/L	0.001	5	36	136	3
[	Ba	135	40.932	ug/L	1.382	3	28	133291	1
[	Ba	137	41.085	ug/L	0.623	1	43	232774	0
[>	Tb	159		ug/L			1095800	967467	1
[	Tl	205	23.586	ug/L	0.352	1	30	692015	0
[	Pb	208	26.138	ug/L	0.382	1	691	966826	0
[	Bi	209		ug/L			2712548	1765014	0
[	Th	232	23.274	ug/L	0.349	1	69	844916	0
[	U	238	24.414	ug/L	0.509	2	3	941946	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS82 CPOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 30, 2012 16:56:27
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	1852361	1
[	Be	9	25.786	ug/L	0.555	2	11	115297	1
	C	13		ug/L			133450	149709	4
	Cl	37		ug/L			4493597	4951956	3
[>	Sc	45		ug/L			1326563	1203937	1
|	Al	27	4840.888	ug/L	7.851	0	3293	171807921	1
|	V	51	37.438	ug/L	0.759	2	8426	799898	0
|	V-1	51	37.342	ug/L	0.832	2	62	787996	1
|	Cr	52	55.085	ug/L	1.848	3	24946	955790	2
|	Cr	53	54.925	ug/L	1.809	3	144	104198	2
|	Fe	54	4776.802	ug/L	103.494	2	76518	5934531	0
|	Fe	57	5099.933	ug/L	65.068	1	10109	2359191	0
|	Mn	55	183.239	ug/L	3.771	2	648	4482887	2
[	Co	59	27.503	ug/L	0.513	1	86	436890	1
[>	Ge	72		ug/L			633989	516306	1
|	Ni	60	42.206	ug/L	0.632	1	122	127615	1
|	Ni	62	39.427	ug/L	0.720	1	91	17536	1
|	Cu	63	31.489	ug/L	0.173	0	166	213010	0
|	Cu	65	32.141	ug/L	0.335	1	58	96118	0
|	Zn	66	102.037	ug/L	1.027	1	329	188240	1
|	Zn	67	95.438	ug/L	1.753	1	43	29950	0
|	Zn	68	99.337	ug/L	2.708	2	290	132214	2
|	As	75	33.027	ug/L	0.370	1	308	57893	0
|	As-1	75	33.081	ug/L	0.505	1	10077	65713	0
|	Se	82	86.982	ug/L	0.584	0	8	16998	0
|	Se	78	86.983	ug/L	1.197	1	10190	51456	0
[	Mo	98	0.081	ug/L	0.003	4	8	328	3
	Y	89		ug/L			462466	436663	0
	Kr	83		ug/L			550	623	4
[>	In	115		ug/L			919574	786221	1
|	Ag	107	24.602	ug/L	0.205	0	18	175762	0
|	Cd	111	31.554	ug/L	0.493	1	62	108646	0
|	Cd	114	31.204	ug/L	0.370	1	31	273278	0
|	Sb	121	0.018	ug/L	0.001	5	46	224	4
|	Sb	123	0.018	ug/L	0.002	13	36	168	10
|	Ba	135	41.785	ug/L	0.096	0	28	136990	1
[	Ba	137	42.007	ug/L	0.350	0	43	239524	0
[>	Tb	159		ug/L			1095800	971923	0
|	Tl	205	23.997	ug/L	0.130	0	30	707424	0
|	Pb	208	26.538	ug/L	0.175	0	691	986272	0
|	Bi	209		ug/L			2712548	1776977	1
|	Th	232	24.222	ug/L	0.194	0	69	883513	0
[	U	238	25.119	ug/L	0.267	1	3	973832	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 17:00:41
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	1829578	3
[	**Be**	**9**	**0.092**	ug/L	0.002	1	11	415	3
	C	**13**		ug/L			133450	151617	2
	Cl	**37**		ug/L			4493597	4897484	6
[>	**Sc**	**45**		ug/L			1326563	1218140	0
[	**Al**	**27**	**2972.397**	ug/L	51.018	1	3293	106731936	1
[	**V**	**51**	**4.481**	ug/L	0.058	1	8426	103696	0
[	**V-1**	**51**	**4.496**	ug/L	0.059	1	62	96065	1
[	**Cr**	**52**	**4.003**	ug/L	0.131	3	24946	91534	2
[	**Cr**	**53**	**4.052**	ug/L	0.132	3	144	7903	3
[	**Fe**	**54**	**3095.936**	ug/L	5.110	0	76518	3917314	0
[	**Fe**	**57**	**2893.509**	ug/L	68.838	2	10109	1358380	1
[	**Mn**	**55**	**225.782**	ug/L	5.972	2	648	5588741	2
[	**Co**	**59**	**1.370**	ug/L	0.029	2	86	22096	2
[>	**Ge**	**72**		ug/L			633989	559603	1
[	**Ni**	**60**	**3.488**	ug/L	0.115	3	122	11528	2
[	**Ni**	**62**	**3.830**	ug/L	0.175	4	91	1918	3
[	**Cu**	**63**	**4.285**	ug/L	0.147	3	166	31537	2
[	**Cu**	**65**	**4.358**	ug/L	0.168	3	58	14168	3
[	**Zn**	**66**	**74.138**	ug/L	0.865	1	329	148311	0
[	**Zn**	**67**	**70.020**	ug/L	2.813	4	43	23826	3
[	**Zn**	**68**	**74.616**	ug/L	1.097	1	290	107722	2
[	**As**	**75**	**3.540**	ug/L	0.024	0	308	6969	1
[	**As-1**	**75**	**3.846**	ug/L	0.092	2	10077	16140	0
[	**Se**	**82**	**0.068**	ug/L	0.045	66	8	21	43
[	**Se**	**78**	**1.247**	ug/L	0.290	23	10190	9664	0
[	**Mo**	**98**	**0.114**	ug/L	0.004	3	8	500	3
	Y	**89**		ug/L			462466	427767	0
	Kr	**83**		ug/L			550	593	4
[>	**In**	**115**		ug/L			919574	841368	1
[	**Ag**	**107**	**0.058**	ug/L	0.001	1	18	462	1
[	**Cd**	**111**	**1.302**	ug/L	0.007	0	62	4851	0
[	**Cd**	**114**	**1.324**	ug/L	0.002	0	31	12438	1
[	**Sb**	**121**	**0.190**	ug/L	0.005	2	46	2171	2
[	**Sb**	**123**	**0.188**	ug/L	0.002	1	36	1612	1
[	**Ba**	**135**	**60.206**	ug/L	0.737	1	28	211195	0
[	**Ba**	**137**	**59.475**	ug/L	0.956	1	43	362902	1
[>	**Tb**	**159**		ug/L			1095800	991938	2
[	**Tl**	**205**	**0.066**	ug/L	0.005	7	30	2017	4
[	**Pb**	**208**	**63.271**	ug/L	1.910	3	691	2398006	0
[	**Bi**	**209**		ug/L			2712548	2434402	1
[	**Th**	**232**	**0.797**	ug/L	0.023	2	69	29728	2
[	**U**	**238**	**0.123**	ug/L	0.006	4	3	4862	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 17:04:55
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	1872102	1
[	Be	9	0.069	ug/L	0.003	4	11	323	4
	C	13		ug/L			133450	156274	2
	Cl	37		ug/L			4493597	4755217	0
[>	Sc	45		ug/L			1326563	1219731	1
[	Al	27	2083.743	ug/L	18.144	0	3293	74932946	2
[	V	51	5.672	ug/L	0.087	1	8426	129375	1
[	V-1	51	5.673	ug/L	0.081	1	62	121348	0
[	Cr	52	4.504	ug/L	0.116	2	24946	100267	3
[	Cr	53	4.496	ug/L	0.147	3	144	8763	2
[	Fe	54	3482.185	ug/L	49.638	1	76518	4402434	0
[	Fe	57	3128.050	ug/L	126.832	4	10109	1469293	2
[	Mn	55	89.426	ug/L	1.303	1	648	2216796	1
[	Co	59	1.410	ug/L	0.017	1	86	22775	1
[>	Ge	72		ug/L			633989	554488	0
[	Ni	60	3.276	ug/L	0.148	4	122	10734	3
[	Ni	62	3.797	ug/L	0.066	1	91	1886	1
[	Cu	63	4.308	ug/L	0.096	2	166	31424	2
[	Cu	65	4.444	ug/L	0.083	1	58	14316	1
[	Zn	66	91.325	ug/L	1.100	1	329	180965	0
[	Zn	67	82.955	ug/L	0.443	0	43	27965	0
[	Zn	68	88.561	ug/L	1.542	1	290	126627	1
[	As	75	1.944	ug/L	0.014	0	308	3915	0
[	As-1	75	2.264	ug/L	0.052	2	10077	13039	0
[	Se	82	0.011	ug/L	0.028	261	8	9	62
[	Se	78	1.310	ug/L	0.153	11	10190	9610	0
[	Mo	98	0.064	ug/L	0.006	8	8	282	8
	Y	89		ug/L			462466	439306	0
	Kr	83		ug/L			550	623	2
[>	In	115		ug/L			919574	861345	1
[	Ag	107	0.065	ug/L	0.003	4	18	524	3
[	Cd	111	1.375	ug/L	0.017	1	62	5243	1
[	Cd	114	1.356	ug/L	0.024	1	31	13034	1
[	Sb	121	0.104	ug/L	0.006	5	46	1233	4
[	Sb	123	0.101	ug/L	0.001	0	36	901	1
[	Ba	135	23.075	ug/L	0.174	0	28	82883	0
[	Ba	137	22.456	ug/L	0.074	0	43	140304	0
[>	Tb	159		ug/L			1095800	998437	1
[	Tl	205	0.082	ug/L	0.004	4	30	2512	4
[	Pb	208	65.048	ug/L	0.960	1	691	2482360	0
[	Bi	209		ug/L			2712548	2466304	0
[	Th	232	1.017	ug/L	0.010	0	69	38160	0
[	U	238	0.092	ug/L	0.001	0	3	3650	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 17:09:09
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	1878683	1
	Be	9	0.082	ug/L	0.003	3	11	385	2
	C	13		ug/L			133450	158138	2
	Cl	37		ug/L			4493597	4692647	2
>	Sc	45		ug/L			1326563	1246258	1
	Al	27	2387.657	ug/L	53.051	2	3293	87708478	1
	V	51	3.882	ug/L	0.116	2	8426	92968	3
	V-1	51	3.874	ug/L	0.099	2	62	84701	2
	Cr	52	2.392	ug/L	0.085	3	24946	65385	1
	Cr	53	2.350	ug/L	0.050	2	144	4745	0
	Fe	54	2484.085	ug/L	29.865	1	76518	3229625	0
	Fe	57	2298.537	ug/L	19.024	0	10109	1105992	0
	Mn	55	71.280	ug/L	0.559	0	648	1805544	0
	Co	59	0.793	ug/L	0.015	1	86	13121	2
>	Ge	72		ug/L			633989	572458	1
	Ni	60	2.032	ug/L	0.033	1	122	6917	2
	Ni	62	2.317	ug/L	0.023	1	91	1220	0
	Cu	63	6.573	ug/L	0.083	1	166	49421	2
	Cu	65	6.562	ug/L	0.107	1	58	21800	1
	Zn	66	66.022	ug/L	2.113	3	329	135126	2
	Zn	67	60.491	ug/L	0.931	1	43	21062	1
	Zn	68	63.400	ug/L	0.852	1	290	93665	1
	As	75	5.785	ug/L	0.099	1	308	11472	0
	As-1	75	5.978	ug/L	0.188	3	10077	20619	0
	Se	82	0.012	ug/L	0.031	259	8	10	67
	Se	78	0.763	ug/L	0.341	44	10190	9619	0
	Mo	98	0.092	ug/L	0.002	2	8	416	1
	Y	89		ug/L			462466	439304	1
	Kr	83		ug/L			550	605	4
>	In	115		ug/L			919574	883460	0
	Ag	107	0.115	ug/L	0.007	5	18	939	5
	Cd	111	1.497	ug/L	0.051	3	62	5847	3
	Cd	114	1.486	ug/L	0.002	0	31	14654	0
	Sb	121	0.391	ug/L	0.009	2	46	4650	2
	Sb	123	0.389	ug/L	0.006	1	36	3463	1
	Ba	135	28.094	ug/L	0.210	0	28	103500	0
	Ba	137	27.870	ug/L	0.178	0	43	178599	1
>	Tb	159		ug/L			1095800	1012060	0
	Tl	205	0.099	ug/L	0.001	1	30	3055	1
	Pb	208	127.220	ug/L	2.087	1	691	4920600	0
	Bi	209		ug/L			2712548	2508729	0
	Th	232	0.613	ug/L	0.009	1	69	23327	0
	U	238	0.118	ug/L	0.001	1	3	4770	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 17:14:29
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	1826638	0
[	Be	9	52.461	ug/L	0.608	1	11	231309	0
	C	13		ug/L			133450	143886	1
	Cl	37		ug/L			4493597	4864304	2
[>	Sc	45		ug/L			1326563	1228629	2
[	Al	27	5093.053	ug/L	192.293	3	3293	184370774	1
[	V	51	47.843	ug/L	1.284	2	8426	1040801	0
[	V-1	51	48.016	ug/L	1.317	2	62	1033806	0
[	Cr	52	50.134	ug/L	1.476	2	24946	889732	1
[	Cr	53	50.774	ug/L	1.456	2	144	98302	1
[	Fe	54	5044.033	ug/L	105.766	2	76518	6391904	2
[	Fe	57	5186.562	ug/L	242.652	4	10109	2447529	3
[	Mn	55	47.840	ug/L	1.654	3	648	1194331	1
[	Co	59	48.388	ug/L	1.326	2	86	784181	0
[>	Ge	72		ug/L			633989	564763	0
[	Ni	60	50.377	ug/L	0.758	1	122	166596	0
[	Ni	62	48.762	ug/L	0.515	1	91	23706	1
[	Cu	63	51.788	ug/L	0.982	1	166	383091	1
[	Cu	65	50.873	ug/L	0.326	0	58	166403	1
[	Zn	66	52.692	ug/L	0.712	1	329	106467	0
[	Zn	67	51.951	ug/L	0.713	1	43	17852	1
[	Zn	68	51.712	ug/L	0.558	1	290	75419	0
[	As	75	51.755	ug/L	0.573	1	308	99082	0
[	As-1	75	51.940	ug/L	0.712	1	10077	107745	0
[	Se	82	52.642	ug/L	0.315	0	8	11256	1
[	Se	78	52.726	ug/L	0.480	0	10190	37694	0
[	Mo	98	51.001	ug/L	0.843	1	8	222692	1
	Y	89		ug/L			462466	412280	1
	Kr	83		ug/L			550	598	6
[>	In	115		ug/L			919574	854798	1
[	Ag	107	50.468	ug/L	1.167	2	18	391932	1
[	Cd	111	51.093	ug/L	0.708	1	62	191241	1
[	Cd	114	51.404	ug/L	0.458	0	31	489443	0
[	Sb	121	50.602	ug/L	0.734	1	46	577042	1
[	Sb	123	51.027	ug/L	0.750	1	36	435297	0
[	Ba	135	49.799	ug/L	1.172	2	28	177469	1
[	Ba	137	49.357	ug/L	0.723	1	43	305955	0
[>	Tb	159		ug/L			1095800	1025159	1
[	Tl	205	45.606	ug/L	0.257	0	30	1418046	0
[	Pb	208	47.831	ug/L	0.278	0	691	1874440	0
[	Bi	209		ug/L			2712548	2442032	1
[	Th	232	45.645	ug/L	0.470	1	69	1755953	0
[	U	238	45.646	ug/L	0.810	1	3	1866330	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 17:21:28
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	1768143	1
	Be	9	0.002	ug/L	0.001	67	11	19	31
	C	13		ug/L			133450	146520	0
	Cl	37		ug/L			4493597	4720673	4
>	Sc	45		ug/L			1326563	1180337	0
	Al	27	0.060	ug/L	0.063	104	3293	5023	44
	V	51	0.026	ug/L	0.010	40	8426	8030	2
	V-1	51	0.001	ug/L	0.001	56	62	76	16
	Cr	52	0.096	ug/L	0.033	34	24946	23793	1
	Cr	53	0.009	ug/L	0.006	61	144	144	7
	Fe	54	0.067	ug/L	0.560	835	76518	68162	0
	Fe	57	-2.226	ug/L	0.408	18	10109	7989	2
	Mn	55	-0.002	ug/L	0.001	40	648	526	4
	Co	59	0.001	ug/L	0.001	196	86	86	22
>	Ge	72		ug/L			633989	541127	2
	Ni	60	-0.018	ug/L	0.002	9	122	49	12
	Ni	62	0.058	ug/L	0.024	40	91	105	8
	Cu	63	-0.001	ug/L	0.003	241	166	133	17
	Cu	65	-0.003	ug/L	0.001	53	58	41	12
	Zn	66	-0.016	ug/L	0.004	23	329	251	1
	Zn	67	0.014	ug/L	0.016	112	43	41	11
	Zn	68	-0.003	ug/L	0.011	342	290	243	4
	As	75	0.042	ug/L	0.019	44	308	339	7
	As-1	75	0.514	ug/L	0.134	26	10077	9532	0
	Se	82	0.014	ug/L	0.107	783	8	9	225
	Se	78	1.788	ug/L	0.479	26	10190	9624	0
	Mo	98	0.009	ug/L	0.002	18	8	43	15
	Y	89		ug/L			462466	396900	1
	Kr	83		ug/L			550	554	6
>	In	115		ug/L			919574	824971	2
	Ag	107	0.001	ug/L	0.001	185	18	21	43
	Cd	111	0.009	ug/L	0.001	7	62	88	1
	Cd	114	0.001	ug/L	0.001	72	31	36	17
	Sb	121	0.053	ug/L	0.006	12	46	621	9
	Sb	123	0.056	ug/L	0.009	16	36	496	13
	Ba	135	-0.000	ug/L	0.001	346	28	24	15
	Ba	137	0.002	ug/L	0.001	57	43	50	14
>	Tb	159		ug/L			1095800	955698	0
	Tl	205	0.009	ug/L	0.003	32	30	291	29
	Pb	208	-0.006	ug/L	0.001	25	691	391	13
	Bi	209		ug/L			2712548	2436289	0
	Th	232	0.170	ug/L	0.013	7	69	6155	7
	U	238	0.003	ug/L	0.001	22	3	105	22

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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 also ^{52}Cr
		LR300			Co Ag ^{114}Cd Sb high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VTSA MB1	RBN	2	A.W. ~~DAF~~ 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:** [signature] **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			
		LR200			^{114}Cd ^{121}Sb high
		LR300			Co Ag ^{114}Cd Sb high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VTSM MB1	RBN	2	A.N. ~~DAF~~ 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:** 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		↓	
		↓ 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	
		MB1spk		↓	
		A-L		100	Pb 13.5% R RR Zn 1/50
		A		20	CAN
		ADup			Sb hi 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	SWW	20	
		C			
		VS21 B		100	Ag
		CCV7			
		CCB7			
		VS22 D	SWW	20	
		E			
		F			
		G			Re Zn
		H			
		I			
		J			Re Zn
		K			
		L			
		VS45 B	REN	2	
		CCV8			Th U
		CCB8			
		VS45MB1	REN	2	
		MB1spl			✓
		A-L		10	✓
		A		2	
		ADup			✓
		Aspl			✓
zzz		zzz APost			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** AA **Page:** 5 of 7

All corrections made by analyst unless otherwise noted. AA 11-29-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS45 C	REN	2	
		D	↓	↓	
		E	↓	↓	
		CCV9			THU ↓
		CCB9			
		VS61 MB1	REN	2	
		MB1spk	↓	↓ ✓	
		A-L		10 ✓	
		A		2	
		ADup		↓ ✓	
		Aspk		↓ ✓	
ZZZ		~~ZZZZZ APOST~~		↓	
		VS45 F			
		VS61 B			
		↓ C	↓	↓	
		CCV10			THU ↓
		CCB10			~~TH~~
		VS80 MB1	REN	2	
		MB1spk	↓	↓ ✓	
		A-L		10 ✓	
		A		2	
		ADup		↓ ✓	
		Aspk		↓ ✓	
ZZZ		~~ZZZZZ APOST~~	↓	↓	

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** M **Page:** 6 of 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS80 B	REN	2	
		↓ C	↓	↓	
		CCV4			
		CCB11			
		VS65 MB	REN	2	
		MB Spk		↓ ✓	
		A			
		D			
		E			
		G			
		H			
		↓ J	↓	↓	
		CCV12			TM ↓
		CCB12			
		VR35 MB1	SUN	20	
		MB1 Spk		↓ ✓	
		A-L		100 ✓	
		A		20	CANCEL
		A Dup		✓	
		A Spk			56 low %R
		A Post			0.06 mL spk #2 10 0.06 mL Spk #1 10 SA
		B			
		C			
		↓ D	↓	↓	

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** JA **Page:** 7 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCV13			THLT
		CCB13			
		VR35D	SUN	20	
		E			
		F			RR Zn 1/100 also Pb
		G			RR Pb Zn
		H			
		I			RR Pb Zn
		J			RR Pb Zn
		K			RR Pb Zn
		L			RR Pb
		CCV14			THT
		CCB14			
		Rinse / DI			

11-29-12

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

Optimization Summary

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

Start Time: 11/28/2012 8:33:10 AM
End Time: 11/28/2012 8:35:22 AM

Mass 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	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: ~~V821APOST 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

	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

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	J 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

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

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

PRZN

	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

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

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:09:37
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	1757792	0
[	Be	9	0.015	ug/L	0.003	17	12	81	14
	C	13		ug/L			138826	155847	1
	Cl	37		ug/L			4735446	4759179	3
[>	Sc	45		ug/L			1275890	1246619	1
|	V	51	0.001	ug/L	0.012	1104	9212	9024	2
|	V-1	51	0.010	ug/L	0.001	9	60	287	8
|	Cr	52	0.007	ug/L	0.047	710	27310	26801	2
|	Cr	53	0.037	ug/L	0.006	16	159	234	4
|	Mn	55	0.068	ug/L	0.002	3	592	2386	3
[	Co	59	0.004	ug/L	0.000	11	80	154	4
[>	Ge	72		ug/L			659198	627834	1
|	Ni	60	0.017	ug/L	0.003	14	16	80	12
|	Ni	62	-0.324	ug/L	0.007	2	275	92	4
|	Cu	63	0.908	ug/L	0.010	1	372	7831	0
|	Cu	65	0.935	ug/L	0.034	3	41	3486	2
|	Zn	66	0.863	ug/L	0.018	2	192	2197	0
|	Zn	67	0.743	ug/L	0.063	8	31	317	6
|	Zn	68	0.814	ug/L	0.043	5	189	1541	5
|	As	75	0.022	ug/L	0.011	51	267	299	8
|	As-1	75	0.152	ug/L	0.046	30	10608	10414	0
|	Se	82	0.051	ug/L	0.041	80	-2	8	107
|	Se	78	0.497	ug/L	0.169	34	10783	10567	0
[	Mo	98	0.015	ug/L	0.001	3	8	78	4
	Y	89		ug/L			428598	413323	1
	Kr	83		ug/L			613	589	1
[>	In	115		ug/L			928277	889068	2
|	Ag	107	0.001	ug/L	0.000	30	14	22	12
|	Cd	111	0.003	ug/L	0.004	144	65	73	19
|	Cd	114	0.001	ug/L	0.001	135	31	37	26
|	Sb	121	0.018	ug/L	0.004	19	40	257	14
|	Sb	123	0.021	ug/L	0.004	18	30	217	13
|	Ba	135	0.009	ug/L	0.002	20	13	44	12
[	Ba	137	0.013	ug/L	0.001	5	15	94	3
[>	Tb	159		ug/L			1061408	987331	0
|	Tl	205	0.019	ug/L	0.009	46	43	647	44
|	Pb	208	0.004	ug/L	0.001	15	368	499	5
|	Bi	209		ug/L			2680757	2539399	0
|	Th	232	0.113	ug/L	0.003	2	49	4576	2
[	U	238	0.001	ug/L	0.000	20	2	34	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:13:45
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	1758949	1
[	**Be**	**9**	**24.814**	ug/L	0.706	2	12	110915	1
	C	**13**		ug/L			138826	158940	1
	Cl	**37**		ug/L			4735446	4829358	2
[>	**Sc**	**45**		ug/L			1275890	1251203	0
[	**V**	**51**	**23.915**	ug/L	0.690	2	9212	578651	2
[	**V-1**	**51**	**23.999**	ug/L	0.714	2	60	571900	2
[	**Cr**	**52**	**25.013**	ug/L	0.151	0	27310	498238	1
[	**Cr**	**53**	**25.312**	ug/L	0.172	0	159	54142	1
[	**Mn**	**55**	**24.356**	ug/L	0.204	0	592	653620	1
[	**Co**	**59**	**24.987**	ug/L	0.097	0	80	458449	0
[>	**Ge**	**72**		ug/L			659198	626203	1
[	**Ni**	**60**	**26.363**	ug/L	0.261	0	16	98402	0
[	**Ni**	**62**	**26.017**	ug/L	0.664	2	275	13850	1
[	**Cu**	**63**	**26.555**	ug/L	0.459	1	372	218461	0
[	**Cu**	**65**	**26.528**	ug/L	0.360	1	41	97645	1
[	**Zn**	**66**	**81.233**	ug/L	1.345	1	192	189229	0
[	**Zn**	**67**	**75.981**	ug/L	0.597	0	31	29358	1
[	**Zn**	**68**	**79.310**	ug/L	1.775	2	189	132339	0
[	**As**	**75**	**24.794**	ug/L	0.858	3	267	50434	1
[	**As-1**	**75**	**25.369**	ug/L	1.128	4	10608	62050	2
[	**Se**	**82**	**80.785**	ug/L	1.239	1	-2	17984	1
[	**Se**	**78**	**79.325**	ug/L	1.705	2	10783	57749	0
[	**Mo**	**98**	**23.521**	ug/L	0.750	3	8	109987	1
	Y	**89**		ug/L			428598	419955	1
	Kr	**83**		ug/L			613	630	3
[>	**In**	**115**		ug/L			928277	903581	0
[	**Ag**	**107**	**26.452**	ug/L	0.418	1	14	243384	2
[	**Cd**	**111**	**24.798**	ug/L	0.155	0	65	101807	0
[	**Cd**	**114**	**24.461**	ug/L	0.108	0	31	252532	0
[	**Sb**	**121**	**23.727**	ug/L	0.462	1	40	289585	1
[	**Sb**	**123**	**23.613**	ug/L	0.103	0	30	217660	0
[	**Ba**	**135**	**24.775**	ug/L	0.133	0	13	90454	1
[	**Ba**	**137**	**24.790**	ug/L	0.274	1	15	156219	0
[>	**Tb**	**159**		ug/L			1061408	1008501	0
[	**Tl**	**205**	**23.730**	ug/L	0.191	0	43	773365	1
[	**Pb**	**208**	**24.792**	ug/L	0.131	0	368	1014001	0
[	**Bi**	**209**		ug/L			2680757	2566152	0
[	**Th**	**232**	**22.242**	ug/L	0.167	0	49	908436	0
[	**U**	**238**	**22.232**	ug/L	0.181	0	2	979235	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 A-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:18:56
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	1793892	1
[	Be	9	0.004	ug/L	0.002	57	12	29	35
	C	13		ug/L			138826	151695	2
	Cl	37		ug/L			4735446	4925280	1
[>	Sc	45		ug/L			1275890	1285705	1
[	V	51	-0.001	ug/L	0.009	1512	9212	9266	1
[	V-1	51	0.025	ug/L	0.003	9	60	683	9
[	Cr	52	-0.070	ug/L	0.030	42	27310	26158	0
[	Cr	53	0.023	ug/L	0.003	14	159	211	4
[	Mn	55	10.121	ug/L	0.247	2	592	279364	1
[	Co	59	0.032	ug/L	0.001	3	80	684	4
[>	Ge	72		ug/L			659198	641149	1
[	Ni	60	0.172	ug/L	0.007	3	16	674	3
[	Ni	62	-0.219	ug/L	0.018	8	275	150	4
[	Cu	63	0.218	ug/L	0.012	5	372	2192	3
[	Cu	65	0.214	ug/L	0.013	6	41	848	6
[	Zn	66	0.374	ug/L	0.024	6	192	1076	4
[	Zn	67	1.261	ug/L	0.092	7	31	528	5
[	Zn	68	1.135	ug/L	0.111	9	189	2119	7
[	As	75	0.163	ug/L	0.008	5	267	597	4
[	As-1	75	0.149	ug/L	0.021	14	10608	10630	1
[	Se	82	-0.002	ug/L	0.046	2170	-2	-3	318
[	Se	78	-0.008	ug/L	0.058	694	10783	10482	1
[	Mo	98	0.119	ug/L	0.007	6	8	580	5
	Y	89		ug/L			428598	414000	1
	Kr	83		ug/L			613	623	4
[>	In	115		ug/L			928277	903318	0
[	Ag	107	0.003	ug/L	0.001	37	14	38	24
[	Cd	111	0.009	ug/L	0.003	33	65	99	11
[	Cd	114	0.003	ug/L	0.001	32	31	63	17
[	Sb	121	0.022	ug/L	0.003	15	40	311	14
[	Sb	123	0.020	ug/L	0.004	18	30	217	16
[	Ba	135	13.529	ug/L	0.069	0	13	49385	0
[	Ba	137	13.499	ug/L	0.071	0	15	85051	0
[>	Tb	159		ug/L			1061408	1019575	0
[	Tl	205	0.004	ug/L	0.001	30	43	183	23
[	Pb	208	0.056	ug/L	0.001	2	368	2679	2
[	Bi	209		ug/L			2680757	2607381	0
[	Th	232	0.171	ug/L	0.007	4	49	7115	4
[	U	238	0.007	ug/L	0.000	6	2	315	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:23:04
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	1850693	2
	Be	9	0.014	ug/L	0.001	7	12	79	8
	C	13		ug/L			138826	160050	1
	Cl	37		ug/L			4735446	5149197	1
>	Sc	45		ug/L			1275890	1334551	0
	V	51	0.020	ug/L	0.008	42	9212	10145	2
	V-1	51	0.058	ug/L	0.002	3	60	1528	3
	Cr	52	-0.032	ug/L	0.033	103	27310	27925	2
	Cr	53	0.103	ug/L	0.009	8	159	400	4
	Mn	55	50.696	ug/L	0.480	0	592	1450347	0
	Co	59	0.134	ug/L	0.000	0	80	2708	0
>	Ge	72		ug/L			659198	626240	2
	Ni	60	0.846	ug/L	0.009	1	16	3175	3
	Ni	62	0.153	ug/L	0.020	13	275	341	3
	Cu	63	1.183	ug/L	0.024	2	372	10074	3
	Cu	65	1.050	ug/L	0.036	3	41	3901	2
	Zn	66	1.171	ug/L	0.045	3	192	2906	1
	Zn	67	5.445	ug/L	0.240	4	31	2130	2
	Zn	68	5.086	ug/L	0.059	1	189	8657	1
	As	75	0.742	ug/L	0.009	1	267	1755	1
	As-1	75	0.773	ug/L	0.083	10	10608	11659	1
	Se	82	0.081	ug/L	0.021	25	-2	15	28
	Se	78	0.262	ug/L	0.278	106	10783	10398	1
	Mo	98	0.645	ug/L	0.014	2	8	3026	0
	Y	89		ug/L			428598	409542	0
	Kr	83		ug/L			613	620	1
>	In	115		ug/L			928277	880962	0
	Ag	107	0.006	ug/L	0.000	0	14	65	0
	Cd	111	0.008	ug/L	0.004	43	65	95	13
	Cd	114	0.005	ug/L	0.000	7	31	78	4
	Sb	121	0.011	ug/L	0.003	26	40	165	19
	Sb	123	0.011	ug/L	0.002	21	30	124	15
	Ba	135	73.737	ug/L	0.976	1	13	262431	0
	Ba	137	73.411	ug/L	1.785	2	15	450956	1
>	Tb	159		ug/L			1061408	1021321	1
	Tl	205	0.007	ug/L	0.002	26	43	268	21
	Pb	208	0.006	ug/L	0.001	11	368	620	4
	Bi	209		ug/L			2680757	2424401	0
	Th	232	0.158	ug/L	0.004	2	49	6596	3
	U	238	0.021	ug/L	0.001	3	2	922	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1831115	1
[	Be	9	0.002	ug/L	0.002	86	12	22	37
	C	13		ug/L			138826	162268	2
	Cl	37		ug/L			4735446	4962910	3
[>	Sc	45		ug/L			1275890	1306073	1
[	V	51	0.013	ug/L	0.001	11	9212	9751	1
[	V-1	51	0.051	ug/L	0.002	4	60	1340	2
[	Cr	52	-0.078	ug/L	0.005	6	27310	26417	1
[	Cr	53	0.059	ug/L	0.006	9	159	295	3
[	Mn	55	50.320	ug/L	0.835	1	592	1408744	0
[	Co	59	0.135	ug/L	0.004	2	80	2676	2
[>	Ge	72		ug/L			659198	615087	0
[	Ni	60	0.857	ug/L	0.037	4	16	3155	3
[	Ni	62	0.186	ug/L	0.033	17	275	352	4
[	Cu	63	0.458	ug/L	0.005	1	372	4042	1
[	Cu	65	0.275	ug/L	0.014	5	41	1034	5
[	Zn	66	0.993	ug/L	0.009	0	192	2449	0
[	Zn	67	5.282	ug/L	0.005	0	31	2031	0
[	Zn	68	4.915	ug/L	0.243	4	189	8222	4
[	As	75	0.756	ug/L	0.006	0	267	1752	0
[	As-1	75	0.741	ug/L	0.104	13	10608	11389	1
[	Se	82	0.099	ug/L	0.033	33	-2	18	37
[	Se	78	0.132	ug/L	0.373	281	10783	10138	1
[	Mo	98	0.632	ug/L	0.009	1	8	2910	1
	Y	89		ug/L			428598	410302	1
	Kr	83		ug/L			613	615	3
[>	In	115		ug/L			928277	878496	1
[	Ag	107	0.005	ug/L	0.001	18	14	55	15
[	Cd	111	0.009	ug/L	0.003	34	65	96	11
[	Cd	114	0.004	ug/L	0.001	33	31	65	17
[	Sb	121	0.007	ug/L	0.002	21	40	124	14
[	Sb	123	0.007	ug/L	0.001	16	30	87	11
[	Ba	135	72.141	ug/L	1.921	2	13	256002	1
[	Ba	137	72.284	ug/L	1.024	1	15	442798	0
[>	Tb	159		ug/L			1061408	1007662	0
[	Tl	205	0.005	ug/L	0.002	35	43	194	27
[	Pb	208	0.007	ug/L	0.000	5	368	640	1
[	Bi	209		ug/L			2680757	2426748	0
[	Th	232	0.067	ug/L	0.007	10	49	2787	10
[	U	238	0.019	ug/L	0.001	3	2	855	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:31:19
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1800275	1
[	Be	9	23.631	ug/L	0.577	2	12	108133	2
	C	13		ug/L			138826	158450	0
	Cl	37		ug/L			4735446	5047518	2
[>	Sc	45		ug/L			1275890	1279172	1
|	V	51	23.352	ug/L	0.342	1	9212	577904	0
|	V-1	51	23.327	ug/L	0.290	1	60	568362	1
|	Cr	52	24.043	ug/L	0.353	1	27310	490598	0
|	Cr	53	23.953	ug/L	0.085	0	159	52386	1
|	Mn	55	82.090	ug/L	2.224	2	592	2250216	1
[	Co	59	23.518	ug/L	0.346	1	80	441100	0
[>	Ge	72		ug/L			659198	595495	1
|	Ni	60	26.647	ug/L	0.154	0	16	94597	1
|	Ni	62	25.803	ug/L	0.105	0	275	13069	1
|	Cu	63	25.901	ug/L	1.064	4	372	202686	4
|	Cu	65	25.754	ug/L	0.514	1	41	90150	1
|	Zn	66	76.085	ug/L	0.685	0	192	168581	0
|	Zn	67	76.066	ug/L	0.609	0	31	27951	0
|	Zn	68	78.551	ug/L	1.164	1	189	124676	1
|	As	75	25.652	ug/L	0.302	1	267	49630	0
|	As-1	75	26.448	ug/L	0.363	1	10608	61131	0
|	Se	82	77.106	ug/L	0.333	0	-2	16325	0
|	Se	78	76.617	ug/L	0.674	0	10783	53385	0
[	Mo	98	26.153	ug/L	0.359	1	8	116340	1
	Y	89		ug/L			428598	395104	1
	Kr	83		ug/L			613	583	2
[>	In	115		ug/L			928277	851372	0
|	Ag	107	26.318	ug/L	0.476	1	14	228142	1
|	Cd	111	24.739	ug/L	0.208	0	65	95703	1
|	Cd	114	24.428	ug/L	0.247	1	31	237624	1
|	Sb	121	24.655	ug/L	0.163	0	40	283558	0
|	Sb	123	24.815	ug/L	0.249	1	30	215525	1
|	Ba	135	100.327	ug/L	0.262	0	13	345097	0
[	Ba	137	99.695	ug/L	0.124	0	15	591927	0
[>	Tb	159		ug/L			1061408	995986	0
|	Tl	205	23.410	ug/L	0.160	0	43	753457	0
|	Pb	208	24.262	ug/L	0.200	0	368	979979	0
|	Bi	209		ug/L			2680757	2114751	11
|	Th	232	23.048	ug/L	0.166	0	49	929639	0
[	U	238	23.069	ug/L	0.312	1	2	1003441	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS45 APOST REN~~ 2222-7

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, November 28, 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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1775858	0
[	**Be**	**9**	**24.686**	ug/L	0.300	1	12	111437	1
	C	**13**		ug/L			138826	159036	1
	Cl	**37**		ug/L			4735446	5270589	0
[>	**Sc**	**45**		ug/L			1275890	1288029	1
[	**V**	**51**	**23.483**	ug/L	0.819	3	9212	584921	1
[	**V-1**	**51**	**23.476**	ug/L	0.689	2	60	575759	0
[	**Cr**	**52**	**24.669**	ug/L	0.982	3	27310	505965	1
[	**Cr**	**53**	**24.640**	ug/L	0.655	2	159	54244	1
[	**Mn**	**55**	**81.474**	ug/L	2.640	3	592	2248432	1
[	**Co**	**59**	**23.740**	ug/L	0.473	1	80	448301	0
[>	**Ge**	**72**		ug/L			659198	596621	1
[	**Ni**	**60**	**27.085**	ug/L	0.473	1	16	96315	1
[	**Ni**	**62**	**25.855**	ug/L	0.619	2	275	13116	1
[	**Cu**	**63**	**27.076**	ug/L	0.161	0	372	212253	1
[	**Cu**	**65**	**26.844**	ug/L	0.266	0	41	94148	1
[	**Zn**	**66**	**77.557**	ug/L	1.280	1	192	172138	0
[	**Zn**	**67**	**77.354**	ug/L	1.669	2	31	28471	0
[	**Zn**	**68**	**81.018**	ug/L	1.079	1	189	128815	0
[	**As**	**75**	**25.785**	ug/L	0.532	2	267	49973	0
[	**As-1**	**75**	**26.604**	ug/L	0.625	2	10608	61541	0
[	**Se**	**82**	**77.462**	ug/L	1.434	1	-2	16428	0
[	**Se**	**78**	**77.042**	ug/L	1.740	2	10783	53717	0
[	**Mo**	**98**	**25.667**	ug/L	0.770	3	8	114352	1
	Y	**89**		ug/L			428598	399006	0
	Kr	**83**		ug/L			613	588	2
[>	**In**	**115**		ug/L			928277	864048	1
[	**Ag**	**107**	**25.256**	ug/L	0.587	2	14	222201	2
[	**Cd**	**111**	**25.137**	ug/L	0.303	1	65	98675	0
[	**Cd**	**114**	**25.254**	ug/L	0.377	1	31	249272	0
[	**Sb**	**121**	**23.971**	ug/L	0.639	2	40	279722	1
[	**Sb**	**123**	**24.140**	ug/L	0.800	3	30	212724	2
[	**Ba**	**135**	**97.141**	ug/L	2.264	2	13	339032	1
[	**Ba**	**137**	**95.708**	ug/L	1.942	2	15	576592	0
[>	**Tb**	**159**		ug/L			1061408	993396	0
[	**Tl**	**205**	**23.759**	ug/L	0.155	0	43	762702	0
[	**Pb**	**208**	**24.751**	ug/L	0.322	1	368	997082	0
[	**Bi**	**209**		ug/L			2680757	2269374	10
[	**Th**	**232**	**23.898**	ug/L	0.282	1	49	961392	0
[	**U**	**238**	**24.013**	ug/L	0.138	0	2	1041803	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1738667	1
[	**Be**	**9**	**0.021**	ug/L	0.001	3	12	103	4
	C	**13**		ug/L			138826	158314	0
	Cl	**37**		ug/L			4735446	5399417	0
[>	**Sc**	**45**		ug/L			1275890	1276308	0
[	**V**	**51**	**0.480**	ug/L	0.017	3	9212	20888	2
[	**V-1**	**51**	**0.522**	ug/L	0.010	1	60	12740	2
[	**Cr**	**52**	**0.045**	ug/L	0.021	45	27310	28192	1
[	**Cr**	**53**	**0.193**	ug/L	0.007	3	159	580	2
[	**Mn**	**55**	**547.957**	ug/L	9.288	1	592	14987753	2
[	**Co**	**59**	**0.155**	ug/L	0.009	5	80	2983	5
[>	**Ge**	**72**		ug/L			659198	566695	1
[	**Ni**	**60**	**0.923**	ug/L	0.009	1	16	3131	0
[	**Ni**	**62**	**0.533**	ug/L	0.248	46	275	488	23
[	**Cu**	**63**	**1.426**	ug/L	0.018	1	372	10921	1
[	**Cu**	**65**	**1.206**	ug/L	0.017	1	41	4051	0
[	**Zn**	**66**	**1.230**	ug/L	0.059	4	192	2755	4
[	**Zn**	**67**	**4.286**	ug/L	0.274	6	31	1523	5
[	**Zn**	**68**	**4.057**	ug/L	0.140	3	189	6282	3
[	**As**	**75**	**2.187**	ug/L	0.026	1	267	4237	1
[	**As-1**	**75**	**2.437**	ug/L	0.136	5	10608	13638	1
[	**Se**	**82**	**0.166**	ug/L	0.023	13	-2	30	16
[	**Se**	**78**	**1.197**	ug/L	0.375	31	10783	9917	1
[	**Mo**	**98**	**0.428**	ug/L	0.013	3	8	1818	2
	Y	**89**		ug/L			428598	401234	1
	Kr	**83**		ug/L			613	594	4
[>	**In**	**115**		ug/L			928277	832453	1
[	**Ag**	**107**	**0.006**	ug/L	0.002	28	14	60	20
[	**Cd**	**111**	**0.025**	ug/L	0.002	7	65	153	3
[	**Cd**	**114**	**0.008**	ug/L	0.001	16	31	108	10
[	**Sb**	**121**	**0.085**	ug/L	0.005	5	40	991	3
[	**Sb**	**123**	**0.086**	ug/L	0.004	4	30	755	3
[	**Ba**	**135**	**61.227**	ug/L	0.186	0	13	205929	1
[	**Ba**	**137**	**60.749**	ug/L	0.641	1	15	352636	0
[>	**Tb**	**159**		ug/L			1061408	1009069	0
[	**Tl**	**205**	**0.005**	ug/L	0.003	57	43	206	46
[	**Pb**	**208**	**0.037**	ug/L	0.004	11	368	1867	9
[	**Bi**	**209**		ug/L			2680757	1855062	1
[	**Th**	**232**	**0.359**	ug/L	0.007	1	49	14713	1
[	**U**	**238**	**0.022**	ug/L	0.003	13	2	976	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1828830	0
	Be	9	0.002	ug/L	0.001	28	12	23	13
	C	13		ug/L			138826	164239	0
	Cl	37		ug/L			4735446	5296920	1
>	Sc	45		ug/L			1275890	1284053	0
	V	51	0.161	ug/L	0.014	8	9212	13199	1
	V-1	51	0.193	ug/L	0.006	3	60	4778	2
	Cr	52	-0.023	ug/L	0.041	177	27310	27033	2
	Cr	53	0.092	ug/L	0.004	4	159	361	2
	Mn	55	224.071	ug/L	1.636	0	592	6166238	1
	Co	59	0.089	ug/L	0.001	0	80	1751	0
>	Ge	72		ug/L			659198	570564	1
	Ni	60	1.175	ug/L	0.023	1	16	4011	3
	Ni	62	-0.146	ug/L	0.048	32	275	169	13
	Cu	63	0.669	ug/L	0.027	4	372	5326	1
	Cu	65	0.546	ug/L	0.011	2	41	1867	2
	Zn	66	1.363	ug/L	0.045	3	192	3057	3
	Zn	67	15.673	ug/L	0.766	4	31	5536	3
	Zn	68	12.713	ug/L	0.359	2	189	19465	1
	As	75	0.130	ug/L	0.013	9	267	470	3
	As-1	75	0.271	ug/L	0.139	51	10608	9684	0
	Se	82	0.204	ug/L	0.042	20	-2	38	20
	Se	78	0.751	ug/L	0.508	67	10783	9739	0
	Mo	98	0.045	ug/L	0.002	3	8	197	4
	Y	89		ug/L			428598	396692	1
	Kr	83		ug/L			613	580	2
>	In	115		ug/L			928277	828936	0
	Ag	107	0.004	ug/L	0.000	10	14	45	7
	Cd	111	0.014	ug/L	0.003	18	65	111	8
	Cd	114	0.001	ug/L	0.001	64	31	41	20
	Sb	121	0.020	ug/L	0.003	14	40	260	11
	Sb	123	0.019	ug/L	0.004	22	30	183	18
	Ba	135	269.390	ug/L	0.643	0	13	902182	0
	Ba	137	269.454	ug/L	2.204	0	15	1557653	0
>	Tb	159		ug/L			1061408	1004841	1
	Tl	205	0.003	ug/L	0.001	23	43	141	17
	Pb	208	0.060	ug/L	0.002	2	368	2793	2
	Bi	209		ug/L			2680757	1838342	0
	Th	232	0.072	ug/L	0.009	12	49	2978	13
	U	238	0.087	ug/L	0.000	0	2	3829	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1783663	0
[	Be	9	0.005	ug/L	0.002	46	12	34	29
	C	13		ug/L			138826	155217	1
	Cl	37		ug/L			4735446	5355800	1
[>	Sc	45		ug/L			1275890	1261435	1
[	V	51	0.065	ug/L	0.008	12	9212	10675	1
[	V-1	51	0.100	ug/L	0.003	3	60	2469	1
[	Cr	52	0.012	ug/L	0.028	229	27310	27232	1
[	Cr	53	0.138	ug/L	0.012	8	159	453	4
[	Mn	55	138.824	ug/L	2.167	1	592	3752632	0
[	Co	59	0.101	ug/L	0.004	3	80	1948	2
[>	Ge	72		ug/L			659198	561658	2
[	Ni	60	0.822	ug/L	0.050	6	16	2762	4
[	Ni	62	0.131	ug/L	0.040	30	275	296	5
[	Cu	63	1.938	ug/L	0.085	4	372	14589	2
[	Cu	65	0.869	ug/L	0.033	3	41	2902	2
[	Zn	66	1.849	ug/L	0.081	4	192	4021	2
[	Zn	67	29.856	ug/L	0.380	1	31	10362	0
[	Zn	68	24.857	ug/L	0.467	1	189	37312	0
[	As	75	1.745	ug/L	0.065	3	267	3395	1
[	As-1	75	1.940	ug/L	0.198	10	10608	12600	0
[	Se	82	0.161	ug/L	0.043	26	-2	29	28
[	Se	78	0.980	ug/L	0.523	53	10783	9710	1
[	Mo	98	0.451	ug/L	0.014	3	8	1897	3
	Y	89		ug/L			428598	394416	1
	Kr	83		ug/L			613	584	6
[>	In	115		ug/L			928277	826203	0
[	Ag	107	0.002	ug/L	0.000	23	14	30	13
[	Cd	111	0.014	ug/L	0.004	27	65	109	12
[	Cd	114	0.001	ug/L	0.001	46	31	38	12
[	Sb	121	0.012	ug/L	0.001	6	40	175	4
[	Sb	123	0.014	ug/L	0.002	17	30	144	13
[	Ba	135	496.677	ug/L	2.119	0	13	1657868	0
[	Ba	137	567.608	ug/L	7.146	1	15	3270405	1
[>	Tb	159		ug/L			1061408	1000665	0
[	Tl	205	0.003	ug/L	0.001	20	43	134	13
[	Pb	208	0.016	ug/L	0.001	3	368	990	1
[	Bi	209		ug/L			2680757	1848778	0
[	Th	232	0.068	ug/L	0.008	11	49	2817	10
[	U	238	0.009	ug/L	0.001	10	2	390	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:51:58
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1750307	0
[	Be	9	50.503	ug/L	1.143	2	12	224666	2
	C	13		ug/L			138826	146401	1
	Cl	37		ug/L			4735446	5144574	3
[>	Sc	45		ug/L			1275890	1241018	1
[	V	51	45.722	ug/L	0.417	0	9212	1089217	0
[	V-1	51	45.521	ug/L	0.229	0	60	1076000	0
[	Cr	52	47.911	ug/L	1.028	2	27310	922061	0
[	Cr	53	47.187	ug/L	0.561	1	159	99966	0
[	Mn	55	47.192	ug/L	1.016	2	592	1255487	1
[	Co	59	47.375	ug/L	1.265	2	80	861905	1
[>	Ge	72		ug/L			659198	600192	1
[	Ni	60	50.495	ug/L	0.848	1	16	180650	2
[	Ni	62	49.390	ug/L	1.066	2	275	24980	1
[	Cu	63	50.762	ug/L	0.170	0	372	400041	2
[	Cu	65	49.415	ug/L	0.647	1	41	174301	1
[	Zn	66	49.564	ug/L	0.810	1	192	110738	1
[	Zn	67	50.724	ug/L	0.665	1	31	18796	2
[	Zn	68	50.564	ug/L	1.091	2	189	80932	0
[	As	75	50.026	ug/L	0.433	0	267	97319	1
[	As-1	75	50.028	ug/L	0.389	0	10608	107936	1
[	Se	82	52.188	ug/L	0.790	1	-2	11134	0
[	Se	78	51.413	ug/L	0.789	1	10783	39332	0
[	Mo	98	49.053	ug/L	0.581	1	8	219927	2
	Y	89		ug/L			428598	392432	1
	Kr	83		ug/L			613	598	1
[>	In	115		ug/L			928277	870708	0
[	Ag	107	48.441	ug/L	0.454	0	14	429425	0
[	Cd	111	49.716	ug/L	0.598	1	65	196628	1
[	Cd	114	50.622	ug/L	0.361	0	31	503585	1
[	Sb	121	49.704	ug/L	0.386	0	40	584569	0
[	Sb	123	49.610	ug/L	0.344	0	30	440646	1
[	Ba	135	49.720	ug/L	0.526	1	13	174912	1
[	Ba	137	49.604	ug/L	0.267	0	15	301223	1
[>	Tb	159		ug/L			1061408	1020074	1
[	Tl	205	45.017	ug/L	0.753	1	43	1483603	0
[	Pb	208	47.229	ug/L	0.786	1	368	1953153	0
[	Bi	209		ug/L			2680757	2526641	0
[	Th	232	43.958	ug/L	1.159	2	49	1815377	0
[	U	238	44.141	ug/L	0.457	1	2	1966359	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:58:50
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	1687764	1
	Be	9	0.000	ug/L	0.000	4880	12	11	9
	C	13		ug/L			138826	143211	4
	Cl	37		ug/L			4735446	4991783	2
>	Sc	45		ug/L			1275890	1166384	1
	V	51	-0.007	ug/L	0.014	193	9212	8263	2
	V-1	51	0.001	ug/L	0.000	32	60	75	9
	Cr	52	-0.026	ug/L	0.052	201	27310	24501	2
	Cr	53	0.002	ug/L	0.003	140	159	150	2
	Mn	55	0.001	ug/L	0.000	42	592	558	2
	Co	59	0.002	ug/L	0.000	29	80	102	8
>	Ge	72		ug/L			659198	586488	0
	Ni	60	0.003	ug/L	0.001	24	16	25	9
	Ni	62	-0.306	ug/L	0.002	0	275	95	1
	Cu	63	-0.024	ug/L	0.002	7	372	146	10
	Cu	65	0.007	ug/L	0.002	33	41	62	14
	Zn	66	0.077	ug/L	0.018	23	192	339	12
	Zn	67	0.074	ug/L	0.005	7	31	54	3
	Zn	68	0.098	ug/L	0.018	18	189	322	9
	As	75	0.034	ug/L	0.002	5	267	302	1
	As-1	75	0.192	ug/L	0.037	19	10608	9806	1
	Se	82	0.045	ug/L	0.046	102	-2	6	142
	Se	78	0.615	ug/L	0.089	14	10783	9939	1
	Mo	98	0.009	ug/L	0.001	6	8	47	6
	Y	89		ug/L			428598	380987	1
	Kr	83		ug/L			613	570	5
>	In	115		ug/L			928277	842042	0
	Ag	107	0.002	ug/L	0.001	62	14	26	31
	Cd	111	0.008	ug/L	0.002	27	65	89	9
	Cd	114	0.000	ug/L	0.001	209	31	32	24
	Sb	121	0.060	ug/L	0.005	9	40	716	8
	Sb	123	0.064	ug/L	0.010	15	30	578	14
	Ba	135	0.002	ug/L	0.001	50	13	20	20
	Ba	137	0.004	ug/L	0.001	21	15	35	12
>	Tb	159		ug/L			1061408	963105	1
	Tl	205	0.010	ug/L	0.004	45	43	349	40
	Pb	208	0.005	ug/L	0.001	12	368	541	4
	Bi	209		ug/L			2680757	2527636	1
	Th	232	0.169	ug/L	0.016	9	49	6645	9
	U	238	0.002	ug/L	0.000	10	2	94	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:02:59
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	1725659	4
	Be	9	0.002	ug/L	0.001	34	12	21	18
	C	13		ug/L			138826	153999	4
	Cl	37		ug/L			4735446	5031079	1
>	Sc	45		ug/L			1275890	1178625	2
	V	51	0.006	ug/L	0.006	95	9212	8638	1
	V-1	51	0.006	ug/L	0.000	2	60	188	3
	Cr	52	0.012	ug/L	0.021	175	27310	25438	1
	Cr	53	0.012	ug/L	0.004	36	159	172	6
	Mn	55	0.078	ug/L	0.002	2	592	2518	3
	Co	59	0.002	ug/L	0.000	19	80	117	8
>	Ge	72		ug/L			659198	590364	1
	Ni	60	0.016	ug/L	0.003	15	16	72	13
	Ni	62	-0.298	ug/L	0.002	0	275	100	1
	Cu	63	0.071	ug/L	0.004	5	372	883	4
	Cu	65	0.092	ug/L	0.011	12	41	355	11
	Zn	66	1.589	ug/L	0.033	2	192	3659	1
	Zn	67	1.422	ug/L	0.085	5	31	545	6
	Zn	68	1.553	ug/L	0.055	3	189	2610	4
	As	75	0.023	ug/L	0.012	52	267	283	7
	As-1	75	0.217	ug/L	0.066	30	10608	9918	0
	Se	82	0.005	ug/L	0.067	1448	-2	-1	844
	Se	78	0.698	ug/L	0.215	30	10783	10051	0
	Mo	98	0.006	ug/L	0.001	15	8	35	12
	Y	89		ug/L			428598	388446	1
	Kr	83		ug/L			613	574	4
>	In	115		ug/L			928277	855452	0
	Ag	107	0.002	ug/L	0.001	56	14	31	32
	Cd	111	0.007	ug/L	0.003	35	65	88	10
	Cd	114	0.001	ug/L	0.000	8	31	42	2
	Sb	121	0.022	ug/L	0.004	18	40	287	16
	Sb	123	0.022	ug/L	0.003	12	30	218	11
	Ba	135	0.119	ug/L	0.005	3	13	425	4
	Ba	137	0.113	ug/L	0.001	1	15	686	1
>	Tb	159		ug/L			1061408	972652	1
	Tl	205	0.018	ug/L	0.008	44	43	599	42
	Pb	208	0.004	ug/L	0.000	1	368	506	1
	Bi	209		ug/L			2680757	2516002	1
	Th	232	0.130	ug/L	0.005	3	49	5156	1
	U	238	0.001	ug/L	0.000	13	2	46	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:07:07
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	1696975	1
	Be	9	24.159	ug/L	0.579	2	12	104182	0
	C	13		ug/L			138826	156591	2
	Cl	37		ug/L			4735446	4964920	4
>	Sc	45		ug/L			1275890	1210650	1
	V	51	23.449	ug/L	0.543	2	9212	549090	0
	V-1	51	23.494	ug/L	0.642	2	60	541605	0
	Cr	52	24.355	ug/L	0.435	1	27310	470042	2
	Cr	53	24.512	ug/L	0.550	2	159	50720	0
	Mn	55	23.909	ug/L	0.531	2	592	620688	1
	Co	59	24.265	ug/L	0.372	1	80	430713	0
>	Ge	72		ug/L			659198	596387	0
	Ni	60	25.878	ug/L	0.735	2	16	91993	2
	Ni	62	26.021	ug/L	0.391	1	275	13198	1
	Cu	63	26.085	ug/L	0.286	1	372	204415	0
	Cu	65	26.044	ug/L	0.283	1	41	91311	1
	Zn	66	79.373	ug/L	2.062	2	192	176111	1
	Zn	67	74.240	ug/L	1.021	1	31	27322	1
	Zn	68	78.918	ug/L	0.288	0	189	125452	0
	As	75	24.345	ug/L	0.600	2	267	47185	2
	As-1	75	25.123	ug/L	0.674	2	10608	58635	1
	Se	82	78.990	ug/L	1.105	1	-2	16749	1
	Se	78	78.291	ug/L	1.018	1	10783	54419	0
	Mo	98	23.211	ug/L	0.303	1	8	103404	0
	Y	89		ug/L			428598	390481	0
	Kr	83		ug/L			613	592	1
>	In	115		ug/L			928277	873171	1
	Ag	107	25.185	ug/L	1.179	4	14	223817	3
	Cd	111	24.410	ug/L	0.340	1	65	96831	0
	Cd	114	24.533	ug/L	0.686	2	31	244673	1
	Sb	121	23.732	ug/L	0.626	2	40	279842	0
	Sb	123	23.658	ug/L	0.695	2	30	210664	1
	Ba	135	24.928	ug/L	0.549	2	13	87926	0
	Ba	137	24.570	ug/L	0.831	3	15	149566	1
>	Tb	159		ug/L			1061408	987462	0
	Tl	205	23.723	ug/L	0.082	0	43	756985	0
	Pb	208	25.153	ug/L	0.116	0	368	1007315	0
	Bi	209		ug/L			2680757	2578245	0
	Th	232	22.550	ug/L	0.122	0	49	901779	0
	U	238	22.523	ug/L	0.081	0	2	971377	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 A-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:12:18
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	1816081	2
[	Be	9	0.001	ug/L	0.001	37	12	19	10
	C	13		ug/L			138826	148839	0
	Cl	37		ug/L			4735446	5102507	1
[>	Sc	45		ug/L			1275890	1243792	1
[	V	51	0.012	ug/L	0.009	75	9212	9263	2
[	V-1	51	0.027	ug/L	0.002	7	60	698	6
[	Cr	52	-0.041	ug/L	0.038	94	27310	25859	2
[	Cr	53	0.013	ug/L	0.005	35	159	183	4
[	Mn	55	31.688	ug/L	0.667	2	592	845017	1
[	Co	59	0.021	ug/L	0.001	3	80	464	3
[>	Ge	72		ug/L			659198	601885	2
[	Ni	60	0.238	ug/L	0.009	3	16	868	1
[	Ni	62	-0.239	ug/L	0.018	7	275	131	8
[	Cu	63	0.100	ug/L	0.003	3	372	1128	2
[	Cu	65	0.105	ug/L	0.002	2	41	407	1
[	Zn	66	0.758	ug/L	0.021	2	192	1870	2
[	Zn	67	4.309	ug/L	0.294	6	31	1625	4
[	Zn	68	3.588	ug/L	0.172	4	189	5918	3
[	As	75	0.089	ug/L	0.025	28	267	417	9
[	As-1	75	0.091	ug/L	0.135	148	10608	9861	0
[	Se	82	0.019	ug/L	0.101	545	-2	0	2180
[	Se	78	0.079	ug/L	0.454	574	10783	9887	0
[	Mo	98	0.061	ug/L	0.003	4	8	280	2
	Y	89		ug/L			428598	404217	0
	Kr	83		ug/L			613	598	6
[>	In	115		ug/L			928277	880308	0
[	Ag	107	0.002	ug/L	0.001	24	14	33	13
[	Cd	111	0.007	ug/L	0.001	15	65	91	4
[	Cd	114	0.002	ug/L	0.000	25	31	47	8
[	Sb	121	0.021	ug/L	0.004	17	40	292	14
[	Sb	123	0.021	ug/L	0.005	23	30	218	20
[	Ba	135	57.335	ug/L	0.251	0	13	203922	0
[	Ba	137	57.026	ug/L	0.588	1	15	350093	0
[>	Tb	159		ug/L			1061408	1014265	0
[	Tl	205	0.003	ug/L	0.001	44	43	136	31
[	Pb	208	0.018	ug/L	0.002	9	368	1107	6
[	Bi	209		ug/L			2680757	2540069	0
[	Th	232	0.189	ug/L	0.007	3	49	7827	3
[	U	238	0.037	ug/L	0.001	3	2	1621	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:16:26
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	1805491	0
	Be	9	0.006	ug/L	0.002	27	12	40	18
	C	13		ug/L			138826	158506	1
	Cl	37		ug/L			4735446	5259002	3
>	Sc	45		ug/L			1275890	1275062	1
	V	51	0.084	ug/L	0.013	15	9212	11249	1
	V-1	51	0.122	ug/L	0.002	1	60	3034	3
	Cr	52	-0.059	ug/L	0.050	85	27310	26149	2
	Cr	53	0.077	ug/L	0.008	10	159	327	6
	Mn	55	163.587	ug/L	6.172	3	592	4468774	2
	Co	59	0.093	ug/L	0.003	3	80	1812	3
>	Ge	72		ug/L			659198	563961	0
	Ni	60	1.061	ug/L	0.037	3	16	3579	2
	Ni	62	-0.046	ug/L	0.049	105	275	213	9
	Cu	63	0.593	ug/L	0.005	0	372	4701	0
	Cu	65	0.427	ug/L	0.017	4	41	1450	3
	Zn	66	2.979	ug/L	0.140	4	192	6406	3
	Zn	67	19.317	ug/L	0.089	0	31	6742	0
	Zn	68	15.794	ug/L	0.419	2	189	23868	2
	As	75	0.405	ug/L	0.026	6	267	966	3
	As-1	75	0.556	ug/L	0.050	8	10608	10101	0
	Se	82	0.239	ug/L	0.048	20	-2	45	20
	Se	78	0.823	ug/L	0.152	18	10783	9668	0
	Mo	98	0.332	ug/L	0.005	1	8	1404	1
	Y	89		ug/L			428598	392294	1
	Kr	83		ug/L			613	569	2
>	In	115		ug/L			928277	825708	0
	Ag	107	0.005	ug/L	0.000	6	14	58	5
	Cd	111	0.021	ug/L	0.004	20	65	136	11
	Cd	114	0.003	ug/L	0.001	31	31	56	15
	Sb	121	0.013	ug/L	0.003	22	40	179	17
	Sb	123	0.012	ug/L	0.003	23	30	131	18
	Ba	135	303.897	ug/L	1.903	0	13	1013771	0
	Ba	137	304.799	ug/L	2.252	0	15	1755099	0
>	Tb	159		ug/L			1061408	1003468	0
	Tl	205	0.005	ug/L	0.002	31	43	198	24
	Pb	208	0.005	ug/L	0.001	11	368	566	4
	Bi	209		ug/L			2680757	1836216	0
	Th	232	0.168	ug/L	0.009	5	49	6870	5
	U	238	0.174	ug/L	0.001	0	2	7639	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:20:33
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1817696	1
	Be	9	0.007	ug/L	0.001	10	12	47	9
	C	13		ug/L			138826	161083	1
	Cl	37		ug/L			4735446	5255068	3
>	Sc	45		ug/L			1275890	1271361	1
	V	51	0.096	ug/L	0.006	6	9212	11502	0
	V-1	51	0.124	ug/L	0.003	2	60	3062	1
	Cr	52	-0.034	ug/L	0.024	71	27310	26561	1
	Cr	53	0.066	ug/L	0.010	15	159	302	5
	Mn	55	166.100	ug/L	1.246	0	592	4525842	1
	Co	59	0.094	ug/L	0.003	3	80	1832	2
>	Ge	72		ug/L			659198	565799	1
	Ni	60	1.063	ug/L	0.016	1	16	3599	1
	Ni	62	-0.049	ug/L	0.015	30	275	213	1
	Cu	63	0.564	ug/L	0.026	4	372	4506	4
	Cu	65	0.420	ug/L	0.004	0	41	1431	2
	Zn	66	2.752	ug/L	0.050	1	192	5951	0
	Zn	67	18.987	ug/L	0.333	1	31	6648	1
	Zn	68	15.677	ug/L	0.834	5	189	23763	4
	As	75	0.390	ug/L	0.006	1	267	942	1
	As-1	75	0.499	ug/L	0.041	8	10608	10027	0
	Se	82	0.271	ug/L	0.037	13	-2	52	15
	Se	78	0.689	ug/L	0.153	22	10783	9627	0
	Mo	98	0.330	ug/L	0.004	1	8	1400	2
	Y	89		ug/L			428598	395841	1
	Kr	83		ug/L			613	558	5
>	In	115		ug/L			928277	830957	0
	Ag	107	0.003	ug/L	0.000	13	14	39	9
	Cd	111	0.015	ug/L	0.003	19	65	113	9
	Cd	114	0.003	ug/L	0.001	34	31	59	18
	Sb	121	0.009	ug/L	0.002	18	40	136	13
	Sb	123	0.008	ug/L	0.001	11	30	99	8
	Ba	135	303.059	ug/L	1.040	0	13	1017414	0
	Ba	137	303.610	ug/L	1.395	0	15	1759404	0
>	Tb	159		ug/L			1061408	1007077	0
	Tl	205	0.004	ug/L	0.001	29	43	174	22
	Pb	208	0.017	ug/L	0.001	3	368	1025	2
	Bi	209		ug/L			2680757	1849473	1
	Th	232	0.071	ug/L	0.006	7	49	2933	7
	U	238	0.175	ug/L	0.002	1	2	7704	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:24:40
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1805124	0
[	**Be**	**9**	**23.313**	ug/L	0.400	1	12	106967	1
	C	**13**		ug/L			138826	156728	0
	Cl	**37**		ug/L			4735446	5133361	0
[>	**Sc**	**45**		ug/L			1275890	1256454	2
[	**V**	**51**	**23.514**	ug/L	0.649	2	9212	571361	0
[	**V-1**	**51**	**23.560**	ug/L	0.683	2	60	563664	0
[	**Cr**	**52**	**23.925**	ug/L	0.477	1	27310	479619	1
[	**Cr**	**53**	**24.089**	ug/L	0.630	2	159	51735	1
[	**Mn**	**55**	**194.823**	ug/L	4.437	2	592	5244441	0
[	**Co**	**59**	**22.696**	ug/L	0.474	2	80	418173	2
[>	**Ge**	**72**		ug/L			659198	551905	1
[	**Ni**	**60**	**27.040**	ug/L	0.225	0	16	88967	1
[	**Ni**	**62**	**26.090**	ug/L	0.500	1	275	12243	1
[	**Cu**	**63**	**26.524**	ug/L	0.235	0	372	192365	2
[	**Cu**	**65**	**26.443**	ug/L	0.265	1	41	85793	1
[	**Zn**	**66**	**77.177**	ug/L	1.063	1	192	158502	2
[	**Zn**	**67**	**89.077**	ug/L	2.328	2	31	30326	1
[	**Zn**	**68**	**89.557**	ug/L	0.253	0	189	131719	0
[	**As**	**75**	**25.476**	ug/L	0.345	1	267	45682	0
[	**As-1**	**75**	**26.379**	ug/L	0.560	2	10608	56528	0
[	**Se**	**82**	**78.308**	ug/L	1.109	1	-2	15364	0
[	**Se**	**78**	**78.162**	ug/L	1.725	2	10783	50287	0
[	**Mo**	**98**	**26.549**	ug/L	0.465	1	8	109442	0
	Y	**89**		ug/L			428598	390429	0
	Kr	**83**		ug/L			613	576	3
[>	**In**	**115**		ug/L			928277	815631	1
[	**Ag**	**107**	**23.101**	ug/L	0.658	2	14	191798	1
[	**Cd**	**111**	**23.977**	ug/L	0.607	2	65	88847	2
[	**Cd**	**114**	**24.212**	ug/L	0.404	1	31	225601	0
[	**Sb**	**121**	**24.240**	ug/L	0.155	0	40	267076	1
[	**Sb**	**123**	**24.610**	ug/L	0.469	1	30	204735	0
[	**Ba**	**135**	**338.906**	ug/L	5.103	1	13	1116602	0
[	**Ba**	**137**	**339.297**	ug/L	1.822	0	15	1929832	0
[>	**Tb**	**159**		ug/L			1061408	1009128	0
[	**Tl**	**205**	**22.106**	ug/L	0.041	0	43	720885	0
[	**Pb**	**208**	**22.823**	ug/L	0.165	0	368	934066	0
[	**Bi**	**209**		ug/L			2680757	1817105	0
[	**Th**	**232**	**21.882**	ug/L	0.014	0	49	894300	0
[	**U**	**238**	**22.464**	ug/L	0.064	0	2	990074	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS61 APOST REN~~ ZZZZZZ
Sample Dil Factor: 2 H11-2912
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:28:48
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	1831687	0
	Be	9	23.417	ug/L	0.451	1	12	109037	2
	C	13		ug/L			138826	158851	0
	Cl	37		ug/L			4735446	5292656	1
>	Sc	45		ug/L			1275890	1267559	2
	V	51	23.523	ug/L	0.430	1	9212	576766	2
	V-1	51	23.590	ug/L	0.312	1	60	569503	1
	Cr	52	24.404	ug/L	0.588	2	27310	492940	1
	Cr	53	24.641	ug/L	0.558	2	159	53379	1
	Mn	55	187.055	ug/L	6.611	3	592	5079135	2
	Co	59	23.384	ug/L	0.603	2	80	434487	0
>	Ge	72		ug/L			659198	558809	0
	Ni	60	26.851	ug/L	0.266	0	16	89448	1
	Ni	62	26.067	ug/L	0.266	1	275	12386	0
	Cu	63	25.999	ug/L	0.191	0	372	190904	0
	Cu	65	26.126	ug/L	0.225	0	41	85829	1
	Zn	66	79.099	ug/L	0.478	0	192	164466	0
	Zn	67	89.380	ug/L	1.011	1	31	30816	1
	Zn	68	89.990	ug/L	1.648	1	189	134013	1
	As	75	26.003	ug/L	0.183	0	267	47210	0
	As-1	75	26.574	ug/L	0.117	0	10608	57600	0
	Se	82	79.588	ug/L	0.826	1	-2	15812	0
	Se	78	78.253	ug/L	0.521	0	10783	50972	0
	Mo	98	26.201	ug/L	0.248	0	8	109371	0
	Y	89		ug/L			428598	390015	2
	Kr	83		ug/L			613	579	1
>	In	115		ug/L			928277	820326	0
	Ag	107	23.143	ug/L	0.391	1	14	193284	0
	Cd	111	24.906	ug/L	0.149	0	65	92828	0
	Cd	114	25.208	ug/L	0.302	1	31	236249	0
	Sb	121	24.298	ug/L	0.193	0	40	269248	0
	Sb	123	24.160	ug/L	0.465	1	30	202159	0
	Ba	135	326.223	ug/L	3.145	0	13	1081104	0
	Ba	137	325.935	ug/L	2.211	0	15	1864534	0
>	Tb	159		ug/L			1061408	1010364	0
	Tl	205	22.882	ug/L	0.241	1	43	747045	0
	Pb	208	23.215	ug/L	0.128	0	368	951262	0
	Bi	209		ug/L			2680757	1817061	1
	Th	232	22.692	ug/L	0.276	1	49	928453	0
	U	238	23.251	ug/L	0.132	0	2	1026008	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:32:55
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1790687	3
[	Be	9	0.005	ug/L	0.002	30	12	36	24
	C	13		ug/L			138826	156309	2
	Cl	37		ug/L			4735446	5574548	3
[>	Sc	45		ug/L			1275890	1260195	1
[	V	51	0.066	ug/L	0.009	13	9212	10690	1
[	V-1	51	0.104	ug/L	0.002	1	60	2564	0
[	Cr	52	0.003	ug/L	0.018	566	27310	27031	1
[	Cr	53	0.139	ug/L	0.007	4	159	455	4
[	Mn	55	131.017	ug/L	2.668	2	592	3537899	0
[	Co	59	0.093	ug/L	0.002	1	80	1795	0
[>	Ge	72		ug/L			659198	559762	0
[	Ni	60	0.823	ug/L	0.050	6	16	2760	5
[	Ni	62	0.228	ug/L	0.068	29	275	340	8
[	Cu	63	1.951	ug/L	0.052	2	372	14638	2
[	Cu	65	0.927	ug/L	0.034	3	41	3084	2
[	Zn	66	1.568	ug/L	0.022	1	192	3424	0
[	Zn	67	28.884	ug/L	0.587	2	31	9992	1
[	Zn	68	23.616	ug/L	0.303	1	189	35346	0
[	As	75	1.773	ug/L	0.023	1	267	3436	0
[	As-1	75	2.001	ug/L	0.056	2	10608	12674	0
[	Se	82	0.170	ug/L	0.080	47	-2	31	50
[	Se	78	1.062	ug/L	0.161	15	10783	9725	0
[	Mo	98	0.469	ug/L	0.011	2	8	1968	2
	Y	89		ug/L			428598	390177	1
	Kr	83		ug/L			613	556	7
[>	In	115		ug/L			928277	825866	0
[	Ag	107	0.005	ug/L	0.001	28	14	56	22
[	Cd	111	0.015	ug/L	0.006	38	65	113	18
[	Cd	114	0.004	ug/L	0.000	10	31	63	5
[	Sb	121	0.060	ug/L	0.002	3	40	702	3
[	Sb	123	0.058	ug/L	0.000	0	30	518	0
[	Ba	135	481.466	ug/L	6.747	1	13	1606454	1
[	Ba	137	553.032	ug/L	6.443	1	15	3185201	1
[>	Tb	159		ug/L			1061408	995865	0
[	Tl	205	0.004	ug/L	0.001	12	43	166	9
[	Pb	208	0.014	ug/L	0.000	2	368	913	1
[	Bi	209		ug/L			2680757	1855755	0
[	Th	232	0.269	ug/L	0.038	14	49	10894	13
[	U	238	0.013	ug/L	0.001	11	2	558	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:37:03
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	1806073	0
[	Be	9	0.004	ug/L	0.001	33	12	32	20
	C	13		ug/L			138826	156219	1
	Cl	37		ug/L			4735446	5214150	0
[>	Sc	45		ug/L			1275890	1248632	2
[	V	51	0.079	ug/L	0.018	23	9212	10877	2
[	V-1	51	0.122	ug/L	0.003	2	60	2964	2
[	Cr	52	-0.074	ug/L	0.047	63	27310	25321	1
[	Cr	53	0.082	ug/L	0.012	14	159	330	8
[	Mn	55	131.382	ug/L	5.180	3	592	3513960	1
[	Co	59	0.283	ug/L	0.009	3	80	5262	1
[>	Ge	72		ug/L			659198	545683	0
[	Ni	60	1.360	ug/L	0.012	0	16	4435	1
[	Ni	62	0.720	ug/L	0.086	11	275	555	7
[	Cu	63	1.069	ug/L	0.018	1	372	7963	1
[	Cu	65	0.406	ug/L	0.009	2	41	1336	2
[	Zn	66	1.382	ug/L	0.006	0	192	2962	0
[	Zn	67	19.846	ug/L	0.393	1	31	6702	2
[	Zn	68	16.129	ug/L	0.157	0	189	23584	0
[	As	75	8.905	ug/L	0.065	0	267	15932	0
[	As-1	75	9.165	ug/L	0.073	0	10608	25150	0
[	Se	82	0.083	ug/L	0.102	123	-2	13	145
[	Se	78	1.478	ug/L	0.040	2	10783	9697	0
[	Mo	98	2.745	ug/L	0.017	0	8	11195	0
	Y	89		ug/L			428598	389441	1
	Kr	83		ug/L			613	602	8
[>	In	115		ug/L			928277	836503	1
[	Ag	107	0.002	ug/L	0.001	37	14	27	20
[	Cd	111	0.021	ug/L	0.004	21	65	137	11
[	Cd	114	0.010	ug/L	0.001	10	31	120	8
[	Sb	121	0.014	ug/L	0.003	18	40	193	13
[	Sb	123	0.018	ug/L	0.003	17	30	184	14
[	Ba	135	313.616	ug/L	3.914	1	13	1059775	0
[	Ba	137	319.011	ug/L	8.512	2	15	1860518	1
[>	Tb	159		ug/L			1061408	998477	0
[	Tl	205	0.004	ug/L	0.000	12	43	162	9
[	Pb	208	0.022	ug/L	0.001	3	368	1220	2
[	Bi	209		ug/L			2680757	1863115	0
[	Th	232	0.074	ug/L	0.007	9	49	3053	8
[	U	238	0.075	ug/L	0.001	1	2	3255	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS61 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:41:10
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	1778263	0
	Be	9	0.002	ug/L	0.002	99	12	22	43
	C	13		ug/L			138826	156616	4
	Cl	37		ug/L			4735446	5090217	1
>	Sc	45		ug/L			1275890	1286258	1
	V	51	-0.024	ug/L	0.004	18	9212	8698	1
	V-1	51	0.018	ug/L	0.001	8	60	497	8
	Cr	52	-0.014	ug/L	0.012	83	27310	27255	1
	Cr	53	0.135	ug/L	0.004	2	159	457	2
	Mn	55	28.193	ug/L	0.219	0	592	777695	1
	Co	59	0.031	ug/L	0.002	7	80	661	7
>	Ge	72		ug/L			659198	592463	1
	Ni	60	0.337	ug/L	0.008	2	16	1205	1
	Ni	62	-0.028	ug/L	0.018	64	275	233	2
	Cu	63	0.278	ug/L	0.006	2	372	2494	2
	Cu	65	0.202	ug/L	0.006	3	41	739	2
	Zn	66	1.173	ug/L	0.063	5	192	2754	4
	Zn	67	7.952	ug/L	0.063	0	31	2932	1
	Zn	68	7.041	ug/L	0.073	1	189	11273	0
	As	75	0.058	ug/L	0.009	15	267	351	5
	As-1	75	0.074	ug/L	0.079	107	10608	9676	0
	Se	82	0.090	ug/L	0.048	53	-2	16	61
	Se	78	0.173	ug/L	0.300	173	10783	9788	0
	Mo	98	0.024	ug/L	0.002	7	8	115	7
	Y	89		ug/L			428598	399126	0
	Kr	83		ug/L			613	574	4
>	In	115		ug/L			928277	862938	1
	Ag	107	0.003	ug/L	0.002	59	14	43	41
	Cd	111	0.006	ug/L	0.004	61	65	85	18
	Cd	114	0.002	ug/L	0.002	93	31	52	41
	Sb	121	0.008	ug/L	0.001	9	40	131	8
	Sb	123	0.010	ug/L	0.002	19	30	117	16
	Ba	135	115.632	ug/L	1.929	1	13	403077	0
	Ba	137	114.303	ug/L	2.385	2	15	687744	0
>	Tb	159		ug/L			1061408	1019466	0
	Tl	205	0.004	ug/L	0.004	89	43	172	68
	Pb	208	0.010	ug/L	0.006	61	368	767	33
	Bi	209		ug/L			2680757	2499063	1
	Th	232	0.055	ug/L	0.004	6	49	2327	7
	U	238	0.006	ug/L	0.002	38	2	258	38

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:45:19
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1721431	0
	Be	9	51.197	ug/L	0.375	0	12	224010	1
	C	13		ug/L			138826	146438	0
	Cl	37		ug/L			4735446	5227703	1
>	Sc	45		ug/L			1275890	1223567	1
	V	51	45.983	ug/L	0.360	0	9212	1080051	1
	V-1	51	46.102	ug/L	0.102	0	60	1074461	0
	Cr	52	47.810	ug/L	0.606	1	27310	907323	0
	Cr	53	48.232	ug/L	1.211	2	159	100739	2
	Mn	55	47.267	ug/L	0.689	1	592	1239768	0
	Co	59	47.357	ug/L	1.371	2	80	849622	2
>	Ge	72		ug/L			659198	582005	1
	Ni	60	51.042	ug/L	0.184	0	16	177083	1
	Ni	62	50.190	ug/L	0.402	0	275	24614	1
	Cu	63	51.328	ug/L	0.432	0	372	392200	0
	Cu	65	51.572	ug/L	0.552	1	41	176399	0
	Zn	66	50.736	ug/L	0.362	0	192	109924	0
	Zn	67	51.837	ug/L	1.120	2	31	18627	2
	Zn	68	50.912	ug/L	0.757	1	189	79047	2
	As	75	51.097	ug/L	0.391	0	267	96394	1
	As-1	75	51.084	ug/L	0.541	1	10608	106684	1
	Se	82	53.221	ug/L	0.492	0	-2	11011	1
	Se	78	52.377	ug/L	0.279	0	10783	38680	1
	Mo	98	50.052	ug/L	0.603	1	8	217591	1
	Y	89		ug/L			428598	387612	1
	Kr	83		ug/L			613	580	2
>	In	115		ug/L			928277	872370	0
	Ag	107	49.007	ug/L	0.837	1	14	435244	0
	Cd	111	51.135	ug/L	0.849	1	65	202600	0
	Cd	114	50.705	ug/L	0.556	1	31	505332	0
	Sb	121	50.476	ug/L	0.934	1	40	594737	0
	Sb	123	50.103	ug/L	0.662	1	30	445828	0
	Ba	135	50.014	ug/L	0.184	0	13	176280	0
	Ba	137	49.380	ug/L	0.841	1	15	300394	0
>	Tb	159		ug/L			1061408	1003014	1
	Tl	205	46.382	ug/L	0.637	1	43	1503091	0
	Pb	208	48.644	ug/L	0.454	0	368	1978188	0
	Bi	209		ug/L			2680757	2553170	0
	Th	232	44.767	ug/L	0.908	2	49	1818002	0
	U	238	45.442	ug/L	0.920	2	2	1990206	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:52:12
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1717463	1
	Be	9	-0.000	ug/L	0.001	142	12	9	31
	C	13		ug/L			138826	143342	0
	Cl	37		ug/L			4735446	5230761	5
>	Sc	45		ug/L			1275890	1183570	1
	V	51	-0.025	ug/L	0.005	21	9212	7972	1
	V-1	51	0.001	ug/L	0.000	16	60	86	7
	Cr	52	-0.096	ug/L	0.017	17	27310	23624	0
	Cr	53	-0.000	ug/L	0.010	29809	159	147	13
	Mn	55	-0.000	ug/L	0.001	323	592	542	2
	Co	59	0.000	ug/L	0.000	38	80	81	2
>	Ge	72		ug/L			659198	571809	1
	Ni	60	0.000	ug/L	0.001	226	16	15	11
	Ni	62	-0.102	ug/L	0.062	61	275	190	15
	Cu	63	-0.016	ug/L	0.003	16	372	204	11
	Cu	65	0.007	ug/L	0.002	31	41	58	10
	Zn	66	0.088	ug/L	0.007	7	192	353	5
	Zn	67	0.060	ug/L	0.014	22	31	48	11
	Zn	68	0.113	ug/L	0.007	5	189	337	4
	As	75	0.042	ug/L	0.019	46	267	308	10
	As-1	75	0.264	ug/L	0.059	22	10608	9695	0
	Se	82	0.009	ug/L	0.049	538	-2	0	1324
	Se	78	0.850	ug/L	0.204	23	10783	9817	0
	Mo	98	0.009	ug/L	0.000	3	8	45	4
	Y	89		ug/L			428598	381825	1
	Kr	83		ug/L			613	587	3
>	In	115		ug/L			928277	854521	1
	Ag	107	0.002	ug/L	0.001	41	14	31	22
	Cd	111	0.008	ug/L	0.002	20	65	90	7
	Cd	114	0.001	ug/L	0.001	131	31	36	27
	Sb	121	0.063	ug/L	0.005	8	40	759	6
	Sb	123	0.062	ug/L	0.007	11	30	571	10
	Ba	135	0.003	ug/L	0.001	42	13	22	17
	Ba	137	0.003	ug/L	0.000	6	15	34	5
>	Tb	159		ug/L			1061408	963988	1
	Tl	205	0.010	ug/L	0.005	47	43	348	41
	Pb	208	0.005	ug/L	0.001	14	368	529	6
	Bi	209		ug/L			2680757	2555518	0
	Th	232	0.168	ug/L	0.011	6	49	6591	5
	U	238	0.003	ug/L	0.000	7	2	110	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 18:56:21
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1768886	3
[	Be	9	0.023	ug/L	0.009	39	12	117	36
	C	13		ug/L			138826	159496	0
	Cl	37		ug/L			4735446	5139635	0
[>	Sc	45		ug/L			1275890	1193380	1
[	V	51	0.016	ug/L	0.011	70	9212	8973	3
[	V-1	51	0.019	ug/L	0.009	49	60	492	44
[	Cr	52	0.062	ug/L	0.011	17	27310	26654	1
[	Cr	53	0.074	ug/L	0.005	7	159	300	4
[	Mn	55	0.121	ug/L	0.121	100	592	3656	85
[	Co	59	0.008	ug/L	0.008	99	80	209	64
[>	Ge	72		ug/L			659198	588695	1
[	Ni	60	0.015	ug/L	0.012	80	16	67	64
[	Ni	62	~~-0.157~~	ug/L	0.032	20	275	168	9
[	Cu	63	0.914	ug/L	0.016	1	372	7390	1
[	Cu	65	~~0.939~~	ug/L	0.032	3	41	3285	5
[	Zn	66	0.774	ug/L	0.015	1	192	1866	3
[	Zn	67	0.697	ug/L	0.046	6	31	280	7
[	Zn	68	0.738	ug/L	0.039	5	189	1326	5
[	As	75	0.023	ug/L	0.005	22	267	282	1
[	As-1	75	0.217	ug/L	0.093	43	10608	9889	0
[	Se	82	0.066	ug/L	0.097	146	-2	11	177
[	Se	78	0.718	ug/L	0.306	42	10783	10032	0
[	Mo	98	0.021	ug/L	0.004	21	8	98	18
	Y	89		ug/L			428598	390333	0
	Kr	83		ug/L			613	543	9
[>	In	115		ug/L			928277	869886	1
[	Ag	107	0.002	ug/L	0.001	68	14	32	38
[	Cd	111	0.009	ug/L	0.002	20	65	97	6
[	Cd	114	0.001	ug/L	0.003	179	31	44	57
[	Sb	121	0.022	ug/L	0.005	20	40	300	17
[	Sb	123	0.024	ug/L	0.003	11	30	239	9
[	Ba	135	0.030	ug/L	0.034	113	13	116	100
[	Ba	137	0.034	ug/L	0.039	112	15	220	104
[>	Tb	159		ug/L			1061408	1004650	0
[	Tl	205	0.023	ug/L	0.014	62	43	782	58
[	Pb	208	0.015	ug/L	0.023	154	368	952	97
[	Bi	209		ug/L			2680757	2591427	0
[	Th	232	0.142	ug/L	0.009	6	49	5828	5
[	U	238	0.008	ug/L	0.013	153	2	372	151

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:00:28
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1751081	0
	Be	9	24.683	ug/L	0.650	2	12	109866	2
	C	13		ug/L			138826	153965	0
	Cl	37		ug/L			4735446	5022910	1
>	Sc	45		ug/L			1275890	1212205	1
	V	51	24.047	ug/L	0.387	1	9212	563688	1
	V-1	51	24.025	ug/L	0.467	1	60	554683	1
	Cr	52	25.177	ug/L	0.131	0	27310	485692	1
	Cr	53	25.099	ug/L	0.474	1	159	52003	0
	Mn	55	24.403	ug/L	0.719	2	592	634605	4
	Co	59	24.615	ug/L	0.087	0	80	437551	1
>	Ge	72		ug/L			659198	581920	2
	Ni	60	26.819	ug/L	0.842	3	16	93031	3
	Ni	62	26.421	ug/L	0.543	2	275	13069	2
	Cu	63	27.286	ug/L	0.296	1	372	208602	1
	Cu	65	27.196	ug/L	0.900	3	41	92987	1
	Zn	66	83.070	ug/L	2.126	2	192	179801	1
	Zn	67	76.498	ug/L	1.939	2	31	27459	0
	Zn	68	80.040	ug/L	1.083	1	189	124140	2
	As	75	25.245	ug/L	0.431	1	267	47724	0
	As-1	75	26.002	ug/L	0.770	2	10608	58871	0
	Se	82	82.211	ug/L	1.094	1	-2	17007	1
	Se	78	81.285	ug/L	1.999	2	10783	54751	0
	Mo	98	25.592	ug/L	0.270	1	8	111246	2
	Y	89		ug/L			428598	394124	1
	Kr	83		ug/L			613	569	0
>	In	115		ug/L			928277	879600	1
	Ag	107	25.189	ug/L	0.305	1	14	225583	0
	Cd	111	24.998	ug/L	0.408	1	65	99894	0
	Cd	114	24.771	ug/L	0.265	1	31	248931	0
	Sb	121	24.880	ug/L	0.368	1	40	295617	1
	Sb	123	25.033	ug/L	0.398	1	30	224625	1
	Ba	135	25.465	ug/L	0.313	1	13	90504	1
	Ba	137	25.357	ug/L	0.266	1	15	155558	1
>	Tb	159		ug/L			1061408	1009320	0
	Tl	205	24.043	ug/L	0.105	0	43	784174	0
	Pb	208	25.225	ug/L	0.106	0	368	1032574	1
	Bi	209		ug/L			2680757	2604409	0
	Th	232	22.766	ug/L	0.211	0	49	930546	0
	U	238	22.752	ug/L	0.310	1	2	1002921	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 A-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:05:40
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1831472	1
	Be	**9**	**0.001**	ug/L	0.000	16	12	18	5
	C	**13**		ug/L			138826	154933	0
	Cl	**37**		ug/L			4735446	5449036	2
>	**Sc**	**45**		ug/L			1275890	1246863	0
	V	**51**	**0.001**	ug/L	0.005	471	9212	9028	0
	V-1	**51**	**0.030**	ug/L	0.000	1	60	773	1
	Cr	**52**	**-0.075**	ug/L	0.014	19	27310	25284	0
	Cr	**53**	**0.029**	ug/L	0.003	11	159	217	4
	Mn	**55**	**41.301**	ug/L	0.538	1	592	1104021	0
	Co	**59**	**0.024**	ug/L	0.000	1	80	513	0
>	**Ge**	**72**		ug/L			659198	582553	0
	Ni	**60**	**0.329**	ug/L	0.008	2	16	1157	2
	Ni	**62**	**-0.097**	ug/L	0.014	14	275	196	3
	Cu	**63**	**0.183**	ug/L	0.010	5	372	1727	4
	Cu	**65**	**0.175**	ug/L	0.013	7	41	634	7
	Zn	**66**	**0.478**	ug/L	0.010	2	192	1205	2
	Zn	**67**	**4.576**	ug/L	0.040	0	31	1670	0
	Zn	**68**	**3.755**	ug/L	0.044	1	189	5990	0
	As	**75**	**0.035**	ug/L	0.018	52	267	301	11
	As-1	**75**	**0.088**	ug/L	0.070	79	10608	9541	1
	Se	**82**	**0.017**	ug/L	0.052	310	-2	0	1184
	Se	**78**	**0.256**	ug/L	0.234	91	10783	9672	1
	Mo	**98**	**0.004**	ug/L	0.002	36	8	25	26
	Y	**89**		ug/L			428598	395347	1
	Kr	**83**		ug/L			613	582	1
>	**In**	**115**		ug/L			928277	880147	2
	Ag	**107**	**0.003**	ug/L	0.002	72	14	36	43
	Cd	**111**	**0.011**	ug/L	0.004	39	65	105	13
	Cd	**114**	**0.001**	ug/L	0.002	112	31	43	33
	Sb	**121**	**0.022**	ug/L	0.002	8	40	298	9
	Sb	**123**	**0.023**	ug/L	0.002	6	30	239	6
	Ba	**135**	**66.145**	ug/L	2.243	3	13	235098	1
	Ba	**137**	**65.425**	ug/L	1.702	2	15	401432	0
>	**Tb**	**159**		ug/L			1061408	1017683	0
	Tl	**205**	**0.004**	ug/L	0.001	21	43	183	15
	Pb	**208**	**0.016**	ug/L	0.001	6	368	1027	4
	Bi	**209**		ug/L			2680757	2490499	1
	Th	**232**	**0.164**	ug/L	0.006	3	49	6792	4
	U	**238**	**0.003**	ug/L	0.001	20	2	148	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:09:47
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1844215	0
[	Be	9	0.004	ug/L	0.001	22	12	32	14
	C	13		ug/L			138826	166664	2
	Cl	37		ug/L			4735446	5333574	1
[>	Sc	45		ug/L			1275890	1287166	2
[	V	51	0.091	ug/L	0.020	22	9212	11525	2
[	V-1	51	0.137	ug/L	0.005	3	60	3415	1
[	Cr	52	-0.062	ug/L	0.071	114	27310	26333	3
[	Cr	53	0.101	ug/L	0.016	15	159	382	7
[	Mn	55	216.166	ug/L	7.687	3	592	5960238	1
[	Co	59	0.100	ug/L	0.002	2	80	1971	3
[>	Ge	72		ug/L			659198	547190	1
[	Ni	60	1.594	ug/L	0.052	3	16	5210	2
[	Ni	62	0.135	ug/L	0.037	27	275	290	5
[	Cu	63	0.757	ug/L	0.013	1	372	5745	2
[	Cu	65	0.621	ug/L	0.008	1	41	2032	2
[	Zn	66	1.628	ug/L	0.035	2	192	3470	2
[	Zn	67	18.917	ug/L	0.451	2	31	6406	1
[	Zn	68	15.042	ug/L	0.057	0	189	22065	0
[	As	75	0.115	ug/L	0.010	8	267	425	5
[	As-1	75	0.324	ug/L	0.012	3	10608	9385	1
[	Se	82	0.224	ug/L	0.056	25	-2	41	27
[	Se	78	1.054	ug/L	0.044	4	10783	9502	1
[	Mo	98	0.007	ug/L	0.001	19	8	37	14
	Y	89		ug/L			428598	387907	1
	Kr	83		ug/L			613	593	3
[>	In	115		ug/L			928277	816455	0
[	Ag	107	0.003	ug/L	0.000	13	14	37	8
[	Cd	111	0.012	ug/L	0.001	6	65	102	2
[	Cd	114	0.002	ug/L	0.001	52	31	44	18
[	Sb	121	0.011	ug/L	0.002	13	40	159	11
[	Sb	123	0.012	ug/L	0.001	4	30	124	4
[	Ba	135	349.951	ug/L	0.947	0	13	1154349	1
[	Ba	137	414.912	ug/L	8.297	1	15	2362185	1
[>	Tb	159		ug/L			1061408	1003666	0
[	Tl	205	0.006	ug/L	0.001	12	43	222	10
[	Pb	208	0.003	ug/L	0.001	36	368	469	9
[	Bi	209		ug/L			2680757	1759032	0
[	Th	232	0.148	ug/L	0.015	10	49	6064	9
[	U	238	0.008	ug/L	0.001	13	2	345	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:13:54
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	1840633	0
[	Be	9	0.003	ug/L	0.000	7	12	25	4
	C	13		ug/L			138826	166339	5
	Cl	37		ug/L			4735446	5042393	0
[>	Sc	45		ug/L			1275890	1266568	3
[	V	51	0.103	ug/L	0.020	19	9212	11627	1
[	V-1	51	0.134	ug/L	0.010	7	60	3293	4
[	Cr	52	-0.015	ug/L	0.042	283	27310	26810	1
[	Cr	53	0.096	ug/L	0.010	10	159	364	2
[	Mn	55	218.090	ug/L	11.055	5	592	5912450	1
[	Co	59	0.101	ug/L	0.005	4	80	1949	1
[>	Ge	72		ug/L			659198	548272	1
[	Ni	60	1.607	ug/L	0.049	3	16	5264	1
[	Ni	62	0.122	ug/L	0.034	27	275	285	6
[	Cu	63	0.790	ug/L	0.031	3	372	5987	2
[	Cu	65	0.594	ug/L	0.024	4	41	1948	2
[	Zn	66	1.615	ug/L	0.031	1	192	3451	3
[	Zn	67	18.865	ug/L	0.553	2	31	6401	2
[	Zn	68	15.310	ug/L	0.267	1	189	22495	0
[	As	75	0.126	ug/L	0.003	2	267	445	0
[	As-1	75	0.348	ug/L	0.090	25	10608	9445	0
[	Se	82	0.286	ug/L	0.051	17	-2	53	17
[	Se	78	1.126	ug/L	0.324	28	10783	9557	0
[	Mo	98	0.011	ug/L	0.003	29	8	50	24
	Y	89		ug/L			428598	390462	0
	Kr	83		ug/L			613	572	5
[>	In	115		ug/L			928277	810216	1
[	Ag	107	0.003	ug/L	0.001	26	14	39	17
[	Cd	111	0.016	ug/L	0.005	32	65	115	15
[	Cd	114	0.001	ug/L	0.000	62	31	34	11
[	Sb	121	0.008	ug/L	0.001	10	40	126	8
[	Sb	123	0.009	ug/L	0.001	7	30	99	6
[	Ba	135	351.711	ug/L	9.471	2	13	1150953	1
[	Ba	137	368.721	ug/L	31.954	8	15	2084826	9
[>	Tb	159		ug/L			1061408	1003215	0
[	Tl	205	0.004	ug/L	0.001	19	43	172	14
[	Pb	208	0.007	ug/L	0.001	8	368	619	3
[	Bi	209		ug/L			2680757	1766777	0
[	Th	232	0.066	ug/L	0.004	5	49	2731	5
[	U	238	0.007	ug/L	0.000	3	2	314	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:18:02
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1805108	0
[	Be	9	22.443	ug/L	0.251	1	12	102975	1
	C	13		ug/L			138826	163287	1
	Cl	37		ug/L			4735446	4985753	0
[>	Sc	45		ug/L			1275890	1278680	2
[	V	51	23.174	ug/L	0.670	2	9212	573158	1
[	V-1	51	23.198	ug/L	0.660	2	60	564787	0
[	Cr	52	23.055	ug/L	0.521	2	27310	471292	1
[	Cr	53	23.141	ug/L	0.581	2	159	50579	0
[	Mn	55	240.588	ug/L	9.596	3	592	6588616	1
[	Co	59	22.019	ug/L	0.490	2	80	412766	1
[>	Ge	72		ug/L			659198	546159	0
[	Ni	60	26.880	ug/L	0.131	0	16	87518	0
[	Ni	62	25.726	ug/L	0.963	3	275	11949	3
[	Cu	63	26.157	ug/L	0.375	1	372	187724	1
[	Cu	65	26.203	ug/L	0.096	0	41	84129	0
[	Zn	66	72.560	ug/L	0.743	1	192	147471	1
[	Zn	67	85.718	ug/L	1.425	1	31	28884	1
[	Zn	68	85.580	ug/L	1.567	1	189	124566	1
[	As	75	24.426	ug/L	0.367	1	267	43356	1
[	As-1	75	25.052	ug/L	0.491	1	10608	53573	1
[	Se	82	73.466	ug/L	0.238	0	-2	14266	0
[	Se	78	72.634	ug/L	0.803	1	10783	46881	0
[	Mo	98	26.242	ug/L	0.860	3	8	107051	2
	Y	89		ug/L			428598	392417	0
	Kr	83		ug/L			613	591	4
[>	In	115		ug/L			928277	809729	1
[	Ag	107	21.776	ug/L	0.431	1	14	179516	1
[	Cd	111	23.383	ug/L	0.304	1	65	86021	0
[	Cd	114	23.462	ug/L	0.098	0	31	217052	1
[	Sb	121	23.689	ug/L	0.212	0	40	259105	0
[	Sb	123	23.576	ug/L	0.569	2	30	194713	1
[	Ba	135	380.637	ug/L	10.789	2	13	1244889	1
[	Ba	137	442.905	ug/L	6.552	1	15	2500746	0
[>	Tb	159		ug/L			1061408	1015998	0
[	Tl	205	21.486	ug/L	0.205	0	43	705389	0
[	Pb	208	21.625	ug/L	0.139	0	368	891080	0
[	Bi	209		ug/L			2680757	1768047	0
[	Th	232	21.036	ug/L	0.440	2	49	865453	1
[	U	238	21.628	ug/L	0.290	1	2	959632	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS80 APOST REN~~ 222222
Sample Dil Factor: 2
Comments: #11-29-12
Sample Date/Time: Wednesday, November 28, 2012 19:22:09
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	1806759	2
	Be	9	23.060	ug/L	0.918	3	12	105835	1
	C	13		ug/L			138826	167363	3
	Cl	37		ug/L			4735446	5208177	5
>	Sc	45		ug/L			1275890	1270333	1
	V	51	24.029	ug/L	0.335	1	9212	590320	1
	V-1	51	24.071	ug/L	0.473	1	60	582424	1
	Cr	52	23.889	ug/L	0.617	2	27310	484419	3
	Cr	53	24.041	ug/L	0.313	1	159	52214	1
	Mn	55	241.757	ug/L	6.715	2	592	6582915	3
	Co	59	22.579	ug/L	0.544	2	80	420588	2
>	Ge	72		ug/L			659198	538260	1
	Ni	60	28.047	ug/L	0.733	2	16	89978	1
	Ni	62	26.916	ug/L	0.241	0	275	12313	1
	Cu	63	26.718	ug/L	0.474	1	372	188950	1
	Cu	65	26.608	ug/L	0.433	1	41	84192	1
	Zn	66	76.219	ug/L	1.389	1	192	152653	2
	Zn	67	90.426	ug/L	0.338	0	31	30030	0
	Zn	68	87.614	ug/L	3.006	3	189	125659	2
	As	75	25.837	ug/L	0.557	2	267	45181	1
	As-1	75	26.736	ug/L	0.501	1	10608	55761	0
	Se	82	78.942	ug/L	1.248	1	-2	15107	1
	Se	78	78.773	ug/L	1.025	1	10783	49362	0
	Mo	98	26.206	ug/L	0.781	2	8	105353	2
	Y	89		ug/L			428598	385099	2
	Kr	83		ug/L			613	569	2
>	In	115		ug/L			928277	807212	1
	Ag	107	22.226	ug/L	0.458	2	14	182661	1
	Cd	111	24.385	ug/L	0.414	1	65	89426	0
	Cd	114	24.864	ug/L	0.301	1	31	229295	0
	Sb	121	23.771	ug/L	0.518	2	40	259167	1
	Sb	123	23.536	ug/L	0.194	0	30	193807	0
	Ba	135	376.434	ug/L	3.644	0	13	1227580	0
	Ba	137	435.994	ug/L	1.510	0	15	2454320	0
>	Tb	159		ug/L			1061408	1002283	1
	Tl	205	22.058	ug/L	0.279	1	43	714371	0
	Pb	208	22.349	ug/L	0.281	1	368	908474	1
	Bi	209		ug/L			2680757	1743413	0
	Th	232	21.916	ug/L	0.267	1	49	889590	1
	U	238	22.866	ug/L	0.261	1	2	1000903	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:26:17
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	1794277	0
[	**Be**	**9**	**0.014**	ug/L	0.003	18	12	76	15
	C	**13**		ug/L			138826	157377	1
	Cl	**37**		ug/L			4735446	5017669	2
[>	**Sc**	**45**		ug/L			1275890	1238587	1
|	**V**	**51**	**0.324**	ug/L	0.014	4	9212	16590	2
|	**V-1**	**51**	**0.356**	ug/L	0.011	3	60	8456	1
|	**Cr**	**52**	**0.029**	ug/L	0.045	151	27310	27069	4
|	**Cr**	**53**	**0.143**	ug/L	0.007	4	159	457	4
|	**Mn**	**55**	**167.778**	ug/L	0.860	0	592	4453390	1
[	**Co**	**59**	**0.652**	ug/L	0.017	2	80	11918	3
[>	**Ge**	**72**		ug/L			659198	546930	1
|	**Ni**	**60**	**1.525**	ug/L	0.023	1	16	4985	0
|	**Ni**	**62**	**0.234**	ug/L	0.019	8	275	335	2
|	**Cu**	**63**	**1.023**	ug/L	0.036	3	372	7646	3
|	**Cu**	**65**	**0.595**	ug/L	0.017	2	41	1946	1
|	**Zn**	**66**	**1.580**	ug/L	0.032	2	192	3371	3
|	**Zn**	**67**	**18.849**	ug/L	0.561	2	31	6382	4
|	**Zn**	**68**	**15.326**	ug/L	0.237	1	189	22466	0
|	**As**	**75**	**0.152**	ug/L	0.015	9	267	490	5
|	**As-1**	**75**	**0.335**	ug/L	0.029	8	10608	9399	1
|	**Se**	**82**	**0.268**	ug/L	0.052	19	-2	49	19
|	**Se**	**78**	**0.973**	ug/L	0.135	13	10783	9455	1
[	**Mo**	**98**	**0.079**	ug/L	0.005	5	8	331	6
	Y	**89**		ug/L			428598	385727	0
	Kr	**83**		ug/L			613	569	4
[>	**In**	**115**		ug/L			928277	801420	1
|	**Ag**	**107**	**0.004**	ug/L	0.000	5	14	48	4
|	**Cd**	**111**	**0.017**	ug/L	0.003	17	65	117	9
|	**Cd**	**114**	**0.002**	ug/L	0.001	39	31	42	13
|	**Sb**	**121**	**0.075**	ug/L	0.007	9	40	848	10
|	**Sb**	**123**	**0.075**	ug/L	0.004	5	30	643	5
|	**Ba**	**135**	**354.013**	ug/L	1.922	0	13	1146212	1
[	**Ba**	**137**	**372.952**	ug/L	36.736	9	15	2085150	10
[>	**Tb**	**159**		ug/L			1061408	992547	1
|	**Tl**	**205**	**0.005**	ug/L	0.001	10	43	213	7
|	**Pb**	**208**	**0.004**	ug/L	0.000	5	368	516	2
|	**Bi**	**209**		ug/L			2680757	1731698	1
|	**Th**	**232**	**0.337**	ug/L	0.046	13	49	13615	15
[	**U**	**238**	**0.026**	ug/L	0.002	6	2	1127	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS80 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:30:24
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	1791701	1
	Be	9	0.001	ug/L	0.001	288	12	14	45
	C	13		ug/L			138826	155660	1
	Cl	37		ug/L			4735446	5077381	0
>	Sc	45		ug/L			1275890	1247570	1
	V	51	-0.000	ug/L	0.009	2015	9212	8995	1
	V-1	51	0.053	ug/L	0.005	8	60	1328	7
	Cr	52	0.009	ug/L	0.025	277	27310	26868	1
	Cr	53	0.201	ug/L	0.010	4	159	584	2
	Mn	55	7.323	ug/L	0.077	1	592	196316	0
	Co	59	0.016	ug/L	0.003	15	80	370	10
>	Ge	72		ug/L			659198	568132	1
	Ni	60	0.127	ug/L	0.005	3	16	444	4
	Ni	62	0.052	ug/L	0.040	75	275	262	6
	Cu	63	2.654	ug/L	0.079	2	372	20096	1
	Cu	65	0.122	ug/L	0.005	4	41	442	3
	Zn	66	0.852	ug/L	0.075	8	192	1962	6
	Zn	67	2.915	ug/L	0.114	3	31	1047	3
	Zn	68	2.744	ug/L	0.166	6	189	4310	4
	As	75	0.325	ug/L	0.003	1	267	826	2
	As-1	75	0.551	ug/L	0.133	24	10608	10164	1
	Se	82	0.149	ug/L	0.055	36	-2	27	41
	Se	78	0.967	ug/L	0.448	46	10783	9816	1
	Mo	98	1.229	ug/L	0.033	2	8	5222	2
	Y	89		ug/L			428598	394966	0
	Kr	83		ug/L			613	557	3
>	In	115		ug/L			928277	851164	0
	Ag	107	0.002	ug/L	0.000	27	14	27	13
	Cd	111	0.006	ug/L	0.007	106	65	84	30
	Cd	114	0.002	ug/L	0.001	33	31	46	11
	Sb	121	0.020	ug/L	0.002	12	40	267	11
	Sb	123	0.023	ug/L	0.002	7	30	227	7
	Ba	135	34.071	ug/L	0.415	1	13	117168	0
	Ba	137	33.503	ug/L	0.227	0	15	198879	0
>	Tb	159		ug/L			1061408	1014995	1
	Tl	205	0.002	ug/L	0.000	9	43	111	5
	Pb	208	0.010	ug/L	0.000	3	368	761	1
	Bi	209		ug/L			2680757	1946806	0
	Th	232	0.158	ug/L	0.016	10	49	6548	10
	U	238	0.013	ug/L	0.001	7	2	574	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV11
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:34:33
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1731822	1
[	Be	9	49.806	ug/L	1.468	2	12	219193	1
	C	13		ug/L			138826	143439	0
	Cl	37		ug/L			4735446	5089528	0
[>	Sc	45		ug/L			1275890	1222510	0
[	V	51	46.638	ug/L	0.522	1	9212	1094286	0
[	V-1	51	46.639	ug/L	0.630	1	60	1085958	0
[	Cr	52	48.099	ug/L	0.539	1	27310	911880	0
[	Cr	53	48.101	ug/L	0.888	1	159	100378	0
[	Mn	55	46.730	ug/L	0.709	1	592	1224759	1
[	Co	59	47.182	ug/L	0.804	1	80	845724	1
[>	Ge	72		ug/L			659198	585285	1
[	Ni	60	50.401	ug/L	0.245	0	16	175835	1
[	Ni	62	51.188	ug/L	1.342	2	275	25235	1
[	Cu	63	50.558	ug/L	1.065	2	372	388453	0
[	Cu	65	50.519	ug/L	0.916	1	41	173772	1
[	Zn	66	50.553	ug/L	0.432	0	192	110158	2
[	Zn	67	51.808	ug/L	2.157	4	31	18714	3
[	Zn	68	51.174	ug/L	0.736	1	189	79883	0
[	As	75	50.597	ug/L	1.092	2	267	95974	1
[	As-1	75	50.631	ug/L	0.990	1	10608	106402	0
[	Se	82	53.145	ug/L	1.577	2	-2	11056	2
[	Se	78	52.422	ug/L	1.154	2	10783	38919	0
[	Mo	98	49.944	ug/L	0.538	1	8	218348	1
	Y	89		ug/L			428598	396607	0
	Kr	83		ug/L			613	565	2
[>	In	115		ug/L			928277	861831	0
[	Ag	107	47.653	ug/L	0.514	1	14	418138	0
[	Cd	111	50.607	ug/L	0.267	0	65	198113	1
[	Cd	114	51.574	ug/L	0.253	0	31	507815	0
[	Sb	121	50.596	ug/L	0.597	1	40	588979	0
[	Sb	123	50.648	ug/L	0.560	1	30	445234	0
[	Ba	135	50.093	ug/L	0.876	1	13	174409	0
[	Ba	137	49.932	ug/L	0.362	0	15	300103	0
[>	Tb	159		ug/L			1061408	1005856	0
[	Tl	205	46.188	ug/L	0.347	0	43	1501204	0
[	Pb	208	48.691	ug/L	0.403	0	368	1985838	0
[	Bi	209		ug/L			2680757	2568365	0
[	Th	232	45.071	ug/L	0.742	1	49	1835843	1
[	U	238	45.165	ug/L	0.368	0	2	1984061	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB11
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:41:26
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	1715470	0
[	Be	9	-0.000	ug/L	0.001	164	12	9	36
	C	13		ug/L			138826	148571	1
	Cl	37		ug/L			4735446	4931640	2
[>	Sc	45		ug/L			1275890	1187929	1
[	V	51	-0.008	ug/L	0.017	225	9212	8399	4
[	V-1	51	0.002	ug/L	0.001	43	60	106	19
[	Cr	52	-0.038	ug/L	0.061	161	27310	24748	4
[	Cr	53	-0.002	ug/L	0.008	362	159	144	12
[	Mn	55	0.002	ug/L	0.001	94	592	590	5
[	Co	59	0.001	ug/L	0.001	141	80	87	19
[>	Ge	72		ug/L			659198	576156	1
[	Ni	60	0.000	ug/L	0.001	824	16	14	21
[	Ni	62	-0.077	ug/L	0.009	12	275	203	0
[	Cu	63	-0.014	ug/L	0.001	7	372	218	3
[	Cu	65	0.006	ug/L	0.003	52	41	56	17
[	Zn	66	0.086	ug/L	0.004	4	192	351	2
[	Zn	67	0.072	ug/L	0.016	21	31	52	12
[	Zn	68	0.091	ug/L	0.007	7	189	305	3
[	As	75	0.026	ug/L	0.010	39	267	281	7
[	As-1	75	0.265	ug/L	0.054	20	10608	9770	0
[	Se	82	0.047	ug/L	0.038	82	-2	7	112
[	Se	78	0.880	ug/L	0.204	23	10783	9908	0
[	Mo	98	0.010	ug/L	0.003	25	8	50	20
	Y	89		ug/L			428598	383508	1
	Kr	83		ug/L			613	549	3
[>	In	115		ug/L			928277	856183	0
[	Ag	107	0.001	ug/L	0.001	82	14	23	35
[	Cd	111	0.005	ug/L	0.003	55	65	81	13
[	Cd	114	0.001	ug/L	0.000	21	31	38	5
[	Sb	121	0.069	ug/L	0.002	3	40	833	3
[	Sb	123	0.068	ug/L	0.007	10	30	618	10
[	Ba	135	0.004	ug/L	0.003	61	13	27	33
[	Ba	137	0.007	ug/L	0.004	61	15	56	45
[>	Tb	159		ug/L			1061408	986257	1
[	Tl	205	0.006	ug/L	0.003	45	43	216	37
[	Pb	208	0.006	ug/L	0.001	9	368	574	2
[	Bi	209		ug/L			2680757	2569088	0
[	Th	232	0.180	ug/L	0.015	8	49	7218	8
[	U	238	0.003	ug/L	0.001	33	2	132	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:45:34
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1778961	0
[	Be	9	0.002	ug/L	0.000	20	12	21	8
	C	13		ug/L			138826	157073	1
	Cl	37		ug/L			4735446	4939091	3
[>	Sc	45		ug/L			1275890	1202756	0
|	V	51	0.001	ug/L	0.015	1667	9212	8704	3
|	V-1	51	0.006	ug/L	0.000	5	60	199	3
|	Cr	52	0.002	ug/L	0.050	2081	27310	25787	3
|	Cr	53	0.021	ug/L	0.004	20	159	194	4
|	Mn	55	0.123	ug/L	0.004	3	592	3731	3
[	Co	59	0.002	ug/L	0.001	54	80	116	19
[>	Ge	72		ug/L			659198	590589	2
|	Ni	60	0.007	ug/L	0.002	29	16	40	20
|	Ni	62	-0.134	ug/L	0.017	13	275	181	6
|	Cu	63	0.097	ug/L	0.007	6	372	1085	4
|	Cu	65	0.124	ug/L	0.015	11	41	467	12
|	Zn	66	2.247	ug/L	0.020	0	192	5105	2
|	Zn	67	2.096	ug/L	0.072	3	31	790	1
|	Zn	68	2.196	ug/L	0.106	4	189	3619	2
|	As	75	0.028	ug/L	0.021	74	267	292	12
|	As-1	75	0.183	ug/L	0.126	68	10608	9854	0
|	Se	82	0.053	ug/L	0.053	99	-2	8	131
|	Se	78	0.612	ug/L	0.406	66	10783	10003	0
[	Mo	98	0.009	ug/L	0.002	27	8	46	20
	Y	89		ug/L			428598	391807	1
	Kr	83		ug/L			613	572	2
[>	In	115		ug/L			928277	867888	0
|	Ag	107	0.001	ug/L	0.001	65	14	21	23
|	Cd	111	0.005	ug/L	0.003	66	65	80	16
|	Cd	114	0.001	ug/L	0.000	67	31	36	12
|	Sb	121	0.024	ug/L	0.001	4	40	320	3
|	Sb	123	0.023	ug/L	0.002	9	30	235	9
|	Ba	135	0.030	ug/L	0.002	7	13	116	7
[	Ba	137	0.035	ug/L	0.004	11	15	225	10
[>	Tb	159		ug/L			1061408	996739	0
|	Tl	205	0.010	ug/L	0.004	42	43	348	37
|	Pb	208	0.004	ug/L	0.001	20	368	508	6
|	Bi	209		ug/L			2680757	2581779	0
|	Th	232	0.140	ug/L	0.009	6	49	5708	6
[	U	238	0.001	ug/L	0.000	4	2	45	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:49:42
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1782516	1
[	Be	9	23.784	ug/L	0.023	0	12	107767	1
	C	13		ug/L			138826	153913	0
	Cl	37		ug/L			4735446	4834053	3
[>	Sc	45		ug/L			1275890	1208128	2
[	V	51	23.740	ug/L	0.484	2	9212	554669	2
[	V-1	51	23.752	ug/L	0.410	1	60	546449	1
[	Cr	52	24.725	ug/L	0.562	2	27310	475717	2
[	Cr	53	24.769	ug/L	0.891	3	159	51127	1
[	Mn	55	24.454	ug/L	0.680	2	592	633423	2
[	Co	59	23.977	ug/L	0.802	3	80	424583	2
[>	Ge	72		ug/L			659198	579711	1
[	Ni	60	26.609	ug/L	0.290	1	16	91958	1
[	Ni	62	26.554	ug/L	0.212	0	275	13085	0
[	Cu	63	26.887	ug/L	0.397	1	372	204789	0
[	Cu	65	27.135	ug/L	0.530	1	41	92468	1
[	Zn	66	82.651	ug/L	1.058	1	192	178256	0
[	Zn	67	75.614	ug/L	1.377	1	31	27047	1
[	Zn	68	78.211	ug/L	1.432	1	189	120845	1
[	As	75	25.589	ug/L	0.666	2	267	48192	1
[	As-1	75	26.084	ug/L	0.204	0	10608	58823	1
[	Se	82	81.871	ug/L	1.671	2	-2	16872	0
[	Se	78	80.098	ug/L	0.136	0	10783	53902	1
[	Mo	98	0.018	ug/L	0.001	4	8	85	4
	Y	89		ug/L			428598	400901	2
	Kr	83		ug/L			613	577	2
[>	In	115		ug/L			928277	870423	1
[	Ag	107	24.968	ug/L	0.347	1	14	221251	0
[	Cd	111	24.816	ug/L	0.619	2	65	98125	1
[	Cd	114	24.772	ug/L	0.367	1	31	246327	0
[	Sb	121	0.024	ug/L	0.001	6	40	320	4
[	Sb	123	0.023	ug/L	0.003	14	30	235	11
[	Ba	135	25.860	ug/L	0.504	1	13	90936	1
[	Ba	137	25.618	ug/L	0.127	0	15	155515	1
[>	Tb	159		ug/L			1061408	1010591	0
[	Tl	205	23.857	ug/L	0.194	0	43	779102	0
[	Pb	208	25.045	ug/L	0.183	0	368	1026484	0
[	Bi	209		ug/L			2680757	2609161	0
[	Th	232	22.636	ug/L	0.106	0	49	926448	0
[	U	238	22.621	ug/L	0.159	0	2	998443	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:53:49
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1761967	2
[	Be	9	0.026	ug/L	0.001	4	12	129	4
	C	13		ug/L			138826	161435	1
	Cl	37		ug/L			4735446	5061718	1
[>	Sc	45		ug/L			1275890	1303538	1
|	V	51	3.861	ug/L	0.063	1	9212	105236	1
|	V-1	51	3.908	ug/L	0.047	1	60	97079	1
|	Cr	52	1.943	ug/L	0.044	2	27310	66056	1
|	Cr	53	2.113	ug/L	0.099	4	159	4855	3
|	Mn	55	770.235	ug/L	8.060	1	592	21516868	2
[	Co	59	0.211	ug/L	0.004	2	80	4109	0
[>	Ge	72		ug/L			659198	585801	0
|	Ni	60	1.153	ug/L	0.024	2	16	4039	2
|	Ni	62	0.788	ug/L	0.073	9	275	630	5
|	Cu	63	1.363	ug/L	0.044	3	372	10805	2
|	Cu	65	0.819	ug/L	0.030	3	41	2855	3
|	Zn	66	8.062	ug/L	0.147	1	192	17725	1
|	Zn	67	7.776	ug/L	0.166	2	31	2835	1
|	Zn	68	9.166	ug/L	0.252	2	189	14459	2
|	As	75	4.164	ug/L	0.043	1	267	8124	0
|	As-1	75	4.248	ug/L	0.094	2	10608	17572	0
|	Se	82	0.212	ug/L	0.028	13	-2	41	13
|	Se	78	0.707	ug/L	0.203	28	10783	9978	0
[	Mo	98	2.064	ug/L	0.049	2	8	9039	1
	Y	89		ug/L			428598	425901	1
	Kr	83		ug/L			613	578	2
[>	In	115		ug/L			928277	865470	0
|	Ag	107	0.007	ug/L	0.001	9	14	71	8
|	Cd	111	0.323	ug/L	0.014	4	65	1329	4
|	Cd	114	0.315	ug/L	0.007	2	31	3146	2
|	Sb	121	0.038	ug/L	0.001	3	40	481	3
|	Sb	123	0.041	ug/L	0.002	4	30	388	4
|	Ba	135	7.899	ug/L	0.097	1	13	27630	1
[	Ba	137	7.884	ug/L	0.057	0	15	47599	0
[>	Tb	159		ug/L			1061408	1033286	0
|	Tl	205	0.008	ug/L	0.002	27	43	314	24
|	Pb	208	0.198	ug/L	0.004	1	368	8660	1
|	Bi	209		ug/L			2680757	2446758	0
|	Th	232	0.485	ug/L	0.112	23	49	20333	22
[	U	238	0.015	ug/L	0.001	7	2	665	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 19:59:02
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\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1738475	1777006	2
Be	9	0.014	ug/L	0.001	5	12	74	3
C	13		ug/L			138826	159480	1
Cl	37		ug/L			4735446	5327358	2
> Sc	45		ug/L			1275890	1340970	2
V	51	1.617	ug/L	0.044	2	9212	50955	0
V-1	51	1.675	ug/L	0.037	2	60	42819	0
Cr	52	0.271	ug/L	0.036	13	27310	34173	1
Cr	53	0.478	ug/L	0.003	0	159	1259	2
Mn	55	1592.780	ug/L	24.860	1	592	45759867	0
Co	59	0.113	ug/L	0.005	4	80	2304	2
> Ge	72		ug/L			659198	584986	0
Ni	60	0.900	ug/L	0.019	2	16	3153	1
Ni	62	0.474	ug/L	0.023	4	275	475	2
Cu	63	1.233	ug/L	0.023	1	372	9795	1
Cu	65	0.929	ug/L	0.028	2	41	3231	2
Zn	66	2.646	ug/L	0.116	4	192	5922	3
Zn	67	3.199	ug/L	0.189	5	31	1181	5
Zn	68	4.320	ug/L	0.037	0	189	6894	1
As	75	5.414	ug/L	0.039	0	267	10477	0
As-1	75	5.426	ug/L	0.016	0	10608	19803	0
Se	82	0.250	ug/L	0.030	12	-2	49	12
Se	78	0.543	ug/L	0.068	12	10783	9873	0
Mo	98	0.181	ug/L	0.008	4	8	799	3
Y	89		ug/L			428598	402310	0
Kr	83		ug/L			613	574	2
> In	115		ug/L			928277	865239	0
Ag	107	0.003	ug/L	0.001	23	14	41	15
Cd	111	0.015	ug/L	0.005	31	65	118	15
Cd	114	0.003	ug/L	0.001	29	31	59	15
Sb	121	0.017	ug/L	0.001	4	40	231	3
Sb	123	0.018	ug/L	0.002	9	30	189	9
Ba	135	14.829	ug/L	0.127	0	13	51846	0
Ba	137	14.824	ug/L	0.234	1	15	89455	1
> Tb	159		ug/L			1061408	1045497	0
Tl	205	0.004	ug/L	0.001	23	43	187	17
Pb	208	0.222	ug/L	0.002	0	368	9780	0
Bi	209		ug/L			2680757	2431581	0
Th	232	0.080	ug/L	0.003	4	49	3432	3
U	238	0.002	ug/L	0.000	1	2	91	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:03:09
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	1755543	2
[	Be	9	0.011	ug/L	0.001	4	12	63	2
	C	13		ug/L			138826	158871	1
	Cl	37		ug/L			4735446	5228464	2
[>	Sc	45		ug/L			1275890	1331910	2
[	V	51	1.821	ug/L	0.030	1	9212	55781	0
[	V-1	51	1.890	ug/L	0.035	1	60	47985	0
[	Cr	52	0.385	ug/L	0.012	3	27310	36240	2
[	Cr	53	0.633	ug/L	0.021	3	159	1602	2
[	Mn	55	1821.244	ug/L	29.697	1	592	51969620	0
[	Co	59	0.159	ug/L	0.003	1	80	3195	1
[>	Ge	72		ug/L			659198	581272	1
[	Ni	60	0.645	ug/L	0.019	2	16	2248	3
[	Ni	62	0.305	ug/L	0.061	19	275	390	6
[	Cu	63	0.565	ug/L	0.010	1	372	4636	0
[	Cu	65	0.258	ug/L	0.002	0	41	917	1
[	Zn	66	1.581	ug/L	0.070	4	192	3586	5
[	Zn	67	2.279	ug/L	0.077	3	31	844	4
[	Zn	68	3.146	ug/L	0.061	1	189	5034	2
[	As	75	4.290	ug/L	0.047	1	267	8299	0
[	As-1	75	4.421	ug/L	0.097	2	10608	17764	0
[	Se	82	0.224	ug/L	0.050	22	-2	43	24
[	Se	78	0.852	ug/L	0.135	15	10783	9981	0
[	Mo	98	0.564	ug/L	0.016	2	8	2454	1
	Y	89		ug/L			428598	409103	1
	Kr	83		ug/L			613	553	1
[>	In	115		ug/L			928277	865551	0
[	Ag	107	0.003	ug/L	0.000	7	14	41	4
[	Cd	111	0.052	ug/L	0.003	5	65	267	4
[	Cd	114	0.039	ug/L	0.001	1	31	412	1
[	Sb	121	0.023	ug/L	0.003	14	40	300	12
[	Sb	123	0.020	ug/L	0.000	1	30	207	1
[	Ba	135	14.716	ug/L	0.209	1	13	51471	1
[	Ba	137	14.889	ug/L	0.098	0	15	89883	0
[>	Tb	159		ug/L			1061408	1041669	0
[	Tl	205	0.003	ug/L	0.001	29	43	151	21
[	Pb	208	0.039	ug/L	0.001	2	368	2011	2
[	Bi	209		ug/L			2680757	2451462	0
[	Th	232	0.042	ug/L	0.005	11	49	1799	11
[	U	238	0.002	ug/L	0.000	13	2	77	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:07:16
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	1792706	2
	Be	9	0.017	ug/L	0.004	20	12	90	17
	C	13		ug/L			138826	160713	2
	Cl	37		ug/L			4735446	5857489	1
>	Sc	45		ug/L			1275890	1348597	0
	V	51	0.635	ug/L	0.014	2	9212	26032	1
	V-1	51	0.726	ug/L	0.012	1	60	18717	1
	Cr	52	0.091	ug/L	0.028	30	27310	30707	2
	Cr	53	0.418	ug/L	0.022	5	159	1130	4
	Mn	55	4377.302	ug/L	44.656	1	592	126499251	0
	Co	59	1.018	ug/L	0.024	2	80	20209	2
>	Ge	72		ug/L			659198	590593	1
	Ni	60	1.158	ug/L	0.022	1	16	4091	1
	Ni	62	0.714	ug/L	0.007	0	275	598	1
	Cu	63	2.723	ug/L	0.038	1	372	21425	0
	Cu	65	2.584	ug/L	0.029	1	41	9006	1
	Zn	66	19.306	ug/L	0.308	1	192	42550	0
	Zn	67	18.591	ug/L	0.478	2	31	6795	1
	Zn	68	20.405	ug/L	0.169	0	189	32248	1
	As	75	45.303	ug/L	0.249	0	267	86756	1
	As-1	75	44.913	ug/L	0.226	0	10608	96331	1
	Se	82	0.165	ug/L	0.093	56	-2	31	60
	Se	78	0.732	ug/L	0.207	28	10783	10073	0
	Mo	98	6.027	ug/L	0.120	1	8	26592	1
	Y	89		ug/L			428598	399344	1
	Kr	83		ug/L			613	569	6
>	In	115		ug/L			928277	873005	0
	Ag	107	0.003	ug/L	0.001	15	14	44	11
	Cd	111	0.042	ug/L	0.003	8	65	228	5
	Cd	114	0.033	ug/L	0.001	1	31	361	1
	Sb	121	0.033	ug/L	0.003	8	40	423	7
	Sb	123	0.033	ug/L	0.005	14	30	318	13
	Ba	135	11.387	ug/L	0.054	0	13	40172	0
	Ba	137	11.299	ug/L	0.089	0	15	68804	0
>	Tb	159		ug/L			1061408	1032685	0
	Tl	205	0.007	ug/L	0.001	16	43	275	14
	Pb	208	0.595	ug/L	0.002	0	368	25278	0
	Bi	209		ug/L			2680757	2450574	0
	Th	232	0.024	ug/L	0.005	19	49	1060	19
	U	238	0.003	ug/L	0.000	9	2	126	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:11:24
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	1825291	0
	Be	9	0.004	ug/L	0.001	23	12	31	14
	C	13		ug/L			138826	160626	1
	Cl	37		ug/L			4735446	5707110	2
>	Sc	45		ug/L			1275890	1382332	0
	V	51	0.576	ug/L	0.022	3	9212	25144	2
	V-1	51	0.674	ug/L	0.014	2	60	17821	1
	Cr	52	0.025	ug/L	0.028	112	27310	30108	2
	Cr	53	0.377	ug/L	0.018	4	159	1060	3
	Mn	55	4405.787	ug/L	106.173	2	592	130502987	2
	Co	59	0.970	ug/L	0.010	0	80	19749	0
>	Ge	72		ug/L			659198	590223	0
	Ni	60	1.177	ug/L	0.031	2	16	4156	2
	Ni	62	0.736	ug/L	0.078	10	275	609	6
	Cu	63	1.168	ug/L	0.010	0	372	9380	1
	Cu	65	0.951	ug/L	0.037	3	41	3334	3
	Zn	66	19.551	ug/L	0.320	1	192	43066	1
	Zn	67	18.240	ug/L	0.377	2	31	6663	1
	Zn	68	20.576	ug/L	0.188	0	189	32494	0
	As	75	45.013	ug/L	0.714	1	267	86140	0
	As-1	75	44.645	ug/L	0.740	1	10608	95745	0
	Se	82	0.047	ug/L	0.068	144	-2	7	196
	Se	78	0.734	ug/L	0.160	21	10783	10068	0
	Mo	98	6.075	ug/L	0.075	1	8	26789	1
	Y	89		ug/L			428598	402423	0
	Kr	83		ug/L			613	605	1
>	In	115		ug/L			928277	888725	0
	Ag	107	0.001	ug/L	0.000	39	14	23	15
	Cd	111	0.038	ug/L	0.008	20	65	216	13
	Cd	114	0.034	ug/L	0.001	3	31	377	3
	Sb	121	0.029	ug/L	0.001	2	40	390	2
	Sb	123	0.031	ug/L	0.002	7	30	313	7
	Ba	135	11.164	ug/L	0.141	1	13	40096	0
	Ba	137	11.186	ug/L	0.199	1	15	69335	1
>	Tb	159		ug/L			1061408	1056719	0
	Tl	205	0.007	ug/L	0.001	16	43	281	14
	Pb	208	0.988	ug/L	0.006	0	368	42705	0
	Bi	209		ug/L			2680757	2465835	0
	Th	232	0.023	ug/L	0.003	14	49	1014	13
	U	238	0.004	ug/L	0.000	5	2	169	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS65 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:15:31
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	1816424	1
[	**Be**	**9**	**0.008**	ug/L	0.002	19	12	51	15
	C	**13**		ug/L			138826	160246	1
	Cl	**37**		ug/L			4735446	5272972	0
[>	**Sc**	**45**		ug/L			1275890	1380477	0
[	**V**	**51**	**0.492**	ug/L	0.007	1	9212	22900	0
[	**V-1**	**51**	**0.567**	ug/L	0.016	2	60	14982	2
[	**Cr**	**52**	**0.106**	ug/L	0.025	23	27310	31748	2
[	**Cr**	**53**	**0.375**	ug/L	0.013	3	159	1055	2
[	**Mn**	**55**	**1119.701**	ug/L	17.122	1	592	33123413	1
[	**Co**	**59**	**0.087**	ug/L	0.002	1	80	1840	1
[>	**Ge**	**72**		ug/L			659198	598889	0
[	**Ni**	**60**	**0.697**	ug/L	0.010	1	16	2501	2
[	**Ni**	**62**	**0.299**	ug/L	0.046	15	275	399	5
[	**Cu**	**63**	**0.427**	ug/L	0.007	1	372	3691	0
[	**Cu**	**65**	**0.235**	ug/L	0.008	3	41	864	2
[	**Zn**	**66**	**1.831**	ug/L	0.067	3	192	4251	4
[	**Zn**	**67**	**2.472**	ug/L	0.119	4	31	940	4
[	**Zn**	**68**	**3.756**	ug/L	0.169	4	189	6159	4
[	**As**	**75**	**3.302**	ug/L	0.024	0	267	6638	1
[	**As-1**	**75**	**3.338**	ug/L	0.048	1	10608	16181	0
[	**Se**	**82**	**0.097**	ug/L	0.026	26	-2	18	31
[	**Se**	**78**	**0.386**	ug/L	0.145	37	10783	10017	0
[	**Mo**	**98**	**0.281**	ug/L	0.018	6	8	1262	6
	Y	**89**		ug/L			428598	400815	1
	Kr	**83**		ug/L			613	582	2
[>	**In**	**115**		ug/L			928277	896478	1
[	**Ag**	**107**	**0.002**	ug/L	0.000	9	14	36	4
[	**Cd**	**111**	**0.021**	ug/L	0.004	21	65	146	10
[	**Cd**	**114**	**0.013**	ug/L	0.001	7	31	166	5
[	**Sb**	**121**	**0.008**	ug/L	0.001	8	40	130	6
[	**Sb**	**123**	**0.008**	ug/L	0.001	16	30	106	13
[	**Ba**	**135**	**14.447**	ug/L	0.317	2	13	52324	1
[	**Ba**	**137**	**14.434**	ug/L	0.347	2	15	90229	1
[>	**Tb**	**159**		ug/L			1061408	1062927	0
[	**Tl**	**205**	**0.005**	ug/L	0.000	6	43	216	5
[	**Pb**	**208**	**0.049**	ug/L	0.001	1	368	2463	0
[	**Bi**	**209**		ug/L			2680757	2544031	0
[	**Th**	**232**	**0.023**	ug/L	0.004	16	49	1036	15
[	**U**	**238**	**0.002**	ug/L	0.000	20	2	100	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV12
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:19:40
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1761111	1
[	Be	9	49.938	ug/L	0.043	0	12	223539	1
	C	13		ug/L			138826	152581	3
	Cl	37		ug/L			4735446	5036764	2
[>	Sc	45		ug/L			1275890	1252704	0
[	V	51	45.660	ug/L	0.584	1	9212	1097990	0
[	V-1	51	45.818	ug/L	0.597	1	60	1093221	1
[	Cr	52	47.229	ug/L	0.863	1	27310	917959	1
[	Cr	53	47.791	ug/L	0.084	0	159	102204	0
[	Mn	55	45.582	ug/L	1.516	3	592	1224068	2
[	Co	59	47.523	ug/L	1.137	2	80	872992	2
[>	Ge	72		ug/L			659198	596842	2
[	Ni	60	51.136	ug/L	1.009	1	16	181872	1
[	Ni	62	49.766	ug/L	0.934	1	275	25024	1
[	Cu	63	50.426	ug/L	1.533	3	372	394997	1
[	Cu	65	50.923	ug/L	1.610	3	41	178537	0
[	Zn	66	48.997	ug/L	1.102	2	192	108834	0
[	Zn	67	51.387	ug/L	2.065	4	31	18921	1
[	Zn	68	50.205	ug/L	1.664	3	189	79891	1
[	As	75	50.340	ug/L	1.189	2	267	97350	0
[	As-1	75	50.398	ug/L	1.298	2	10608	108019	0
[	Se	82	52.437	ug/L	1.334	2	-2	11121	0
[	Se	78	51.808	ug/L	1.628	3	10783	39326	0
[	Mo	98	50.078	ug/L	0.974	1	8	223193	0
	Y	89		ug/L			428598	399277	0
	Kr	83		ug/L			613	566	2
[>	In	115		ug/L			928277	898581	2
[	Ag	107	48.297	ug/L	2.154	4	14	441671	3
[	Cd	111	50.389	ug/L	0.691	1	65	205633	1
[	Cd	114	51.049	ug/L	0.455	0	31	524013	1
[	Sb	121	49.848	ug/L	1.230	2	40	604849	0
[	Sb	123	49.609	ug/L	0.666	1	30	454640	0
[	Ba	135	49.854	ug/L	0.589	1	13	180976	1
[	Ba	137	49.538	ug/L	1.137	2	15	310355	1
[>	Tb	159		ug/L			1061408	1041212	2
[	Tl	205	45.315	ug/L	1.029	2	43	1524190	1
[	Pb	208	48.089	ug/L	0.857	1	368	2029850	0
[	Bi	209		ug/L			2680757	2585314	0
[	Th	232	44.489	ug/L	0.764	1	49	1875501	0
[	U	238	49.992	ug/L	5.678	11	2	2272297	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB12
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:26:33
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1724034	2
[	**Be**	**9**	**-0.000**	ug/L	0.001	594	12	11	54
	C	**13**		ug/L			138826	149147	1
	Cl	**37**		ug/L			4735446	4808971	0
[>	**Sc**	**45**		ug/L			1275890	1174680	0
[	**V**	**51**	**-0.010**	ug/L	0.010	108	9212	8266	1
[	**V-1**	**51**	**0.002**	ug/L	0.001	52	60	96	20
[	**Cr**	**52**	**-0.045**	ug/L	0.039	86	27310	24337	1
[	**Cr**	**53**	**-0.005**	ug/L	0.006	139	159	137	8
[	**Mn**	**55**	**0.014**	ug/L	0.004	25	592	909	9
[	**Co**	**59**	**0.001**	ug/L	0.001	95	80	85	12
[>	**Ge**	**72**		ug/L			659198	565104	0
[	**Ni**	**60**	**0.002**	ug/L	0.001	45	16	21	16
[	**Ni**	**62**	**-0.194**	ug/L	0.012	6	275	144	4
[	**Cu**	**63**	**-0.018**	ug/L	0.003	15	372	187	10
[	**Cu**	**65**	**0.008**	ug/L	0.001	10	41	61	4
[	**Zn**	**66**	**0.093**	ug/L	0.009	9	192	360	5
[	**Zn**	**67**	**0.082**	ug/L	0.015	18	31	55	10
[	**Zn**	**68**	**0.096**	ug/L	0.005	5	189	307	3
[	**As**	**75**	**0.039**	ug/L	0.005	13	267	299	2
[	**As-1**	**75**	**0.333**	ug/L	0.040	11	10608	9710	0
[	**Se**	**82**	**0.050**	ug/L	0.022	44	-2	7	59
[	**Se**	**78**	**1.108**	ug/L	0.112	10	10783	9842	0
[	**Mo**	**98**	**0.009**	ug/L	0.002	26	8	44	22
	Y	**89**		ug/L			428598	381565	2
	Kr	**83**		ug/L			613	563	1
[>	**In**	**115**		ug/L			928277	851097	1
[	**Ag**	**107**	**0.003**	ug/L	0.003	119	14	36	74
[	**Cd**	**111**	**0.005**	ug/L	0.004	78	65	79	17
[	**Cd**	**114**	**0.001**	ug/L	0.004	268	31	42	81
[	**Sb**	**121**	**0.059**	ug/L	0.009	14	40	713	14
[	**Sb**	**123**	**0.062**	ug/L	0.005	8	30	566	8
[	**Ba**	**135**	**0.005**	ug/L	0.003	63	13	28	34
[	**Ba**	**137**	**0.005**	ug/L	0.002	34	15	45	22
[>	**Tb**	**159**		ug/L			1061408	975867	0
[	**Tl**	**205**	**0.006**	ug/L	0.002	41	43	222	33
[	**Pb**	**208**	**0.006**	ug/L	0.002	34	368	556	13
[	**Bi**	**209**		ug/L			2680757	2558454	0
[	**Th**	**232**	**0.136**	ug/L	0.012	9	49	5403	8
[	**U**	**238**	**0.002**	ug/L	0.001	37	2	105	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:30:42
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	1767092	0
	Be	9	0.000	ug/L	0.001	1809	12	12	20
	C	13		ug/L			138826	154236	2
	Cl	37		ug/L			4735446	4774240	1
>	Sc	45		ug/L			1275890	1229873	0
	V	51	-0.011	ug/L	0.006	51	9212	8622	1
	V-1	51	0.001	ug/L	0.000	34	60	81	10
	Cr	52	-0.037	ug/L	0.017	46	27310	25634	1
	Cr	53	0.006	ug/L	0.005	97	159	165	7
	Mn	55	0.017	ug/L	0.000	1	592	1021	1
	Co	59	0.001	ug/L	0.001	49	80	101	11
>	Ge	72		ug/L			659198	577547	1
	Ni	60	0.005	ug/L	0.001	22	16	31	13
	Ni	62	-0.197	ug/L	0.038	19	275	146	11
	Cu	63	-0.009	ug/L	0.003	31	372	261	8
	Cu	65	0.016	ug/L	0.004	27	41	91	16
	Zn	66	0.313	ug/L	0.011	3	192	839	2
	Zn	67	0.295	ug/L	0.034	11	31	132	9
	Zn	68	0.325	ug/L	0.015	4	189	665	3
	As	75	0.026	ug/L	0.004	14	267	281	2
	As-1	75	0.214	ug/L	0.049	22	10608	9697	0
	Se	82	0.027	ug/L	0.070	256	-2	3	472
	Se	78	0.708	ug/L	0.169	23	10783	9838	0
	Mo	98	0.002	ug/L	0.001	68	8	14	34
	Y	89		ug/L			428598	395529	1
	Kr	83		ug/L			613	565	5
>	In	115		ug/L			928277	881071	1
	Ag	107	0.001	ug/L	0.000	70	14	19	21
	Cd	111	0.001	ug/L	0.000	30	65	68	3
	Cd	114	-0.000	ug/L	0.001	383	31	28	22
	Sb	121	0.016	ug/L	0.003	16	40	227	13
	Sb	123	0.015	ug/L	0.002	12	30	168	10
	Ba	135	0.004	ug/L	0.001	37	13	26	19
	Ba	137	0.007	ug/L	0.001	15	15	56	10
>	Tb	159		ug/L			1061408	1007124	0
	Tl	205	0.003	ug/L	0.001	37	43	127	24
	Pb	208	0.002	ug/L	0.000	19	368	415	2
	Bi	209		ug/L			2680757	2602048	0
	Th	232	0.065	ug/L	0.003	4	49	2700	5
	U	238	0.001	ug/L	0.000	28	2	28	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:34:49
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1793661	1
	Be	**9**	**23.683**	ug/L	0.502	2	12	107970	2
	C	**13**		ug/L			138826	151617	3
	Cl	**37**		ug/L			4735446	4959651	1
>	**Sc**	**45**		ug/L			1275890	1236808	1
	V	**51**	**22.532**	ug/L	0.273	1	9212	539462	1
	V-1	**51**	**22.540**	ug/L	0.097	0	60	531006	1
	Cr	**52**	**23.960**	ug/L	0.836	3	27310	472782	2
	Cr	**53**	**23.986**	ug/L	0.292	1	159	50720	1
	Mn	**55**	**22.827**	ug/L	0.485	2	592	605438	0
	Co	**59**	**23.278**	ug/L	0.157	0	80	422208	1
>	**Ge**	**72**		ug/L			659198	583705	1
	Ni	**60**	**25.944**	ug/L	0.638	2	16	90270	2
	Ni	**62**	**25.313**	ug/L	0.381	1	275	12570	0
	Cu	**63**	**25.774**	ug/L	0.186	0	372	197691	1
	Cu	**65**	**25.969**	ug/L	0.144	0	41	89110	1
	Zn	**66**	**80.364**	ug/L	0.861	1	192	174537	1
	Zn	**67**	**76.354**	ug/L	2.112	2	31	27501	2
	Zn	**68**	**80.339**	ug/L	1.474	1	189	124976	0
	As	**75**	**25.127**	ug/L	0.250	0	267	47662	1
	As-1	**75**	**25.398**	ug/L	0.307	1	10608	57917	0
	Se	**82**	**84.619**	ug/L	0.929	1	-2	17560	0
	Se	**78**	**81.866**	ug/L	2.131	2	10783	55253	1
	Mo	**98**	**23.623**	ug/L	0.231	0	8	103003	0
	Y	**89**		ug/L			428598	390333	2
	Kr	**83**		ug/L			613	548	9
>	**In**	**115**		ug/L			928277	883269	1
	Ag	**107**	**24.107**	ug/L	1.077	4	14	216723	3
	Cd	**111**	**24.703**	ug/L	0.192	0	65	99143	1
	Cd	**114**	**24.748**	ug/L	0.060	0	31	249752	1
	Sb	**121**	**24.170**	ug/L	0.214	0	40	288375	0
	Sb	**123**	**24.296**	ug/L	0.291	1	30	218900	0
	Ba	**135**	**24.743**	ug/L	0.246	0	13	88300	0
	Ba	**137**	**25.067**	ug/L	0.383	1	15	154403	0
>	**Tb**	**159**		ug/L			1061408	1013772	0
	Tl	**205**	**23.556**	ug/L	0.424	1	43	771625	0
	Pb	**208**	**24.544**	ug/L	0.348	1	368	1009046	0
	Bi	**209**		ug/L			2680757	2632272	0
	Th	**232**	**21.912**	ug/L	0.249	1	49	899576	0
	U	**238**	**22.066**	ug/L	0.274	1	2	976957	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:38:57
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1804047	0
[	**Be**	**9**	**0.045**	ug/L	0.002	3	12	218	3
	C	**13**		ug/L			138826	156956	2
	Cl	**37**		ug/L			4735446	4895531	2
[>	**Sc**	**45**		ug/L			1275890	1285508	0
[	**V**	**51**	**2.076**	ug/L	0.013	0	9212	60097	0
[	**V-1**	**51**	**2.105**	ug/L	0.021	1	60	51608	1
[	**Cr**	**52**	**1.471**	ug/L	0.041	2	27310	56005	0
[	**Cr**	**53**	**1.576**	ug/L	0.020	1	159	3613	2
[	**Mn**	**55**	**37.740**	ug/L	0.724	1	592	1040118	1
[	**Co**	**59**	**0.462**	ug/L	0.011	2	80	8792	2
[>	**Ge**	**72**		ug/L			659198	593109	2
[	**Ni**	**60**	**1.546**	ug/L	0.055	3	16	5477	1
[	**Ni**	**62**	**1.534**	ug/L	0.113	7	275	1006	3
[	**Cu**	**63**	**1.731**	ug/L	0.024	1	372	13799	1
[	**Cu**	**65**	**1.743**	ug/L	0.049	2	41	6110	1
[	**Zn**	**66**	**24.877**	ug/L	0.523	2	192	55003	0
[	**Zn**	**67**	**23.764**	ug/L	0.247	1	31	8716	2
[	**Zn**	**68**	**24.928**	ug/L	0.732	2	189	39512	1
[	**As**	**75**	**1.943**	ug/L	0.008	0	267	3967	2
[	**As-1**	**75**	**2.009**	ug/L	0.105	5	10608	13442	0
[	**Se**	**82**	**0.070**	ug/L	0.034	48	-2	12	59
[	**Se**	**78**	**0.403**	ug/L	0.337	83	10783	9928	0
[	**Mo**	**98**	**0.049**	ug/L	0.004	8	8	224	10
	Y	**89**		ug/L			428598	417442	1
	Kr	**83**		ug/L			613	574	2
[>	**In**	**115**		ug/L			928277	900215	1
[	**Ag**	**107**	**0.026**	ug/L	0.002	7	14	252	6
[	**Cd**	**111**	**0.476**	ug/L	0.010	1	65	2011	3
[	**Cd**	**114**	**0.482**	ug/L	0.013	2	31	4989	1
[	**Sb**	**121**	**0.104**	ug/L	0.004	4	40	1300	4
[	**Sb**	**123**	**0.102**	ug/L	0.004	4	30	964	5
[	**Ba**	**135**	**10.557**	ug/L	0.158	1	13	38404	0
[	**Ba**	**137**	**10.378**	ug/L	0.164	1	15	65159	0
[>	**Tb**	**159**		ug/L			1061408	1040563	1
[	**Tl**	**205**	**0.034**	ug/L	0.002	4	43	1185	4
[	**Pb**	**208**	**20.750**	ug/L	0.199	0	368	875616	0
[	**Bi**	**209**		ug/L			2680757	2651180	0
[	**Th**	**232**	**0.635**	ug/L	0.034	5	49	26800	3
[	**U**	**238**	**0.070**	ug/L	0.001	0	2	3189	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:43:04
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	1860748	0
[	Be	9	0.233	ug/L	0.006	2	12	1117	2
	C	13		ug/L			138826	166185	1
	Cl	37		ug/L			4735446	4747191	1
[>	Sc	45		ug/L			1275890	1299876	0
[	V	51	10.273	ug/L	0.298	2	9212	263619	2
[	V-1	51	10.344	ug/L	0.311	3	60	256134	2
[	Cr	52	7.567	ug/L	0.151	1	27310	175993	2
[	Cr	53	7.822	ug/L	0.114	1	159	17493	1
[	Mn	55	204.180	ug/L	2.566	1	592	5688010	1
[	Co	59	2.302	ug/L	0.006	0	80	43953	0
[>	Ge	72		ug/L			659198	605918	1
[	Ni	60	7.334	ug/L	0.170	2	16	26496	0
[	Ni	62	7.652	ug/L	0.054	0	275	4121	0
[	Cu	63	8.384	ug/L	0.237	2	372	66973	1
[	Cu	65	8.444	ug/L	0.497	5	41	30089	4
[	Zn	66	114.044	ug/L	1.826	1	192	256996	0
[	Zn	67	108.988	ug/L	3.116	2	31	40728	1
[	Zn	68	112.824	ug/L	0.852	0	189	182128	0
[	As	75	9.222	ug/L	0.092	1	267	18312	0
[	As-1	75	9.111	ug/L	0.192	2	10608	27817	0
[	Se	82	0.134	ug/L	0.066	49	-2	26	53
[	Se	78	0.206	ug/L	0.370	179	10783	10029	0
[	Mo	98	0.191	ug/L	0.009	4	8	872	3
	Y	89		ug/L			428598	478104	1
	Kr	83		ug/L			613	620	3
[>	In	115		ug/L			928277	917932	1
[	Ag	107	0.116	ug/L	0.006	5	14	1099	4
[	Cd	111	2.314	ug/L	0.066	2	65	9706	1
[	Cd	114	2.284	ug/L	0.013	0	31	23985	1
[	Sb	121	0.369	ug/L	0.008	2	40	4615	0
[	Sb	123	0.364	ug/L	0.010	2	30	3440	1
[	Ba	135	50.404	ug/L	0.485	0	13	186918	0
[	Ba	137	51.219	ug/L	0.723	1	15	327840	0
[>	Tb	159		ug/L			1061408	1057268	2
[	Tl	205	0.150	ug/L	0.005	3	43	5152	0
[	Pb	208	110.283	ug/L	2.333	2	368	4726143	0
[	Bi	209		ug/L			2680757	2677415	1
[	Th	232	1.971	ug/L	0.051	2	49	84404	0
[	U	238	0.319	ug/L	0.003	0	2	14731	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:47:11
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	1841024	0
	Be	9	0.236	ug/L	0.004	1	12	1118	1
	C	13		ug/L			138826	177434	1
	Cl	37		ug/L			4735446	4717356	3
>	Sc	45		ug/L			1275890	1307115	1
	V	51	10.400	ug/L	0.129	1	9212	268242	0
	V-1	51	10.442	ug/L	0.100	0	60	260004	0
	Cr	52	7.277	ug/L	0.104	1	27310	171260	1
	Cr	53	7.430	ug/L	0.055	0	159	16718	1
	Mn	55	205.588	ug/L	4.688	2	592	5758010	1
	Co	59	2.238	ug/L	0.031	1	80	42976	0
>	Ge	72		ug/L			659198	608689	2
	Ni	60	7.000	ug/L	0.114	1	16	25411	2
	Ni	62	7.375	ug/L	0.285	3	275	3997	1
	Cu	63	8.194	ug/L	0.272	3	372	65739	1
	Cu	65	8.235	ug/L	0.130	1	41	29487	1
	Zn	66	117.355	ug/L	3.790	3	192	265584	1
	Zn	67	113.194	ug/L	3.950	3	31	42493	3
	Zn	68	115.283	ug/L	2.642	2	189	186898	0
	As	75	9.311	ug/L	0.301	3	267	18564	2
	As-1	75	9.103	ug/L	0.374	4	10608	27923	1
	Se	82	0.148	ug/L	0.071	47	-2	29	52
	Se	78	-0.107	ug/L	0.320	299	10783	9892	0
	Mo	98	0.183	ug/L	0.001	0	8	841	1
	Y	89		ug/L			428598	477169	0
	Kr	83		ug/L			613	620	2
>	In	115		ug/L			928277	920801	0
	Ag	107	0.115	ug/L	0.004	3	14	1096	3
	Cd	111	2.501	ug/L	0.066	2	65	10520	2
	Cd	114	2.485	ug/L	0.026	1	31	26176	1
	Sb	121	0.337	ug/L	0.004	1	40	4229	1
	Sb	123	0.338	ug/L	0.002	0	30	3202	0
	Ba	135	51.268	ug/L	0.397	0	13	190732	0
	Ba	137	50.728	ug/L	0.438	0	15	325762	0
>	Tb	159		ug/L			1061408	1058455	0
	Tl	205	0.149	ug/L	0.002	1	43	5143	0
	Pb	208	109.463	ug/L	0.670	0	368	4697446	0
	Bi	209		ug/L			2680757	2665317	0
	Th	232	3.081	ug/L	0.016	0	49	132100	1
	U	238	0.380	ug/L	0.001	0	2	17569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:52:23
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	1837147	1
[	Be	9	24.893	ug/L	0.385	1	12	116230	0
	C	13		ug/L			138826	165860	3
	Cl	37		ug/L			4735446	4670321	3
[>	Sc	45		ug/L			1275890	1293793	2
|	V	51	33.308	ug/L	0.623	1	9212	829587	0
|	V-1	51	33.318	ug/L	0.665	1	60	820877	0
|	Cr	52	30.991	ug/L	0.465	1	27310	631540	0
|	Cr	53	31.033	ug/L	0.660	2	159	68578	0
|	Mn	55	230.461	ug/L	1.805	0	592	6389489	1
[	Co	59	25.228	ug/L	0.529	2	80	478492	0
[>	Ge	72		ug/L			659198	603943	1
|	Ni	60	32.722	ug/L	0.915	2	16	117810	3
|	Ni	62	32.583	ug/L	1.177	3	275	16667	2
|	Cu	63	33.287	ug/L	0.384	1	372	264061	1
|	Cu	65	33.767	ug/L	0.099	0	41	119876	0
|	Zn	66	192.605	ug/L	1.380	0	192	432578	1
|	Zn	67	185.433	ug/L	1.745	0	31	69072	1
|	Zn	68	192.409	ug/L	2.728	1	189	309473	1
|	As	75	34.042	ug/L	0.593	1	267	66730	2
|	As-1	75	34.435	ug/L	0.297	0	10608	77794	1
|	Se	82	82.735	ug/L	1.400	1	-2	17764	1
|	Se	78	80.949	ug/L	1.884	2	10783	56639	0
[	Mo	98	22.727	ug/L	0.162	0	8	102531	0
	Y	89		ug/L			428598	472463	1
	Kr	83		ug/L			613	625	3
[>	In	115		ug/L			928277	908940	1
|	Ag	107	22.131	ug/L	0.439	1	14	204789	1
|	Cd	111	27.163	ug/L	0.664	2	65	112158	1
|	Cd	114	26.901	ug/L	0.477	1	31	279343	1
|	Sb	121	4.989	ug/L	0.084	1	40	61278	0
|	Sb	123	4.966	ug/L	0.082	1	30	46067	0
|	Ba	135	76.518	ug/L	1.701	2	13	280949	1
[	Ba	137	77.176	ug/L	0.310	0	15	489199	0
[>	Tb	159		ug/L			1061408	1052333	0
|	Tl	205	22.754	ug/L	0.351	1	43	773811	1
|	Pb	208	130.134	ug/L	0.425	0	368	5552386	0
|	Bi	209		ug/L			2680757	2669895	0
|	Th	232	19.374	ug/L	0.231	1	49	825678	0
[	U	238	22.499	ug/L	0.101	0	2	1034087	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 20:56:30
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	1849685	1
[	Be	9	25.223	ug/L	0.389	1	12	118579	0
	C	13		ug/L			138826	173747	0
	Cl	37		ug/L			4735446	4842969	2
[>	Sc	45		ug/L			1275890	1296003	1
|	V	51	33.342	ug/L	0.753	2	9212	831908	1
|	V-1	51	33.320	ug/L	0.533	1	60	822444	1
|	Cr	52	32.048	ug/L	0.809	2	27310	653221	0
|	Cr	53	31.971	ug/L	0.294	0	159	70787	1
|	Mn	55	228.144	ug/L	4.439	1	592	6336155	2
[	Co	59	25.520	ug/L	0.359	1	80	485066	2
[>	Ge	72		ug/L			659198	591556	1
|	Ni	60	33.887	ug/L	0.608	1	16	119503	2
|	Ni	62	33.898	ug/L	0.412	1	275	16975	0
|	Cu	63	34.583	ug/L	0.801	2	372	268697	2
|	Cu	65	34.713	ug/L	1.208	3	41	120676	2
|	Zn	66	202.791	ug/L	5.744	2	192	445959	1
|	Zn	67	188.150	ug/L	7.382	3	31	68613	2
|	Zn	68	196.058	ug/L	8.539	4	189	308741	2
|	As	75	35.368	ug/L	1.103	3	267	67873	2
|	As-1	75	35.987	ug/L	1.163	3	10608	79183	1
|	Se	82	87.257	ug/L	2.005	2	-2	18348	0
|	Se	78	86.029	ug/L	2.211	2	10783	58346	0
[	Mo	98	24.151	ug/L	0.083	0	8	106727	1
	Y	89		ug/L			428598	469869	1
	Kr	83		ug/L			613	601	6
[>	In	115		ug/L			928277	901164	0
|	Ag	107	24.553	ug/L	0.235	0	14	225277	0
|	Cd	111	28.261	ug/L	0.232	0	65	115712	1
|	Cd	114	28.146	ug/L	0.433	1	31	289778	1
|	Sb	121	24.108	ug/L	0.274	1	40	293468	0
|	Sb	123	24.366	ug/L	0.293	1	30	223995	0
|	Ba	135	76.143	ug/L	0.063	0	13	277231	0
[	Ba	137	75.068	ug/L	0.818	1	15	471748	0
[>	Tb	159		ug/L			1061408	1036484	0
|	Tl	205	23.851	ug/L	0.163	0	43	798875	0
|	Pb	208	136.982	ug/L	0.154	0	368	5756484	0
|	Bi	209		ug/L			2680757	2652171	1
|	Th	232	25.168	ug/L	0.152	0	49	1056453	0
[	U	238	23.377	ug/L	0.070	0	2	1058244	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:00:38
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	1845068	1
[	Be	9	0.257	ug/L	0.010	3	12	1216	4
	C	13		ug/L			138826	185661	2
	Cl	37		ug/L			4735446	4785109	1
[>	Sc	45		ug/L			1275890	1314140	1
[	V	51	11.696	ug/L	0.194	1	9212	302099	1
[	V-1	51	11.686	ug/L	0.187	1	60	292525	1
[	Cr	52	8.014	ug/L	0.057	0	27310	186775	1
[	Cr	53	7.983	ug/L	0.140	1	159	18043	0
[	Mn	55	199.496	ug/L	4.315	2	592	5617530	1
[	Co	59	2.268	ug/L	0.032	1	80	43774	1
[>	Ge	72		ug/L			659198	602902	1
[	Ni	60	7.252	ug/L	0.243	3	16	26075	3
[	Ni	62	7.749	ug/L	0.246	3	275	4148	1
[	Cu	63	10.960	ug/L	0.274	2	372	87010	1
[	Cu	65	10.930	ug/L	0.255	2	41	38754	1
[	Zn	66	115.574	ug/L	4.517	3	192	259097	2
[	Zn	67	110.300	ug/L	2.345	2	31	41023	2
[	Zn	68	113.844	ug/L	3.621	3	189	182817	1
[	As	75	14.218	ug/L	0.165	1	267	27958	0
[	As-1	75	13.991	ug/L	0.215	1	10608	37310	0
[	Se	82	0.135	ug/L	0.088	65	-2	26	71
[	Se	78	0.068	ug/L	0.229	338	10783	9900	0
[	Mo	98	0.196	ug/L	0.011	5	8	888	5
	Y	89		ug/L			428598	479627	1
	Kr	83		ug/L			613	649	7
[>	In	115		ug/L			928277	922314	1
[	Ag	107	0.163	ug/L	0.007	4	14	1543	4
[	Cd	111	2.753	ug/L	0.009	0	65	11594	1
[	Cd	114	2.721	ug/L	0.039	1	31	28701	0
[	Sb	121	0.721	ug/L	0.017	2	40	9025	2
[	Sb	123	0.723	ug/L	0.019	2	30	6833	1
[	Ba	135	49.812	ug/L	0.358	0	13	185612	0
[	Ba	137	49.997	ug/L	0.907	1	15	321552	1
[>	Tb	159		ug/L			1061408	1039305	0
[	Tl	205	0.210	ug/L	0.001	0	43	7088	0
[	Pb	208	227.400	ug/L	0.669	0	368	9581910	0
[	Bi	209		ug/L			2680757	2667678	0
[	Th	232	3.452	ug/L	0.059	1	49	145340	1
[	U	238	0.376	ug/L	0.002	0	2	17074	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:04:45
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	1844950	0
	Be	9		0.268	ug/L	0.010	3	12	1267	2
	C	13			ug/L			138826	168970	0
	Cl	37			ug/L			4735446	4679166	0
>	Sc	45			ug/L			1275890	1311637	1
	V	51		11.995	ug/L	0.282	2	9212	308996	2
	V-1	51		12.067	ug/L	0.328	2	60	301467	2
	Cr	52		7.992	ug/L	0.109	1	27310	186007	2
	Cr	53		8.253	ug/L	0.189	2	159	18611	1
	Mn	55		124.634	ug/L	1.193	0	592	3503383	0
	Co	59		2.329	ug/L	0.038	1	80	44855	0
>	Ge	72			ug/L			659198	595336	2
	Ni	60		7.630	ug/L	0.370	4	16	27065	2
	Ni	62		8.000	ug/L	0.218	2	275	4221	2
	Cu	63		6.630	ug/L	0.069	1	372	52108	1
	Cu	65		6.552	ug/L	0.078	1	41	22955	2
	Zn	66		41.190	ug/L	0.907	2	192	91291	1
	Zn	67		44.422	ug/L	2.029	4	31	16319	2
	Zn	68		43.702	ug/L	1.700	3	189	69376	1
	As	75		1.372	ug/L	0.062	4	267	2880	3
	As-1	75		1.350	ug/L	0.147	10	10608	12205	0
	Se	82		0.050	ug/L	0.028	55	-2	7	73
	Se	78	W	0.176	ug/L	0.424	241	10783	9834	0
	Mo	98		0.148	ug/L	0.004	2	8	666	1
	Y	89			ug/L			428598	487115	0
	Kr	83			ug/L			613	659	4
>	In	115			ug/L			928277	894913	0
	Ag	107	V	0.049	ug/L	0.002	3	14	464	3
	Cd	111		0.215	ug/L	0.024	11	65	937	9
	Cd	114		0.174	ug/L	0.006	3	31	1809	2
	Sb	121		0.062	ug/L	0.005	7	40	789	6
	Sb	123	V	0.063	ug/L	0.001	1	30	609	2
	Ba	135		70.461	ug/L	0.484	0	13	254757	0
	Ba	137		71.443	ug/L	0.570	0	15	445862	0
>	Tb	159			ug/L			1061408	1058062	0
	Tl	205	W	0.057	ug/L	0.002	3	43	2008	3
	Pb	208		5.278	ug/L	0.034	0	368	226762	0
	Bi	209			ug/L			2680757	2638381	0
	Th	232		4.460	ug/L	0.030	0	49	191170	0
	U	238		0.443	ug/L	0.005	1	2	20470	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:08:52
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	1830062	1
	Be	9	0.261	ug/L	0.014	5	12	1227	4
	C	13		ug/L			138826	170741	2
	Cl	37		ug/L			4735446	4930850	1
>	Sc	45		ug/L			1275890	1310109	1
	V	51	11.939	ug/L	0.178	1	9212	307230	0
	V-1	51	12.026	ug/L	0.224	1	60	300092	0
	Cr	52	7.991	ug/L	0.352	4	27310	185742	3
	Cr	53	8.306	ug/L	0.353	4	159	18706	3
	Mn	55	118.468	ug/L	1.764	1	592	3326341	1
	Co	59	2.362	ug/L	0.051	2	80	45456	1
>	Ge	72		ug/L			659198	594341	0
	Ni	60	7.800	ug/L	0.241	3	16	27643	2
	Ni	62	8.095	ug/L	0.134	1	275	4263	2
	Cu	63	6.176	ug/L	0.091	1	372	48482	0
	Cu	65	6.332	ug/L	0.110	1	41	22150	1
	Zn	66	25.512	ug/L	0.384	1	192	56532	1
	Zn	67	28.619	ug/L	0.785	2	31	10512	2
	Zn	68	27.786	ug/L	0.584	2	189	44123	1
	As	75	1.370	ug/L	0.039	2	267	2873	1
	As-1	75	1.350	ug/L	0.027	1	10608	12190	0
	Se	82	0.120	ug/L	0.098	81	-2	22	90
	Se	78	0.169	ug/L	0.078	46	10783	9818	0
	Mo	98	0.171	ug/L	0.010	5	8	766	4
	Y	89		ug/L			428598	483223	1
	Kr	83		ug/L			613	601	3
>	In	115		ug/L			928277	909455	1
	Ag	107	0.035	ug/L	0.002	6	14	340	5
	Cd	111	0.138	ug/L	0.010	7	65	633	5
	Cd	114	0.108	ug/L	0.003	3	31	1149	4
	Sb	121	0.029	ug/L	0.002	7	40	395	4
	Sb	123	0.028	ug/L	0.002	5	30	292	4
	Ba	135	61.180	ug/L	1.488	2	13	224739	0
	Ba	137	61.064	ug/L	1.587	2	15	387177	0
>	Tb	159		ug/L			1061408	1038175	0
	Tl	205	0.058	ug/L	0.001	1	43	1976	1
	Pb	208	5.269	ug/L	0.009	0	368	222124	0
	Bi	209		ug/L			2680757	2638841	0
	Th	232	3.951	ug/L	0.038	0	49	166176	0
	U	238	0.465	ug/L	0.006	1	2	21073	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV13
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:13:01
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	1779742	1
	Be	9	48.833	ug/L	1.157	2	12	220858	1
	C	13		ug/L			138826	148947	1
	Cl	37		ug/L			4735446	5003125	1
>	Sc	45		ug/L			1275890	1216386	3
	V	51	46.405	ug/L	1.212	2	9212	1082950	1
	V-1	51	46.617	ug/L	1.312	2	60	1079433	0
	Cr	52	47.986	ug/L	1.229	2	27310	904912	2
	Cr	53	48.743	ug/L	2.183	4	159	101130	2
	Mn	55	46.449	ug/L	0.452	0	592	1211039	2
	Co	59	46.831	ug/L	1.793	3	80	834608	0
>	Ge	72		ug/L			659198	580863	1
	Ni	60	50.362	ug/L	0.552	1	16	174352	0
	Ni	62	50.693	ug/L	0.980	1	275	24807	1
	Cu	63	50.920	ug/L	0.643	1	372	388350	2
	Cu	65	50.126	ug/L	0.148	0	41	171130	1
	Zn	66	50.792	ug/L	1.718	3	192	109793	1
	Zn	67	51.124	ug/L	1.075	2	31	18329	0
	Zn	68	51.199	ug/L	0.843	1	189	79311	0
	As	75	50.289	ug/L	0.873	1	267	94668	0
	As-1	75	50.347	ug/L	0.978	1	10608	105050	0
	Se	82	52.534	ug/L	0.748	1	-2	10846	0
	Se	78	51.948	ug/L	1.163	2	10783	38359	0
	Mo	98	50.351	ug/L	0.679	1	8	218438	0
	Y	89		ug/L			428598	389794	0
	Kr	83		ug/L			613	587	2
>	In	115		ug/L			928277	877763	0
	Ag	107	47.871	ug/L	0.579	1	14	427838	1
	Cd	111	50.895	ug/L	0.633	1	65	202930	1
	Cd	114	51.066	ug/L	0.473	0	31	512121	1
	Sb	121	50.083	ug/L	0.526	1	40	593804	0
	Sb	123	50.112	ug/L	0.767	1	30	448732	2
	Ba	135	49.694	ug/L	0.897	1	13	176248	2
	Ba	137	49.356	ug/L	0.178	0	15	302139	0
>	Tb	159		ug/L			1061408	1016592	0
	Tl	205	45.618	ug/L	0.485	1	43	1498608	1
	Pb	208	47.731	ug/L	0.253	0	368	1967547	0
	Bi	209		ug/L			2680757	2541532	1
	Th	232	44.657	ug/L	0.213	0	49	1838512	0
	U	238	44.372	ug/L	0.391	0	2	1970157	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB13
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:19:54
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	1733163	0
[	Be	9	-0.001	ug/L	0.001	154	12	9	36
	C	13		ug/L			138826	155236	1
	Cl	37		ug/L			4735446	4883973	3
[>	Sc	45		ug/L			1275890	1200014	1
[	V	51	-0.018	ug/L	0.009	52	9212	8258	1
[	V-1	51	-0.000	ug/L	0.001	218	60	51	24
[	Cr	52	-0.060	ug/L	0.033	55	27310	24601	1
[	Cr	53	0.003	ug/L	0.003	115	159	155	5
[	Mn	55	0.001	ug/L	0.000	37	592	570	0
[	Co	59	0.001	ug/L	0.000	6	80	97	0
[>	Ge	72		ug/L			659198	572400	0
[	Ni	60	0.002	ug/L	0.001	34	16	20	11
[	Ni	62	-0.298	ug/L	0.011	3	275	96	4
[	Cu	63	-0.022	ug/L	0.002	9	372	159	9
[	Cu	65	0.003	ug/L	0.002	57	41	46	12
[	Zn	66	0.107	ug/L	0.031	28	192	393	16
[	Zn	67	0.111	ug/L	0.030	26	31	66	15
[	Zn	68	0.118	ug/L	0.020	16	189	344	9
[	As	75	0.021	ug/L	0.019	92	267	270	12
[	As-1	75	0.275	ug/L	0.032	11	10608	9726	0
[	Se	82	0.089	ug/L	0.042	47	-2	15	55
[	Se	78	0.940	ug/L	0.088	9	10783	9878	0
[	Mo	98	0.010	ug/L	0.002	16	8	49	14
	Y	89		ug/L			428598	385986	1
	Kr	83		ug/L			613	524	0
[>	In	115		ug/L			928277	846983	0
[	Ag	107	0.002	ug/L	0.000	13	14	27	7
[	Cd	111	0.002	ug/L	0.001	35	65	68	4
[	Cd	114	-0.000	ug/L	0.001	3650	31	29	20
[	Sb	121	0.065	ug/L	0.005	7	40	781	7
[	Sb	123	0.062	ug/L	0.005	7	30	567	7
[	Ba	135	0.002	ug/L	0.001	61	13	20	23
[	Ba	137	0.004	ug/L	0.001	20	15	36	13
[>	Tb	159		ug/L			1061408	984943	0
[	Tl	205	0.005	ug/L	0.002	41	43	184	32
[	Pb	208	0.006	ug/L	0.000	0	368	588	0
[	Bi	209		ug/L			2680757	2564313	1
[	Th	232	0.135	ug/L	0.015	10	49	5448	10
[	U	238	0.002	ug/L	0.000	14	2	74	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:24:03
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1851826	1
[	Be	9	0.214	ug/L	0.010	4	12	1020	3
	C	13		ug/L			138826	177254	1
	Cl	37		ug/L			4735446	4839853	1
[>	Sc	45		ug/L			1275890	1329398	1
[	V	51	11.917	ug/L	0.040	0	9212	311215	1
[	V-1	51	11.893	ug/L	0.063	0	60	301180	1
[	Cr	52	8.538	ug/L	0.102	1	27310	199411	0
[	Cr	53	8.457	ug/L	0.182	2	159	19324	0
[	Mn	55	213.764	ug/L	3.441	1	592	6089193	0
[	Co	59	2.300	ug/L	0.041	1	80	44904	0
[>	Ge	72		ug/L			659198	608080	3
[	Ni	60	7.106	ug/L	0.254	3	16	25749	0
[	Ni	62	7.587	ug/L	0.168	2	275	4101	2
[	Cu	63	6.522	ug/L	0.211	3	372	52326	0
[	Cu	65	6.579	ug/L	0.106	1	41	23539	2
[	Zn	66	71.552	ug/L	2.614	3	192	161763	0
[	Zn	67	68.595	ug/L	1.751	2	31	25726	1
[	Zn	68	71.109	ug/L	2.828	3	189	115164	1
[	As	75	7.073	ug/L	0.254	3	267	14142	1
[	As-1	75	6.905	ug/L	0.423	6	10608	23509	0
[	Se	82	0.167	ug/L	0.018	10	-2	33	12
[	Se	78	-0.041	ug/L	0.651	1604	10783	9914	0
[	Mo	98	0.184	ug/L	0.012	6	8	844	6
	Y	89		ug/L			428598	486547	1
	Kr	83		ug/L			613	625	2
[>	In	115		ug/L			928277	913603	0
[	Ag	107	0.083	ug/L	0.001	1	14	790	0
[	Cd	111	1.168	ug/L	0.039	3	65	4910	2
[	Cd	114	1.170	ug/L	0.009	0	31	12244	1
[	Sb	121	0.298	ug/L	0.004	1	40	3722	1
[	Sb	123	0.304	ug/L	0.002	0	30	2860	0
[	Ba	135	39.575	ug/L	0.204	0	13	146079	0
[	Ba	137	39.657	ug/L	0.304	0	15	252669	0
[>	Tb	159		ug/L			1061408	1065255	0
[	Tl	205	0.151	ug/L	0.006	3	43	5223	3
[	Pb	208	61.802	ug/L	0.104	0	368	2669443	0
[	Bi	209		ug/L			2680757	2647007	1
[	Th	232	3.874	ug/L	0.024	0	49	167194	0
[	U	238	0.391	ug/L	0.004	1	2	18210	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:28:10
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	1878817	1
[	Be	9	0.214	ug/L	0.006	2	12	1037	2
	C	13		ug/L			138826	191964	2
	Cl	37		ug/L			4735446	5006987	1
[>	Sc	45		ug/L			1275890	1336332	1
[	V	51	10.825	ug/L	0.134	1	9212	285042	0
[	V-1	51	10.815	ug/L	0.179	1	60	275298	0
[	Cr	52	7.771	ug/L	0.044	0	27310	185037	1
[	Cr	53	7.739	ug/L	0.162	2	159	17792	0
[	Mn	55	699.617	ug/L	11.816	1	592	20034667	2
[	Co	59	2.676	ug/L	0.034	1	80	52514	0
[>	Ge	72		ug/L			659198	621445	0
[	Ni	60	6.701	ug/L	0.023	0	16	24836	0
[	Ni	62	7.105	ug/L	0.110	1	275	3943	1
[	Cu	63	20.464	ug/L	0.224	1	372	167181	0
[	Cu	65	20.580	ug/L	0.580	2	41	75189	2
[	Zn	66	374.203	ug/L	4.171	1	192	864565	0
[	Zn	67	349.908	ug/L	5.671	1	31	134082	1
[	Zn	68	366.248	ug/L	5.521	1	189	606008	1
[	As	75	9.705	ug/L	0.136	1	267	19752	0
[	As-1	75	9.488	ug/L	0.167	1	10608	29298	0
[	Se	82	0.264	ug/L	0.074	28	-2	55	28
[	Se	78	-0.053	ug/L	0.160	302	10783	10133	0
[	Mo	98	0.338	ug/L	0.001	0	8	1575	1
	Y	89		ug/L			428598	481085	2
	Kr	83		ug/L			613	605	4
[>	In	115		ug/L			928277	986485	1
[	Ag	107	0.286	ug/L	0.018	6	14	2888	5
[	Cd	111	8.517	ug/L	0.203	2	65	38215	1
[	Cd	114	8.499	ug/L	0.203	2	31	95792	1
[	Sb	121	1.522	ug/L	0.040	2	40	20322	1
[	Sb	123	1.553	ug/L	0.033	2	30	15661	0
[	Ba	135	125.079	ug/L	2.333	1	13	498430	0
[	Ba	137	124.411	ug/L	2.520	2	15	855767	1
[>	Tb	159		ug/L			1061408	1065651	0
[	Tl	205	0.434	ug/L	0.003	0	43	14972	0
[	Pb	208	641.324	ug/L	4.907	0	368	27707918	1
[	Bi	209		ug/L			2680757	2724463	0
[	Th	232	2.522	ug/L	0.005	0	49	108872	0
[	U	238	0.357	ug/L	0.001	0	2	16620	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:32:17
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

RR Pb. Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1850587	1
	Be	9	0.615	ug/L	0.011	1	12	2907	0
	C	13		ug/L			138826	205438	2
	Cl	37		ug/L			4735446	5013506	1
>	Sc	45		ug/L			1275890	1399029	1
	V	51	22.370	ug/L	0.208	0	9212	605989	2
	V-1	51	22.365	ug/L	0.387	1	60	596097	3
	Cr	52	27.345	ug/L	0.891	3	27310	606052	1
	Cr	53	27.319	ug/L	0.191	0	159	65320	0
	Mn	55	1268.370	ug/L	17.198	1	592	38021287	0
	Co	59	9.196	ug/L	0.017	0	80	188727	1
>	Ge	72		ug/L			659198	601256	0
	Ni	60	29.835	ug/L	0.531	1	16	106934	1
	Ni	62	31.269	ug/L	0.654	2	275	15937	1
	Cu	63	32.635	ug/L	1.129	3	372	257747	3
	Cu	65	32.832	ug/L	0.353	1	41	116032	0
	Zn	66	498.667	ug/L	8.167	1	192	1114599	1
	Zn	67	471.084	ug/L	7.289	1	31	174629	1
	Zn	68	498.198	ug/L	3.725	0	189	797527	1
	As	75	35.725	ug/L	0.429	1	267	69694	0
	As-1	75	35.193	ug/L	0.436	1	10608	78935	0
	Se	82	0.334	ug/L	0.019	5	-2	68	6
	Se	78	0.281	ug/L	0.106	37	10783	9996	0
	Mo	98	0.696	ug/L	0.007	1	8	3131	0
	Y	89		ug/L			428598	555847	1
	Kr	83		ug/L			613	774	0
>	In	115		ug/L			928277	940764	0
	Ag	107	0.256	ug/L	0.017	6	14	2461	5
	Cd	111	9.689	ug/L	0.179	1	65	41453	1
	Cd	114	9.623	ug/L	0.057	0	31	103456	0
	Sb	121	0.532	ug/L	0.006	1	40	6799	0
	Sb	123	0.527	ug/L	0.008	1	30	5087	1
	Ba	135	275.624	ug/L	2.808	1	13	1047560	0
	Ba	137	274.716	ug/L	1.630	0	15	1802302	0
>	Tb	159		ug/L			1061408	1052122	0
	Tl	205	0.348	ug/L	0.002	0	43	11878	0
	Pb	208	579.686	ug/L	6.694	1	368	24725295	0
	Bi	209		ug/L			2680757	2602878	0
	Th	232	5.542	ug/L	0.063	1	49	236160	0
	U	238	0.502	ug/L	0.006	1	2	23061	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:36:25
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\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1738475	1838661	1
Be	9	0.305	ug/L	0.008	2	12	1438	2
C	13		ug/L			138826	190959	2
Cl	37		ug/L			4735446	4884792	2
> Sc	45		ug/L			1275890	1351688	1
V	51	12.997	ug/L	0.291	2	9212	344147	0
V-1	51	12.993	ug/L	0.249	1	60	334495	0
Cr	52	9.462	ug/L	0.209	2	27310	221537	0
Cr	53	9.453	ug/L	0.128	1	159	21947	1
Mn	55	380.801	ug/L	1.310	0	592	11030250	1
Co	59	2.951	ug/L	0.099	3	80	58554	1
> Ge	72		ug/L			659198	618538	1
Ni	60	9.291	ug/L	0.166	1	16	34262	0
Ni	62	9.541	ug/L	0.154	1	275	5181	1
Cu	63	11.790	ug/L	0.181	1	372	96001	0
Cu	65	11.901	ug/L	0.219	1	41	43296	2
Zn	66	137.415	ug/L	4.342	3	192	316036	1
Zn	67	131.411	ug/L	1.816	1	31	50142	2
Zn	68	137.283	ug/L	2.132	1	189	226179	1
As	75	13.259	ug/L	0.311	2	267	26762	1
As-1	75	12.939	ug/L	0.354	2	10608	36143	0
Se	82	0.143	ug/L	0.013	9	-2	28	9
Se	78	-0.261	ug/L	0.282	108	10783	9962	0
Mo	98	0.290	ug/L	0.007	2	8	1348	3
Y	89		ug/L			428598	506341	2
Kr	83		ug/L			613	684	3
> In	115		ug/L			928277	923162	1
Ag	107	0.129	ug/L	0.003	2	14	1223	1
Cd	111	2.588	ug/L	0.037	1	65	10914	0
Cd	114	2.530	ug/L	0.032	1	31	26713	1
Sb	121	0.500	ug/L	0.009	1	40	6270	2
Sb	123	0.504	ug/L	0.015	3	30	4772	1
Ba	135	112.664	ug/L	2.485	2	13	420125	0
Ba	137	113.068	ug/L	2.483	2	15	727789	0
> Tb	159		ug/L			1061408	1056751	1
Tl	205	0.174	ug/L	0.003	1	43	5979	0
Pb	208	125.761	ug/L	1.438	1	368	5387866	0
Bi	209		ug/L			2680757	2664741	1
Th	232	3.446	ug/L	0.032	0	49	147530	0
U	238	0.453	ug/L	0:005	0	2	20901	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:40:32
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

RR Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1876847	1
	Be	9	0.561	ug/L	0.002	0	12	2687	1
	C	13		ug/L			138826	202304	1
	Cl	37		ug/L			4735446	4973104	3
>	Sc	45		ug/L			1275890	1388029	0
	V	51	21.591	ug/L	0.579	2	9212	580564	2
	V-1	51	21.610	ug/L	0.467	2	60	571322	1
	Cr	52	18.437	ug/L	0.372	2	27310	415185	1
	Cr	53	18.508	ug/L	0.347	1	159	43960	1
	Mn	55	1166.385	ug/L	7.994	0	592	34694561	1
	Co	59	8.556	ug/L	0.280	3	80	174195	2
>	Ge	72		ug/L			659198	607438	0
	Ni	60	21.625	ug/L	0.397	1	16	78305	1
	Ni	62	22.633	ug/L	0.196	0	275	11724	0
	Cu	63	27.641	ug/L	0.447	1	372	220601	1
	Cu	65	28.012	ug/L	0.568	2	41	100030	2
	Zn	66	457.846	ug/L	7.896	1	192	1033925	1
	Zn	67	441.611	ug/L	4.869	1	31	165392	0
	Zn	68	459.358	ug/L	5.440	1	189	742875	0
	As	75	16.558	ug/L	0.213	1	267	32766	1
	As-1	75	16.211	ug/L	0.227	1	10608	42006	0
	Se	82	0.188	ug/L	0.037	19	-2	37	21
	Se	78	-0.019	ug/L	0.205	1054	10783	9924	0
	Mo	98	0.837	ug/L	0.020	2	8	3803	2
	Y	89		ug/L			428598	538721	0
	Kr	83		ug/L			613	784	4
>	In	115		ug/L			928277	941248	2
	Ag	107	0.335	ug/L	0.016	4	14	3220	3
	Cd	111	7.627	ug/L	0.118	1	65	32658	0
	Cd	114	7.529	ug/L	0.100	1	31	80975	1
	Sb	121	0.413	ug/L	0.009	2	40	5293	0
	Sb	123	0.405	ug/L	0.003	0	30	3922	2
	Ba	135	329.849	ug/L	8.474	2	13	1253831	0
	Ba	137	378.963	ug/L	7.066	1	15	2486880	0
>	Tb	159		ug/L			1061408	1061260	1
	Tl	205	0.346	ug/L	0.003	0	43	11900	2
	Pb	208	422.515	ug/L	6.616	1	368	18176377	0
	Bi	209		ug/L			2680757	2581704	0
	Th	232	4.616	ug/L	0.034	0	49	198403	0
	U	238	0.604	ug/L	0.017	2	2	28008	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:45:43
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\112812.cal

RR Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1823508	0
[	Be	9	0.429	ug/L	0.015	3	12	2002	3
	C	13		ug/L			138826	183406	1
	Cl	37		ug/L			4735446	4841791	1
[>	Sc	45		ug/L			1275890	1321434	0
[	V	51	19.173	ug/L	0.171	0	9212	491926	0
[	V-1	51	19.198	ug/L	0.068	0	60	483260	0
[	Cr	52	16.518	ug/L	0.071	0	27310	357095	0
[	Cr	53	16.611	ug/L	0.470	2	159	37580	2
[	Mn	55	983.863	ug/L	14.486	1	592	27860300	1
[	Co	59	5.651	ug/L	0.086	1	80	109573	1
[>	Ge	72		ug/L			659198	592306	0
[	Ni	60	15.947	ug/L	0.368	2	16	56307	1
[	Ni	62	16.814	ug/L	0.397	2	275	8555	1
[	Cu	63	19.245	ug/L	0.380	1	372	149877	2
[	Cu	65	19.629	ug/L	0.232	1	41	68352	0
[	Zn	66	325.790	ug/L	6.287	1	192	717461	2
[	Zn	67	320.217	ug/L	7.524	2	31	116948	2
[	Zn	68	330.049	ug/L	4.990	1	189	520554	2
[	As	75	16.979	ug/L	0.200	1	267	32756	0
[	As-1	75	16.798	ug/L	0.293	1	10608	42096	0
[	Se	82	0.086	ug/L	0.065	75	-2	15	88
[	Se	78	0.470	ug/L	0.401	85	10783	9954	1
[	Mo	98	0.528	ug/L	0.017	3	8	2343	3
	Y	89		ug/L			428598	509963	1
	Kr	83		ug/L			613	768	1
[>	In	115		ug/L			928277	933952	1
[	Ag	107	0.237	ug/L	0.002	0	14	2272	0
[	Cd	111	5.691	ug/L	0.050	0	65	24199	0
[	Cd	114	5.693	ug/L	0.091	1	31	60761	0
[	Sb	121	0.780	ug/L	0.013	1	40	9881	2
[	Sb	123	0.784	ug/L	0.016	2	30	7494	0
[	Ba	135	264.914	ug/L	4.437	1	13	999450	0
[	Ba	137	263.482	ug/L	4.528	1	15	1715851	0
[>	Tb	159		ug/L			1061408	1037356	0
[	Tl	205	0.285	ug/L	0.005	1	43	9588	1
[	Pb	208	333.924	ug/L	2.331	0	368	14043821	0
[	Bi	209		ug/L			2680757	2607309	0
[	Th	232	2.427	ug/L	0.020	0	49	102022	0
[	U	238	0.525	ug/L	0.011	2	2	23770	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:49:51
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

R2 P&Z

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1868419	1
[	Be	9	0.312	ug/L	0.005	1	12	1493	1
	C	13		ug/L			138826	189412	2
	Cl	37		ug/L			4735446	5181587	2
[>	Sc	45		ug/L			1275890	1359911	0
[	V	51	23.798	ug/L	0.190	0	9212	626010	1
[	V-1	51	23.761	ug/L	0.208	0	60	615554	1
[	Cr	52	18.801	ug/L	0.132	0	27310	414244	0
[	Cr	53	18.678	ug/L	0.173	0	159	43466	1
[	Mn	55	387.426	ug/L	4.168	1	592	11291077	1
[	Co	59	5.827	ug/L	0.056	0	80	116259	1
[>	Ge	72		ug/L			659198	604652	1
[	Ni	60	14.845	ug/L	0.361	2	16	53502	1
[	Ni	62	16.553	ug/L	0.628	3	275	8599	1
[	Cu	63	19.415	ug/L	0.336	1	372	154315	0
[	Cu	65	19.581	ug/L	0.084	0	41	69610	1
[	Zn	66	388.377	ug/L	8.409	2	192	872837	0
[	Zn	67	365.761	ug/L	4.110	1	31	136346	0
[	Zn	68	385.004	ug/L	12.915	3	189	619572	1
[	As	75	9.086	ug/L	0.147	1	267	18005	0
[	As-1	75	8.896	ug/L	0.265	2	10608	27330	0
[	Se	82	0.238	ug/L	0.054	22	-2	48	22
[	Se	78	0.114	ug/L	0.428	375	10783	9954	1
[	Mo	98	0.281	ug/L	0.015	5	8	1275	4
	Y	89		ug/L			428598	543008	2
	Kr	83		ug/L			613	680	4
[>	In	115		ug/L			928277	960007	1
[	Ag	107	0.276	ug/L	0.010	3	14	2713	4
[	Cd	111	6.006	ug/L	0.091	1	65	26248	1
[	Cd	114	5.934	ug/L	0.073	1	31	65111	0
[	Sb	121	0.409	ug/L	0.001	0	40	5344	1
[	Sb	123	0.412	ug/L	0.008	1	30	4065	1
[	Ba	135	101.430	ug/L	0.722	0	13	393393	0
[	Ba	137	101.226	ug/L	2.462	2	15	677575	1
[>	Tb	159		ug/L			1061408	1059168	1
[	Tl	205	0.366	ug/L	0.003	0	43	12572	0
[	Pb	208	345.155	ug/L	3.971	1	368	14820241	0
[	Bi	209		ug/L			2680757	2632732	0
[	Th	232	4.316	ug/L	0.037	0	49	185150	0
[	U	238	0.401	ug/L	0.010	2	2	18535	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:53:58
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\112812.cal

RR Ph

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1844979	0
	Be	9	0.377	ug/L	0.011	2	12	1781	2
	C	13		ug/L			138826	202486	2
	Cl	37		ug/L			4735446	4846745	1
>	Sc	45		ug/L			1275890	1337965	1
	V	51	17.490	ug/L	0.592	3	9212	454999	1
	V-1	51	17.566	ug/L	0.574	3	60	447540	1
	Cr	52	10.280	ug/L	0.095	0	27310	235814	1
	Cr	53	10.565	ug/L	0.055	0	159	24261	1
	Mn	55	352.435	ug/L	13.871	3	592	10100968	2
	Co	59	3.424	ug/L	0.086	2	80	67235	1
>	Ge	72		ug/L			659198	608077	0
	Ni	60	9.819	ug/L	0.186	1	16	35601	1
	Ni	62	10.762	ug/L	0.233	2	275	5714	1
	Cu	63	30.091	ug/L	0.467	1	372	240394	1
	Cu	65	31.175	ug/L	0.520	1	41	111432	1
	Zn	66	299.576	ug/L	0.651	0	192	677310	0
	Zn	67	284.621	ug/L	0.726	0	31	106722	0
	Zn	68	293.147	ug/L	3.890	1	189	474659	1
	As	75	29.415	ug/L	0.102	0	267	58082	0
	As-1	75	28.922	ug/L	0.136	0	10608	67352	0
	Se	82	0.288	ug/L	0.037	12	-2	59	13
	Se	78	-0.022	ug/L	0.208	956	10783	9934	0
	Mo	98	0.446	ug/L	0.009	1	8	2033	2
	Y	89		ug/L			428598	521682	1
	Kr	83		ug/L			613	688	4
>	In	115		ug/L			928277	963868	0
	Ag	107	0.521	ug/L	0.016	2	14	5123	2
	Cd	111	6.761	ug/L	0.110	1	65	29658	1
	Cd	114	6.577	ug/L	0.036	0	31	72455	0
	Sb	121	1.672	ug/L	0.021	1	40	21806	1
	Sb	123	1.686	ug/L	0.016	0	30	16606	1
	Ba	135	130.341	ug/L	1.333	1	13	507572	1
	Ba	137	127.852	ug/L	0.732	0	15	859412	0
>	Tb	159		ug/L			1061408	1055197	0
	Tl	205	0.449	ug/L	0.004	0	43	15349	0
	Pb	208	641.354	ug/L	4.476	0	368	27436782	0
	Bi	209		ug/L			2680757	2654045	0
	Th	232	2.682	ug/L	0.044	1	49	114642	1
	U	238	0.526	ug/L	0.006	1	2	24223	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV14
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 21:58:07
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\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1798931	1
	Be	9	49.962	ug/L	1.020	2	12	228473	2
	C	13		ug/L			138826	151588	1
	Cl	37		ug/L			4735446	5039579	0
>	Sc	45		ug/L			1275890	1266522	1
	V	51	45.031	ug/L	0.889	1	9212	1094886	1
	V-1	51	45.078	ug/L	0.828	1	60	1087355	1
	Cr	52	47.584	ug/L	0.524	1	27310	934870	0
	Cr	53	47.746	ug/L	0.329	0	159	103231	0
	Mn	55	45.318	ug/L	0.725	1	592	1230652	2
	Co	59	45.967	ug/L	0.708	1	80	853599	1
>	Ge	72		ug/L			659198	598360	1
	Ni	60	48.955	ug/L	0.816	1	16	174588	0
	Ni	62	49.875	ug/L	1.096	2	275	25146	1
	Cu	63	49.992	ug/L	1.229	2	372	392706	1
	Cu	65	49.431	ug/L	1.435	2	41	173815	2
	Zn	66	50.800	ug/L	1.373	2	192	113181	3
	Zn	67	49.819	ug/L	1.579	3	31	18401	2
	Zn	68	50.551	ug/L	0.671	1	189	80678	0
	As	75	49.559	ug/L	0.883	1	267	96114	0
	As-1	75	49.339	ug/L	0.966	1	10608	106249	0
	Se	82	52.092	ug/L	0.879	1	-2	11080	0
	Se	78	50.519	ug/L	1.092	2	10783	38700	0
	Mo	98	49.456	ug/L	1.013	2	8	221028	1
	Y	89		ug/L			428598	396038	1
	Kr	83		ug/L			613	580	0
>	In	115		ug/L			928277	873498	1
	Ag	107	50.242	ug/L	0.706	1	14	446882	2
	Cd	111	51.565	ug/L	0.661	1	65	204568	0
	Cd	114	51.451	ug/L	0.253	0	31	513454	1
	Sb	121	50.844	ug/L	0.539	1	40	599869	0
	Sb	123	51.113	ug/L	0.377	0	30	455430	1
	Ba	135	50.046	ug/L	0.623	1	13	176608	0
	Ba	137	50.034	ug/L	0.489	0	15	304814	2
>	Tb	159		ug/L			1061408	1010754	1
	Tl	205	45.640	ug/L	0.304	0	43	1490757	1
	Pb	208	47.922	ug/L	0.297	0	368	1964087	1
	Bi	209		ug/L			2680757	2577317	0
	Th	232	44.867	ug/L	0.109	0	49	1836522	0
	U	238	48.155	ug/L	5.503	11	2	2127477	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB14
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 22:05:00
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	1747498	0
[	Be	9	-0.000	ug/L	0.000	1755	12	12	8
	C	13		ug/L			138826	153032	2
	Cl	37		ug/L			4735446	4848338	1
[>	Sc	45		ug/L			1275890	1199428	2
|	V	51	-0.031	ug/L	0.009	29	9212	7953	3
|	V-1	51	0.000	ug/L	0.000	46	60	59	3
|	Cr	52	-0.107	ug/L	0.037	34	27310	23748	3
|	Cr	53	0.005	ug/L	0.008	175	159	159	9
|	Mn	55	0.001	ug/L	0.001	71	592	591	2
[	Co	59	0.001	ug/L	0.001	135	80	85	14
[>	Ge	72		ug/L			659198	578264	2
|	Ni	60	0.001	ug/L	0.001	129	16	17	23
|	Ni	62	-0.350	ug/L	0.011	3	275	72	8
|	Cu	63	-0.023	ug/L	0.001	4	372	150	6
|	Cu	65	0.005	ug/L	0.001	15	41	54	2
|	Zn	66	0.080	ug/L	0.006	8	192	341	6
|	Zn	67	0.070	ug/L	0.009	13	31	52	7
|	Zn	68	0.088	ug/L	0.014	16	189	301	9
|	As	75	0.016	ug/L	0.016	103	267	263	9
|	As-1	75	0.155	ug/L	0.121	77	10608	9595	0
|	Se	82	-0.027	ug/L	0.011	40	-2	-8	28
|	Se	78	0.500	ug/L	0.409	81	10783	9732	0
[	Mo	98	0.007	ug/L	0.002	22	8	38	17
	Y	89		ug/L			428598	389197	1
	Kr	83		ug/L			613	572	2
[>	In	115		ug/L			928277	865069	0
|	Ag	107	0.001	ug/L	0.001	53	14	24	22
|	Cd	111	0.003	ug/L	0.002	66	65	72	10
|	Cd	114	0.000	ug/L	0.000	104	31	30	3
|	Sb	121	0.057	ug/L	0.006	10	40	707	8
|	Sb	123	0.058	ug/L	0.004	6	30	541	5
|	Ba	135	0.003	ug/L	0.001	34	13	24	16
[	Ba	137	0.004	ug/L	0.001	17	15	39	11
[>	Tb	159		ug/L			1061408	980999	0
|	Tl	205	0.003	ug/L	0.001	24	43	148	18
|	Pb	208	0.009	ug/L	0.001	5	368	714	2
|	Bi	209		ug/L			2680757	2595194	0
|	Th	232	0.140	ug/L	0.007	4	49	5620	4
[	U	238	0.002	ug/L	0.000	12	2	72	11

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: 11-19-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2993-3
		2			2992-12
		3			-13
		4			-14
		5			2993-1
		ICV			2988-6
		ICB			
		CRI			
		ICSA			V>2RL(0.00616mg/L) - NR
		ICSAB			
		Hi PUR QC7			Fail high - remake 2993-7
		Spex QC21			-8
		DI Check			
		CCV1			
		CCB1			
		Hi PUR QC7			2993-10
		Spex QC21			-11
		CCV2			
		CCB2			
		VS75 MB	PHN		
		VS67 MB	LEN	5	
		VS75 A	PHN		
		B			
		VS67 B	LEN	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: 11-19-12 Analyst: BA

LR Date: — Page: 2 of 6

All corrections made by analyst unless otherwise noted. BA 11-19-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS67 ADUP	LEN	5 ✓	
		A	↓	↓	
		ASPK	↓	↓ ✓	
		VS75 MBSPK	PHN	✓	Spiked as for soil
		CCV3			
		CCB3			
		VR36 E	SWC	5	
		F	↓	↓	
		G			
		H			
		I			
		J			
		K			
		L	↓	↓	
		CCV4			
		CCB4			
		CRI			
		ICSA			V > 2xRL (0.00648 mg/L)
		ICSAB			
		CCV5			
		CCB5			End VR36
		VS62 MB1	TWC	✓	
		A	↓		
		B	↓		

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

LR Date: — Page: 3 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		V562 C	TWC		
		↓ MB1SPK	↓	✓	
		CCV6			Sl. noisy - levels OK
		CCB6			
		V595 MB	TWC		
		V591 MB1	LEN	5	
		B			
		ADUP		✓	
		A			
		↓ ASPK	↓	↓ ✓	
		V595 ADUP	TWC	✓	
		A			
		ASPK		✓	
		↓ MBSPK	↓	✓	
		CCV7			
		CCB7			
		V591 MB2	LEN	5	
		C			
		D			
		E			
		F			
		G			
		↓ H	↓	↓	
		CCV8			

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

LR Date: — Page: 4 of 6

All corrections made by analyst unless otherwise noted. BA 11/20/12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCB8			C_{Cu} > RL (0.0505 mg/L) - A.N.
		VR35 MB1	SWC	2	C_{Cu} > RL (0.06674 mg/L) - A.N.
		B		5	
		C		↓	
		D		↓	
		A-L		25 ✓	
		A		5	
		ADUP		↓ ✓	
		ASPK		↓ ✓	
		~~ZZZZZZ~~			Al Fe STL
VR35 APDST		~~APDST~~		↓ ✓	(0.08 mL ICP Spike 2977-9) ↓
		MB1SPK	↓	2 ✓	
		CCV9			
		CCB9			
		VR35 E	SWC	5	
		F		↓	
		G			
		H			
		I			
		J			
		K			
		L			
		VR37 B	↓	↓	
		CCV10			
		CCB10			

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

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
		CRI			
		ICSA			
		ICSAB			
		CCV11			
		CCB11			End VR35
		VR37 MB1	SWC	2	
		C		5	
		D		↓	
		E		↓	
		A-L		25	Mg >10% d.f.
		A		5	
		ADUP		↓	11/20/12
		ASPK ZZZZZZ ~~APOST~~		↓	BA Al Fe STL (0.58mL ICP Spike 2977-9) ↓
		MB1SPK	↓	2	
		CCV12			
		CCB12			
		VR37 F	SWC	5	
		G		↓	
		H			
		I			
		J			
		K			
		L	↓	↓	

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-19-12

ICP-2	Analyst BA 11-20-12	Peer AJ 11-20-12	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	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	See log
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
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. - VR35, VR37

Analysis Begun

Start Time: 11/19/2012 9:39:58 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121119
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: 11/19/2012 9:39:59 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	2384701.4	4608.89	0.19%	100.0	%
ScR 361.383	305379.5	3155.68	1.03%	100.0	%
Ag 328.068†	-101.1	16.84	16.66%	[0.00]	mg/L
Al 308.215†	171.8	2.75	1.60%	[0.00]	mg/L
As 188.979†	-10.9	3.68	33.76%	[0.00]	mg/L
B 249.677†	35.4	5.86	16.54%	[0.00]	mg/L
Ba 233.527†	19.7	3.07	15.60%	[0.00]	mg/L
Be 313.042†	925.5	25.79	2.79%	[0.00]	mg/L
Ca 317.933†	162.2	2.76	1.70%	[0.00]	mg/L
Cd 228.802†	290.1	1.84	0.64%	[0.00]	mg/L
Co 228.616†	-74.7	3.87	5.18%	[0.00]	mg/L
Cr 267.716†	-97.4	3.04	3.12%	[0.00]	mg/L
Cu 324.752†	2355.3	28.96	1.23%	[0.00]	mg/L
Fe 273.955†	15.2	0.92	6.08%	[0.00]	mg/L
K 766.490†	501.5	23.15	4.61%	[0.00]	mg/L
Mg 279.077†	85.3	7.13	8.36%	[0.00]	mg/L
Mn 257.610†	143.0	2.67	1.87%	[0.00]	mg/L
Mo 202.031†	61.4	1.24	2.02%	[0.00]	mg/L
Na 589.592†	-362.5	41.48	11.44%	[0.00]	mg/L
Na 330.237†	-193.4	5.61	2.90%	[0.00]	mg/L
Ni 231.604†	-27.9	8.73	31.30%	[0.00]	mg/L
Pb 220.353†	61.0	4.49	7.36%	[0.00]	mg/L
Sb 206.836†	67.6	0.89	1.32%	[0.00]	mg/L
Se 196.026†	-48.7	2.76	5.67%	[0.00]	mg/L
Si 288.158†	64.4	6.34	9.86%	[0.00]	mg/L
Sn 189.927†	-3.2	1.68	52.85%	[0.00]	mg/L
Sr 421.552†	455.0	18.66	4.10%	[0.00]	mg/L
Ti 334.903†	-37.6	5.29	14.07%	[0.00]	mg/L
Tl 190.801†	-33.7	2.10	6.24%	[0.00]	mg/L
V 292.402†	136.6	19.02	13.92%	[0.00]	mg/L
Zn 206.200†	20.9	0.77	3.68%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/19/2012 9:44:14 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2424350.4	41023.98	1.69%	101.7	%
ScR 361.383	308023.9	3424.76	1.11%	100.9	%
Ba 233.527†	41913.0	615.41	1.47%	[10]	mg/L
Cd 228.802†	291901.6	6441.87	2.21%	[10]	mg/L
Co 228.616†	335724.5	6899.11	2.05%	[10]	mg/L
Cr 267.716†	59426.5	981.66	1.65%	[10]	mg/L
Cu 324.752†	2450995.7	53580.29	2.19%	[10]	mg/L
Mn 257.610†	357486.4	6314.41	1.77%	[10]	mg/L
V 292.402†	1202264.8	24815.64	2.06%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/19/2012 9:46:00 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	Conc.	Calib Units
ScA 357.253	2381421.3	15458.64	0.65%	99.86	%
ScR 361.383	302156.2	6667.97	2.21%	98.94	%
Ag 328.068†	161047.9	1042.51	0.65%	[1.0]	mg/L
As 188.979†	16890.6	95.67	0.57%	[10]	mg/L
B 249.677†	72462.1	1080.23	1.49%	[10]	mg/L
Be 313.042†	3087209.7	70886.29	2.30%	[5.0]	mg/L
Na 589.592†	583586.6	13871.49	2.38%	[50]	mg/L
Ni 231.604†	37385.5	458.31	1.23%	[10]	mg/L
Pb 220.353†	74649.5	471.06	0.63%	[10]	mg/L
Se 196.026†	13506.2	52.13	0.39%	[10]	mg/L
Sr 421.552†	4277096.3	75714.50	1.77%	[5]	mg/L
Tl 190.801†	22861.0	130.43	0.57%	[10]	mg/L
Zn 206.200†	35757.2	401.92	1.12%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/19/2012 9:48:33 AM
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	2409729.6	13380.70	0.56%	101.0	%
ScR 361.383	303278.2	3194.36	1.05%	99.31	%
Mo 202.031†	192376.5	1662.99	0.86%	[10]	mg/L
Sb 206.836†	31393.2	308.51	0.98%	[10]	mg/L
Si 288.158†	20838.8	275.10	1.32%	[10]	mg/L
Sn 189.927†	37243.7	354.36	0.95%	[10]	mg/L
Ti 334.903†	207657.2	3676.19	1.77%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/19/2012 9:50:48 AM
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	2270252.2	10594.76	0.47%	95.20	%
ScR 361.383	304345.1	7096.65	2.33%	99.66	%
Al 308.215†	50120.1	654.78	1.31%	[30]	mg/L
Ca 317.933†	399022.8	11938.26	2.99%	[30]	mg/L
Fe 273.955†	131279.7	3641.30	2.77%	[100]	mg/L
K 766.490†	190774.3	5931.68	3.11%	[100]	mg/L
Mg 279.077†	40817.1	481.11	1.18%	[30]	mg/L
Na 330.237†	2794.7	26.25	0.94%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	161000	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1671	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1689	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7246	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4191	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	617400	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	13300	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	29190	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	33570	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5943	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	245100	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1313	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1908	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1361	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	35750	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	19240	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	11670	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	27.95	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3739	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7465	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3139	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1351	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2084	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3724	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	855400	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	20770	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2286	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	120200	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3576	0.00000	1.000000	

Analysis Begun

Start Time: 11/19/2012 9:53:58 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121119
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: 11/19/2012 9:53:59 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	2377518.9	99.70	%	0.390				0.39%
ScR 361.383	304072.1	99.57	%	0.483				0.49%
Ag 328.068†	169374.1	1.052	mg/L	0.0039	1.052	mg/L	0.0039	0.37%
Al 308.215†	3449.2	2.030	mg/L	0.0158	2.030	mg/L	0.0158	0.78%
As 188.979†	3485.1	2.087	mg/L	0.0041	2.087	mg/L	0.0041	0.20%
B 249.677†	7335.8	1.011	mg/L	0.0072	1.011	mg/L	0.0072	0.71%
Ba 233.527†	4280.1	1.021	mg/L	0.0045	1.021	mg/L	0.0045	0.44%
Be 313.042†	613442.2	0.9933	mg/L	0.00850	0.9933	mg/L	0.00850	0.86%
Ca 317.933†	25859.9	1.944	mg/L	0.0121	1.944	mg/L	0.0121	0.62%
Cd 228.802†	31087.5	1.052	mg/L	0.0030	1.052	mg/L	0.0030	0.28%
Co 228.616†	34364.4	1.022	mg/L	0.0021	1.022	mg/L	0.0021	0.21%
Cr 267.716†	6106.2	1.027	mg/L	0.0052	1.027	mg/L	0.0052	0.51%
Cu 324.752†	249248.6	1.017	mg/L	0.0016	1.017	mg/L	0.0016	0.16%
Fe 273.955†	2708.1	2.056	mg/L	0.0174	2.056	mg/L	0.0174	0.85%
K 766.490†	38272.8	20.06	mg/L	0.132	20.06	mg/L	0.132	0.66%
Mg 279.077†	2750.3	2.029	mg/L	0.0114	2.029	mg/L	0.0114	0.56%
Mn 257.610†	35577.4	0.9956	mg/L	0.01117	0.9956	mg/L	0.01117	1.12%
Mo 202.031†	19399.4	1.008	mg/L	0.0013	1.008	mg/L	0.0013	0.13%
Na 589.592†	599499.3	51.36	mg/L	0.405	51.36	mg/L	0.405	0.79%
Na 330.237†	1463.5	52.25	mg/L	0.382	52.25	mg/L	0.382	0.73%
Ni 231.604†	3796.3	1.016	mg/L	0.0069	1.016	mg/L	0.0069	0.68%
Pb 220.353†	15025.1	2.014	mg/L	0.0029	2.014	mg/L	0.0029	0.14%
Sb 206.836†	6699.7	2.133	mg/L	0.0037	2.133	mg/L	0.0037	0.17%
Se 196.026†	2767.0	2.048	mg/L	0.0077	2.048	mg/L	0.0077	0.38%
Si 288.158†	4283.7	2.055	mg/L	0.0169	2.055	mg/L	0.0169	0.82%
Sn 189.927†	3801.8	1.022	mg/L	0.0011	1.022	mg/L	0.0011	0.11%
Sr 421.552†	863628.4	1.010	mg/L	0.0082	1.010	mg/L	0.0082	0.82%
Ti 334.903†	20584.9	0.9901	mg/L	0.00916	0.9901	mg/L	0.00916	0.93%
Tl 190.801†	4673.7	2.036	mg/L	0.0010	2.036	mg/L	0.0010	0.05%
V 292.402†	125243.6	1.046	mg/L	0.0033	1.046	mg/L	0.0033	0.32%
Zn 206.200†	3752.0	1.049	mg/L	0.0066	1.049	mg/L	0.0066	0.63%

Sequence No.: 2
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 9:58:02 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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2383180.6	99.94	%	0.197				0.20%
ScR 361.383	306428.3	100.3	%	1.76				1.75%
Ag 328.068†	-2.7	-0.00002	mg/L	0.000133	-0.00002	mg/L	0.000133	798.67%
Al 308.215†	5.4	0.00320	mg/L	0.002724	0.00320	mg/L	0.002724	85.02%
As 188.979†	-0.7	-0.00043	mg/L	0.002074	-0.00043	mg/L	0.002074	485.90%
B 249.677†	26.5	0.00366	mg/L	0.000208	0.00366	mg/L	0.000208	5.67%
Ba 233.527†	2.4	0.00057	mg/L	0.001001	0.00057	mg/L	0.001001	175.19%
Be 313.042†	141.6	0.00023	mg/L	0.000034	0.00023	mg/L	0.000034	14.72%
Ca 317.933†	4.4	0.00033	mg/L	0.000720	0.00033	mg/L	0.000720	216.24%
Cd 228.802†	-5.0	-0.00017	mg/L	0.000088	-0.00017	mg/L	0.000088	52.83%
Co 228.616†	1.8	0.00006	mg/L	0.000096	0.00006	mg/L	0.000096	172.36%
Cr 267.716†	3.4	0.00057	mg/L	0.000755	0.00057	mg/L	0.000755	133.59%
Cu 324.752†	-35.4	-0.00015	mg/L	0.000117	-0.00015	mg/L	0.000117	80.41%
Fe 273.955†	3.5	0.00267	mg/L	0.000912	0.00267	mg/L	0.000912	34.20%
K 766.490†	-26.7	-0.01399	mg/L	0.011391	-0.01399	mg/L	0.011391	81.44%
Mg 279.077†	3.7	0.00273	mg/L	0.003165	0.00273	mg/L	0.003165	116.01%
Mn 257.610†	7.9	0.00022	mg/L	0.000068	0.00022	mg/L	0.000068	30.52%
Mo 202.031†	34.6	0.00180	mg/L	0.000201	0.00180	mg/L	0.000201	11.20%
Na 589.592†	117.5	0.01006	mg/L	0.003961	0.01006	mg/L	0.003961	39.36%
Na 330.237†	-1.4	-0.05180	mg/L	0.208199	-0.05180	mg/L	0.208199	401.96%
Ni 231.604†	4.3	0.00115	mg/L	0.001232	0.00115	mg/L	0.001232	107.11%
Pb 220.353†	8.8	0.00118	mg/L	0.000908	0.00118	mg/L	0.000908	77.23%
Sb 206.836†	8.7	0.00277	mg/L	0.000687	0.00277	mg/L	0.000687	24.82%
Se 196.026†	-3.6	-0.00264	mg/L	0.001056	-0.00264	mg/L	0.001056	40.02%
Si 288.158†	4.0	0.00194	mg/L	0.003470	0.00194	mg/L	0.003470	178.63%
Sn 189.927†	-0.1	-0.00002	mg/L	0.000887	-0.00002	mg/L	0.000887	>999.9%
Sr 421.552†	183.2	0.00021	mg/L	0.000024	0.00021	mg/L	0.000024	11.19%
Ti 334.903†	-7.2	-0.00035	mg/L	0.000565	-0.00035	mg/L	0.000565	162.26%
Tl 190.801†	-5.0	-0.00217	mg/L	0.002699	-0.00217	mg/L	0.002699	124.46%
V 292.402†	21.6	0.00018	mg/L	0.000130	0.00018	mg/L	0.000130	70.94%
Zn 206.200†	0.7	0.00020	mg/L	0.000715	0.00020	mg/L	0.000715	350.47%

Sequence No.: 3
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/19/2012 10:02:17 AM
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	2414763.0	101.3	%	0.52				0.51%
ScR 361.383	308434.4	101.0	%	0.71				0.71%
Ag 328.068†	453.0	0.00281	mg/L	0.000092	0.00281	mg/L	0.000092	3.27%
Al 308.215†	85.7	0.05113	mg/L	0.003000	0.05113	mg/L	0.003000	5.87%
As 188.979†	88.5	0.05250	mg/L	0.001896	0.05250	mg/L	0.001896	3.61%
B 249.677†	166.3	0.02295	mg/L	0.000656	0.02295	mg/L	0.000656	2.86%
Ba 233.527†	12.8	0.00303	mg/L	0.001323	0.00303	mg/L	0.001323	43.60%
Be 313.042†	620.9	0.00100	mg/L	0.000041	0.00100	mg/L	0.000041	4.10%
Ca 317.933†	662.6	0.04982	mg/L	0.000350	0.04982	mg/L	0.000350	0.70%
Cd 228.802†	64.8	0.00188	mg/L	0.000029	0.00188	mg/L	0.000029	1.55%
Co 228.616†	118.9	0.00353	mg/L	0.000124	0.00353	mg/L	0.000124	3.50%
Cr 267.716†	34.9	0.00587	mg/L	0.000382	0.00587	mg/L	0.000382	6.50%
Cu 324.752†	413.8	0.00169	mg/L	0.000143	0.00169	mg/L	0.000143	8.46%
Fe 273.955†	71.0	0.05410	mg/L	0.000888	0.05410	mg/L	0.000888	1.64%
K 766.490†	903.4	0.4735	mg/L	0.00213	0.4735	mg/L	0.00213	0.45%
Mg 279.077†	65.4	0.04810	mg/L	0.002890	0.04810	mg/L	0.002890	6.01%
Mn 257.610†	44.8	0.00126	mg/L	0.000095	0.00126	mg/L	0.000095	7.53%
Mo 202.031†	109.3	0.00568	mg/L	0.000156	0.00568	mg/L	0.000156	2.75%
Na 589.592†	5784.7	0.4956	mg/L	0.00844	0.4956	mg/L	0.00844	1.70%
Na 330.237†	14.2	0.5045	mg/L	0.11668	0.5045	mg/L	0.11668	23.13%
Ni 231.604†	44.0	0.01177	mg/L	0.000511	0.01177	mg/L	0.000511	4.35%
Pb 220.353†	148.2	0.01987	mg/L	0.000695	0.01987	mg/L	0.000695	3.50%
Sb 206.836†	159.1	0.05070	mg/L	0.001794	0.05070	mg/L	0.001794	3.54%
Se 196.026†	69.5	0.05144	mg/L	0.000679	0.05144	mg/L	0.000679	1.32%
Si 288.158†	129.5	0.06213	mg/L	0.003913	0.06213	mg/L	0.003913	6.30%
Sn 189.927†	38.9	0.01048	mg/L	0.000696	0.01048	mg/L	0.000696	6.64%
Sr 421.552†	938.1	0.00110	mg/L	0.000049	0.00110	mg/L	0.000049	4.42%
Ti 334.903†	98.5	0.00474	mg/L	0.000533	0.00474	mg/L	0.000533	11.26%
Tl 190.801†	112.2	0.04907	mg/L	0.000908	0.04907	mg/L	0.000908	1.85%
V 292.402†	358.9	0.00301	mg/L	0.000185	0.00301	mg/L	0.000185	6.16%
Zn 206.200†	34.3	0.00958	mg/L	0.000747	0.00958	mg/L	0.000747	7.80%

Sequence No.: 4
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/19/2012 10:06:33 AM
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	2359704.1	98.95	%	0.735				0.74%
ScR 361.383	303340.2	99.33	%	1.221				1.23%
Ag 328.068†	-175.2	-0.00108	mg/L	0.000318	-0.00108	mg/L	0.000318	29.35%
Al 308.215†	331992.4	198.7	mg/L	2.22	198.7	mg/L	2.22	1.12%
As 188.979†	36.8	0.01625	mg/L	0.003604	0.01625	mg/L	0.003604	22.18%
B 249.677†	0.0	0.00000	mg/L	0.002319	0.00000	mg/L	0.002319	>999.9%
Ba 233.527†	128.3	-0.00132	mg/L	0.000591	-0.00132	mg/L	0.000591	44.79%
Be 313.042†	93.6	0.00015	mg/L	0.000032	0.00015	mg/L	0.000032	21.75%
Ca 317.933†	1305604.9	98.16	mg/L	1.280	98.16	mg/L	1.280	1.30%
Cd 228.802†	56.2	-0.00008	mg/L	0.000066	-0.00008	mg/L	0.000066	87.36%
Co 228.616†	68.2	-0.00052	mg/L	0.000126	-0.00052	mg/L	0.000126	24.26%
Cr 267.716†	10.7	-0.00029	mg/L	0.000599	-0.00029	mg/L	0.000599	203.40%
Cu 324.752†	-2067.2	-0.00067	mg/L	0.000044	-0.00067	mg/L	0.000044	6.50%
Fe 273.955†	256097.1	195.1	mg/L	2.63	195.1	mg/L	2.63	1.35%
K 766.490†	8.2	0.00428	mg/L	0.015665	0.00428	mg/L	0.015665	365.86%
Mg 279.077†	139595.8	102.5	mg/L	1.77	102.5	mg/L	1.77	1.72%
Mn 257.610†	44.2	0.00120	mg/L	0.000213	0.00120	mg/L	0.000213	17.74%
Mo 202.031†	46.5	0.00136	mg/L	0.000503	0.00136	mg/L	0.000503	37.08%
Na 589.592†	196.0	0.01679	mg/L	0.002658	0.01679	mg/L	0.002658	15.83%
Na 330.237†	-13.9	-0.4969	mg/L	0.09031	-0.4969	mg/L	0.09031	18.17%
Ni 231.604†	3.4	0.00092	mg/L	0.001526	0.00092	mg/L	0.001526	165.36%
Pb 220.353†	-277.9	0.00230	mg/L	0.000204	0.00230	mg/L	0.000204	8.86%
Sb 206.836†	25.1	0.00785	mg/L	0.000754	0.00785	mg/L	0.000754	9.61%
Se 196.026†	18.3	0.01355	mg/L	0.003461	0.01355	mg/L	0.003461	25.54%
Si 288.158†	-29.2	-0.00162	mg/L	0.000647	-0.00162	mg/L	0.000647	39.83%
Sn 189.927†	-66.2	-0.00563	mg/L	0.001628	-0.00563	mg/L	0.001628	28.93%
Sr 421.552†	3479.7	0.00407	mg/L Cont.	0.000068	0.00407	mg/L	0.000068	1.68%
Ti 334.903†	124.9	0.00133	mg/L	0.000082	0.00133	mg/L	0.000082	6.16%
Tl 190.801†	-60.4	-0.00563	mg/L	0.003080	-0.00563	mg/L	0.003080	54.75%
V 292.402†	1559.2	0.00616	mg/L	0.000082	0.00616	mg/L	0.000082	1.34%
Zn 206.200†	13.2	0.00370	mg/L	0.000491	0.00370	mg/L	0.000491	13.26%

Sequence No.: 5
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/19/2012 10:10:49 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	220.0 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	2377996.8	99.72	%	0.146				0.15%
ScR 361.383	304156.7	99.60	%	2.577				2.59%
Ag 328.068†	162910.9	1.012	mg/L	0.0009	1.012	mg/L	0.0009	0.09%
Al 308.215†	330603.2	197.9	mg/L	4.71	197.9	mg/L	4.71	2.38%
As 188.979†	1776.4	1.045	mg/L	0.0027	1.045	mg/L	0.0027	0.26%
B 249.677†	7.3	-0.00105	mg/L	0.000749	-0.00105	mg/L	0.000749	71.25%
Ba 233.527†	4344.4	1.004	mg/L	0.0219	1.004	mg/L	0.0219	2.18%
Be 313.042†	619134.8	1.003	mg/L	0.0222	1.003	mg/L	0.0222	2.22%
Ca 317.933†	1317804.0	99.08	mg/L	2.372	99.08	mg/L	2.372	2.39%
Cd 228.802†	30428.9	1.034	mg/L	0.0039	1.034	mg/L	0.0039	0.37%
Co 228.616†	33646.2	0.9994	mg/L	0.00303	0.9994	mg/L	0.00303	0.30%
Cr 267.716†	6086.3	1.022	mg/L	0.0211	1.022	mg/L	0.0211	2.07%
Cu 324.752†	250009.1	1.028	mg/L	0.0013	1.028	mg/L	0.0013	0.12%
Fe 273.955†	258234.7	196.7	mg/L	4.72	196.7	mg/L	4.72	2.40%
K 766.490†	-106.0	-0.05557	mg/L	0.020398	-0.05557	mg/L	0.020398	36.71%
Mg 279.077†	134928.3	99.07	mg/L	2.335	99.07	mg/L	2.335	2.36%
Mn 257.610†	35090.5	0.9818	mg/L	0.02400	0.9818	mg/L	0.02400	2.44%
Mo 202.031†	46.1	0.00127	mg/L	0.000058	0.00127	mg/L	0.000058	4.53%
Na 589.592†	363.3	0.03113	mg/L	0.000366	0.03113	mg/L	0.000366	1.17%
Na 330.237†	-4.0	-0.4659	mg/L	0.18631	-0.4659	mg/L	0.18631	39.99%
Ni 231.604†	3662.8	0.9799	mg/L	0.02300	0.9799	mg/L	0.02300	2.35%
Pb 220.353†	7113.0	0.9927	mg/L	0.00414	0.9927	mg/L	0.00414	0.42%
Sb 206.836†	3221.0	1.015	mg/L	0.0033	1.015	mg/L	0.0033	0.33%
Se 196.026†	1390.0	1.028	mg/L	0.0089	1.028	mg/L	0.0089	0.86%
Si 288.158†	-30.4	0.00114	mg/L	0.002664	0.00114	mg/L	0.002664	232.89%
Sn 189.927†	-68.9	-0.00574	mg/L	0.001991	-0.00574	mg/L	0.001991	34.69%
Sr 421.552†	3461.0	0.00405	mg/L Conf.	0.000089	0.00405	mg/L	0.000089	2.19%
Ti 334.903†	120.3	0.00086	mg/L	0.000118	0.00086	mg/L	0.000118	13.71%
Tl 190.801†	2122.3	0.9400	mg/L	0.00600	0.9400	mg/L	0.00600	0.64%
V 292.402†	118508.2	0.9834	mg/L	0.00121	0.9834	mg/L	0.00121	0.12%
Zn 206.200†	3520.2	0.9845	mg/L	0.02170	0.9845	mg/L	0.02170	2.20%

Sequence No.: 6
Sample ID: Hi Pur QC 7
Analyst: BA
Dilution: 1.000000X

Remake

Autosampler Location: 304
Date Collected: 11/19/2012 10:15:40 AM
Data Type: Original

Nebulizer Parameters: Hi Pur QC 7

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: Hi Pur QC 7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2424498.0	101.7	%	0.86				0.85%
ScR 361.383	312541.4	102.3	%	0.07				0.07%
Ag 328.068†	208567.7	1.295	mg/L	0.0037	1.295	mg/L	0.0037	0.29%
Al 308.215†	4310.3	2.580	mg/L	0.0244	2.580	mg/L	0.0244	0.95%
As 188.979†	-0.8	-0.00051	mg/L	0.000921	-0.00051	mg/L	0.000921	180.53%
B 249.677†	18525.1	2.557	mg/L	0.0365	2.557	mg/L	0.0365	1.43%
Ba 233.527†	10864.3	2.592	mg/L	0.0290	2.592	mg/L	0.0290	1.12%
Be 313.042†	57.3	0.00009	mg/L	0.000025	0.00009	mg/L	0.000025	27.38%
Ca 317.933†	357.2	0.02685	mg/L	0.001267	0.02685	mg/L	0.001267	4.72%
Cd 228.802†	-1.5	-0.00005	mg/L	0.000062	-0.00005	mg/L	0.000062	130.25%
Co 228.616†	17.2	0.00031	mg/L	0.000227	0.00031	mg/L	0.000227	73.42%
Cr 267.716†	-0.0	-0.00001	mg/L	0.000581	-0.00001	mg/L	0.000581	>999.9%
Cu 324.752†	-41.1	-0.00017	mg/L	0.000063	-0.00017	mg/L	0.000063	38.00%
Fe 273.955†	35.0	0.02667	mg/L	0.005058	0.02667	mg/L	0.005058	18.96%
K 766.490†	48791.5	25.58	mg/L	0.088	25.58	mg/L	0.088	0.34%
Mg 279.077†	14.1	0.01035	mg/L	0.010393	0.01035	mg/L	0.010393	100.44%
Mn 257.610†	10.4	0.00028	mg/L	0.000098	0.00028	mg/L	0.000098	35.47%
Mo 202.031†	2.6	0.00013	mg/L	0.000259	0.00013	mg/L	0.000259	194.75%
Na 589.592†	30290.9	2.595	mg/L	0.0085	2.595	mg/L	0.0085	0.33%
Na 330.237†	66.4	2.377	mg/L	0.0213	2.377	mg/L	0.0213	0.90%
Ni 231.604†	4.2	0.00114	mg/L	0.001567	0.00114	mg/L	0.001567	137.96%
Pb 220.353†	27.6	0.00432	mg/L	0.000942	0.00432	mg/L	0.000942	21.83%
Sb 206.836†	3.9	0.00123	mg/L	0.001290	0.00123	mg/L	0.001290	104.60%
Se 196.026†	-0.4	-0.00031	mg/L	0.001147	-0.00031	mg/L	0.001147	367.23%
Si 288.158†	5313.5	2.550	mg/L	0.0299	2.550	mg/L	0.0299	1.17%
Sn 189.927†	0.4	0.00011	mg/L	0.000460	0.00011	mg/L	0.000460	416.29%
Sr 421.552†	94.0	0.00011	mg/L	0.000006	0.00011	mg/L	0.000006	5.22%
Ti 334.903†	-11.4	-0.00055	mg/L	0.000872	-0.00055	mg/L	0.000872	158.90%
Tl 190.801†	-3.4	-0.00149	mg/L	0.000687	-0.00149	mg/L	0.000687	46.23%
V 292.402†	17.5	0.00014	mg/L	0.000049	0.00014	mg/L	0.000049	33.88%
Zn 206.200†	-0.6	-0.00017	mg/L	0.000868	-0.00017	mg/L	0.000868	503.56%

Sequence No.: 7
Sample ID: Spex QC 21
Analyst: BA
Dilution: 1.000000X

Remake

Autosampler Location: 305
Date Collected: 11/19/2012 10:19:54 AM
Data Type: Original

Nebulizer Parameters: Spex QC 21

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Spex QC 21

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2431765.6	102.0	%	0.53				0.52%
ScR 361.383	309438.0	101.3	%	0.95				0.94%
Ag 328.068†	-96.7	0.00009	mg/L	0.000167	0.00009	mg/L	0.000167	179.08%
Al 308.215†	161.4	0.01643	mg/L	0.004038	0.01643	mg/L	0.004038	24.57%
As 188.979†	4000.9	2.425	mg/L	0.0243	2.425	mg/L	0.0243	1.00%
B 249.677†	66.8	0.00699	mg/L	0.000671	0.00699	mg/L	0.000671	9.60%
Ba 233.527†	6.1	0.00070	mg/L	0.000743	0.00070	mg/L	0.000743	105.41%
Be 313.042†	1457831.5	2.361	mg/L	0.0134	2.361	mg/L	0.0134	0.57%
Ca 317.933†	31103.9	2.339	mg/L	0.0336	2.339	mg/L	0.0336	1.44%
Cd 228.802†	71963.9	2.451	mg/L	0.0206	2.451	mg/L	0.0206	0.84%
Co 228.616†	81359.8	2.419	mg/L	0.0230	2.419	mg/L	0.0230	0.95%
Cr 267.716†	14084.9	2.369	mg/L	0.0340	2.369	mg/L	0.0340	1.44%
Cu 324.752†	573687.8	2.340	mg/L	0.0065	2.340	mg/L	0.0065	0.28%
Fe 273.955†	3260.2	2.466	mg/L	0.0144	2.466	mg/L	0.0144	0.58%
K 766.490†	-61.3	-0.03212	mg/L	0.013000	-0.03212	mg/L	0.013000	40.47%
Mg 279.077†	3294.5	2.439	mg/L	0.0178	2.439	mg/L	0.0178	0.73%
Mn 257.610†	85504.4	2.392	mg/L	0.0373	2.392	mg/L	0.0373	1.56%
Mo 202.031†	44495.0	2.313	mg/L	0.0240	2.313	mg/L	0.0240	1.04%
Na 589.592†	208.0	0.01782	mg/L	0.002378	0.01782	mg/L	0.002378	13.35%
Na 330.237†	-18.4	-0.9440	mg/L	0.10612	-0.9440	mg/L	0.10612	11.24%
Ni 231.604†	8962.3	2.398	mg/L	0.0176	2.398	mg/L	0.0176	0.73%
Pb 220.353†	17575.3	2.356	mg/L	0.0271	2.356	mg/L	0.0271	1.15%
Sb 206.836†	7809.7	2.464	mg/L	0.0226	2.464	mg/L	0.0226	0.92%
Se 196.026†	3259.8	2.411	mg/L	0.0191	2.411	mg/L	0.0191	0.79%
Si 288.158†	108.6	0.06510	mg/L	0.012122	0.06510	mg/L	0.012122	18.62%
Sn 189.927†	-14.4	-0.00204	mg/L	0.000369	-0.00204	mg/L	0.000369	18.13%
Sr 421.552†	2023500.0	2.366	mg/L	0.0147	2.366	mg/L	0.0147	0.62%
Ti 334.903†	47867.5	2.303	mg/L	0.0356	2.303	mg/L	0.0356	1.54%
Tl 190.801†	5541.3	2.404	mg/L	0.0165	2.404	mg/L	0.0165	0.68%
V 292.402†	289064.1	2.415	mg/L	0.0195	2.415	mg/L	0.0195	0.81%
Zn 206.200†	8795.5	2.459	mg/L	0.0117	2.459	mg/L	0.0117	0.48%

Sequence No.: 8
Sample ID: DI Check
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 306
Date Collected: 11/19/2012 10:24:10 AM
Data Type: Original

Nebulizer Parameters: DI Check

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: DI Check

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2489832.6	104.4	%	1.38				1.33%
ScR 361.383	315297.5	103.2	%	0.73				0.70%
Ag 328.068†	-18.1	-0.00011	mg/L	0.000036	-0.00011	mg/L	0.000036	31.68%
Al 308.215†	21.0	0.01255	mg/L	0.016007	0.01255	mg/L	0.016007	127.59%
As 188.979†	2.2	0.00125	mg/L	0.001728	0.00125	mg/L	0.001728	138.79%
B 249.677†	13.7	0.00189	mg/L	0.000783	0.00189	mg/L	0.000783	41.48%
Ba 233.527†	0.9	0.00020	mg/L	0.001139	0.00020	mg/L	0.001139	563.21%
Be 313.042†	308.4	0.00050	mg/L	0.000127	0.00050	mg/L	0.000127	25.47%
Ca 317.933†	82.8	0.00623	mg/L	0.000267	0.00623	mg/L	0.000267	4.29%
Cd 228.802†	0.1	-0.00000	mg/L	0.000170	-0.00000	mg/L	0.000170	>999.9%
Co 228.616†	21.1	0.00063	mg/L	0.000166	0.00063	mg/L	0.000166	26.38%
Cr 267.716†	6.2	0.00104	mg/L	0.001036	0.00104	mg/L	0.001036	99.58%
Cu 324.752†	-85.8	-0.00035	mg/L	0.000221	-0.00035	mg/L	0.000221	63.13%
Fe 273.955†	25.7	0.01957	mg/L	0.001812	0.01957	mg/L	0.001812	9.26%
K 766.490†	-28.6	-0.01497	mg/L	0.004562	-0.01497	mg/L	0.004562	30.48%
Mg 279.077†	10.8	0.00797	mg/L	0.003446	0.00797	mg/L	0.003446	43.22%
Mn 257.610†	18.7	0.00052	mg/L	0.000168	0.00052	mg/L	0.000168	32.00%
Mo 202.031†	51.8	0.00269	mg/L	0.000390	0.00269	mg/L	0.000390	14.51%
Na 589.592†	78.5	0.00673	mg/L	0.001426	0.00673	mg/L	0.001426	21.19%
Na 330.237†	-15.6	-0.5568	mg/L	0.34016	-0.5568	mg/L	0.34016	61.09%
Ni 231.604†	10.2	0.00273	mg/L	0.001323	0.00273	mg/L	0.001323	48.40%
Pb 220.353†	0.2	0.00003	mg/L	0.001284	0.00003	mg/L	0.001284	>999.9%
Sb 206.836†	-9.5	-0.00304	mg/L	0.000435	-0.00304	mg/L	0.000435	14.29%
Se 196.026†	7.6	0.00564	mg/L	0.003716	0.00564	mg/L	0.003716	65.93%
Si 288.158†	-11.8	-0.00566	mg/L	0.004228	-0.00566	mg/L	0.004228	74.74%
Sn 189.927†	-0.7	-0.00019	mg/L	0.000201	-0.00019	mg/L	0.000201	104.69%
Sr 421.552†	389.8	0.00046	mg/L	0.000158	0.00046	mg/L	0.000158	34.69%
Ti 334.903†	-16.8	-0.00081	mg/L	0.000330	-0.00081	mg/L	0.000330	40.70%
Tl 190.801†	2.6	0.00114	mg/L	0.002664	0.00114	mg/L	0.002664	234.64%
V 292.402†	32.2	0.00027	mg/L	0.000219	0.00027	mg/L	0.000219	80.11%
Zn 206.200†	1.2	0.00033	mg/L	0.000327	0.00033	mg/L	0.000327	100.39%

Sequence No.: 9
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 10:28:24 AM
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	2415049.7	101.3	%	0.35				0.34%
ScR 361.383	307253.5	100.6	%	2.29				2.28%
Ag 328.068†	167155.7	1.038	mg/L	0.0053	1.038	mg/L	0.0053	0.51%
Al 308.215†	3409.7	2.006	mg/L	0.0284	2.006	mg/L	0.0284	1.42%
As 188.979†	3462.2	2.075	mg/L	0.0071	2.075	mg/L	0.0071	0.34%
B 249.677†	7228.7	0.9967	mg/L	0.01431	0.9967	mg/L	0.01431	1.44%
Ba 233.527†	4219.9	1.006	mg/L	0.0162	1.006	mg/L	0.0162	1.61%
Be 313.042†	618170.2	1.001	mg/L	0.0243	1.001	mg/L	0.0243	2.42%
Ca 317.933†	27108.2	2.038	mg/L	0.0333	2.038	mg/L	0.0333	1.63%
Cd 228.802†	30982.2	1.049	mg/L	0.0043	1.049	mg/L	0.0043	0.41%
Co 228.616†	34173.5	1.016	mg/L	0.0067	1.016	mg/L	0.0067	0.66%
Cr 267.716†	6051.8	1.018	mg/L	0.0129	1.018	mg/L	0.0129	1.27%
Cu 324.752†	246565.6	1.006	mg/L	0.0014	1.006	mg/L	0.0014	0.14%
Fe 273.955†	2716.4	2.062	mg/L	0.0328	2.062	mg/L	0.0328	1.59%
K 766.490†	37978.8	19.91	mg/L	0.552	19.91	mg/L	0.552	2.77%
Mg 279.077†	2730.2	2.014	mg/L	0.0256	2.014	mg/L	0.0256	1.27%
Mn 257.610†	37011.1	1.036	mg/L	0.0161	1.036	mg/L	0.0161	1.55%
Mo 202.031†	19193.0	0.9976	mg/L	0.00316	0.9976	mg/L	0.00316	0.32%
Na 589.592†	594418.9	50.93	mg/L	1.140	50.93	mg/L	1.140	2.24%
Na 330.237†	1437.8	51.33	mg/L	0.483	51.33	mg/L	0.483	0.94%
Ni 231.604†	3757.9	1.005	mg/L	0.0103	1.005	mg/L	0.0103	1.03%
Pb 220.353†	15223.7	2.040	mg/L	0.0098	2.040	mg/L	0.0098	0.48%
Sb 206.836†	6634.1	2.113	mg/L	0.0096	2.113	mg/L	0.0096	0.45%
Se 196.026†	2757.3	2.040	mg/L	0.0139	2.040	mg/L	0.0139	0.68%
Si 288.158†	4221.9	2.025	mg/L	0.0285	2.025	mg/L	0.0285	1.41%
Sn 189.927†	3784.8	1.018	mg/L	0.0056	1.018	mg/L	0.0056	0.55%
Sr 421.552†	861351.8	1.007	mg/L	0.0248	1.007	mg/L	0.0248	2.46%
Ti 334.903†	21314.8	1.025	mg/L	0.0138	1.025	mg/L	0.0138	1.34%
Tl 190.801†	4612.5	2.009	mg/L	0.0060	2.009	mg/L	0.0060	0.30%
V 292.402†	123959.1	1.035	mg/L	0.0043	1.035	mg/L	0.0043	0.42%
Zn 206.200†	3755.8	1.050	mg/L	0.0179	1.050	mg/L	0.0179	1.71%

Sequence No.: 10
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 10:32:45 AM
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	2426216.9	101.7	%	0.75				0.74%
ScR 361.383	311466.8	102.0	%	0.47				0.46%
Ag 328.068†	-9.7	-0.00006	mg/L	0.000025	-0.00006	mg/L	0.000025	40.93%
Al 308.215†	17.1	0.01021	mg/L	0.005126	0.01021	mg/L	0.005126	50.23%
As 188.979†	1.6	0.00093	mg/L	0.001375	0.00093	mg/L	0.001375	148.54%
B 249.677†	13.8	0.00190	mg/L	0.000116	0.00190	mg/L	0.000116	6.10%
Ba 233.527†	-1.0	-0.00023	mg/L	0.000227	-0.00023	mg/L	0.000227	97.02%
Be 313.042†	125.9	0.00020	mg/L	0.000059	0.00020	mg/L	0.000059	29.01%
Ca 317.933†	37.9	0.00285	mg/L	0.001086	0.00285	mg/L	0.001086	38.07%
Cd 228.802†	-4.2	-0.00015	mg/L	0.000155	-0.00015	mg/L	0.000155	104.38%
Co 228.616†	8.4	0.00025	mg/L	0.000054	0.00025	mg/L	0.000054	21.57%
Cr 267.716†	-0.3	-0.00004	mg/L	0.000791	-0.00004	mg/L	0.000791	>999.9%
Cu 324.752†	-73.5	-0.00030	mg/L	0.000089	-0.00030	mg/L	0.000089	29.60%
Fe 273.955†	11.6	0.00887	mg/L	0.001476	0.00887	mg/L	0.001476	16.65%
K 766.490†	-21.0	-0.01100	mg/L	0.011515	-0.01100	mg/L	0.011515	104.70%
Mg 279.077†	-3.7	-0.00269	mg/L	0.003999	-0.00269	mg/L	0.003999	148.62%
Mn 257.610†	7.5	0.00021	mg/L	0.000067	0.00021	mg/L	0.000067	31.92%
Mo 202.031†	19.4	0.00101	mg/L	0.000135	0.00101	mg/L	0.000135	13.43%
Na 589.592†	74.7	0.00640	mg/L	0.002642	0.00640	mg/L	0.002642	41.27%
Na 330.237†	-7.3	-0.2612	mg/L	0.14059	-0.2612	mg/L	0.14059	53.82%
Ni 231.604†	2.4	0.00064	mg/L	0.000287	0.00064	mg/L	0.000287	44.94%
Pb 220.353†	8.9	0.00119	mg/L	0.000146	0.00119	mg/L	0.000146	12.27%
Sb 206.836†	5.0	0.00160	mg/L	0.001285	0.00160	mg/L	0.001285	80.26%
Se 196.026†	-2.6	-0.00189	mg/L	0.001726	-0.00189	mg/L	0.001726	91.37%
Si 288.158†	5.7	0.00276	mg/L	0.002314	0.00276	mg/L	0.002314	83.98%
Sn 189.927†	-1.0	-0.00027	mg/L	0.000874	-0.00027	mg/L	0.000874	325.78%
Sr 421.552†	172.9	0.00020	mg/L	0.000073	0.00020	mg/L	0.000073	36.35%
Ti 334.903†	-25.6	-0.00124	mg/L	0.000409	-0.00124	mg/L	0.000409	33.15%
Tl 190.801†	-0.8	-0.00036	mg/L	0.001846	-0.00036	mg/L	0.001846	505.88%
V 292.402†	-7.0	-0.00006	mg/L	0.000107	-0.00006	mg/L	0.000107	185.56%
Zn 206.200†	1.8	0.00050	mg/L	0.000458	0.00050	mg/L	0.000458	91.11%

Analysis Begun

Start Time: 11/19/2012 10:52:53 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1119.sif
Batch ID:
Results Data Set: I2121119
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Hi Pur QC 7
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 304
Date Collected: 11/19/2012 10:52:54 AM
Data Type: Original

Nebulizer Parameters: Hi Pur QC 7

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Hi Pur QC 7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2483769.8	104.2	%	0.22				0.22%
ScR 361.383	319547.4	104.6	%	0.60				0.57%
Ag 328.068†	155660.1	0.9665	mg/L	0.00395	0.9665	mg/L	0.00395	0.41%
Al 308.215†	3215.6	1.925	mg/L	0.0086	1.925	mg/L	0.0086	0.45%
As 188.979†	5.3	0.00313	mg/L	0.003290	0.00313	mg/L	0.003290	105.18%
B 249.677†	13989.4	1.931	mg/L	0.0016	1.931	mg/L	0.0016	0.08%
Ba 233.527†	8121.1	1.938	mg/L	0.0029	1.938	mg/L	0.0029	0.15%
Be 313.042†	-10.4	-0.00002	mg/L	0.000024	-0.00002	mg/L	0.000024	143.38%
Ca 317.933†	53.7	0.00404	mg/L	0.000240	0.00404	mg/L	0.000240	5.94%
Cd 228.802†	-9.2	-0.00033	mg/L	0.000087	-0.00033	mg/L	0.000087	26.09%
Co 228.616†	11.3	0.00018	mg/L	0.000148	0.00018	mg/L	0.000148	79.79%
Cr 267.716†	6.0	0.00100	mg/L	0.000339	0.00100	mg/L	0.000339	33.81%
Cu 324.752†	-176.9	-0.00072	mg/L	0.000120	-0.00072	mg/L	0.000120	16.68%
Fe 273.955†	0.6	0.00045	mg/L	0.001301	0.00045	mg/L	0.001301	287.02%
K 766.490†	36581.4	19.18	mg/L	0.176	19.18	mg/L	0.176	0.92%
Mg 279.077†	-9.5	-0.00701	mg/L	0.003991	-0.00701	mg/L	0.003991	56.90%
Mn 257.610†	1.9	0.00004	mg/L	0.000042	0.00004	mg/L	0.000042	98.40%
Mo 202.031†	4.5	0.00023	mg/L	0.000273	0.00023	mg/L	0.000273	116.67%
Na 589.592†	22517.4	1.929	mg/L	0.0160	1.929	mg/L	0.0160	0.83%
Na 330.237†	54.9	1.966	mg/L	0.3855	1.966	mg/L	0.3855	19.61%
Ni 231.604†	7.3	0.00194	mg/L	0.000750	0.00194	mg/L	0.000750	38.55%
Pb 220.353†	-2.5	0.00013	mg/L	0.000857	0.00013	mg/L	0.000857	668.80%
Sb 206.836†	-3.8	-0.00121	mg/L	0.001012	-0.00121	mg/L	0.001012	83.45%
Se 196.026†	-5.3	-0.00393	mg/L	0.002487	-0.00393	mg/L	0.002487	63.28%
Si 288.158†	4013.0	1.926	mg/L	0.0022	1.926	mg/L	0.0022	0.11%
Sn 189.927†	0.1	0.00001	mg/L	0.000448	0.00001	mg/L	0.000448	>999.9%
Sr 421.552†	12.3	0.00001	mg/L	0.000048	0.00001	mg/L	0.000048	329.84%
Ti 334.903†	-17.3	-0.00083	mg/L	0.000367	-0.00083	mg/L	0.000367	44.13%
Tl 190.801†	1.6	0.00068	mg/L	0.001566	0.00068	mg/L	0.001566	228.64%
V 292.402†	6.7	0.00006	mg/L	0.000304	0.00006	mg/L	0.000304	501.07%
Zn 206.200†	-5.6	-0.00157	mg/L	0.000380	-0.00157	mg/L	0.000380	24.26%

Sequence No.: 2
Sample ID: Spex QC 21
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 305
Date Collected: 11/19/2012 10:57:11 AM
Data Type: Original

Nebulizer Parameters: Spex QC 21

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Spex QC 21

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2452986.4	102.9	%	0.56				0.54%
ScR 361.383	314615.0	103.0	%	0.62				0.60%
Ag 328.068†	-52.4	0.00026	mg/L	0.000076	0.00026	mg/L	0.000076	29.89%
Al 308.215†	115.7	0.00197	mg/L	0.003696	0.00197	mg/L	0.003696	187.55%
As 188.979†	3364.2	2.039	mg/L	0.0030	2.039	mg/L	0.0030	0.15%
B 249.677†	99.4	0.01185	mg/L	0.001643	0.01185	mg/L	0.001643	13.87%
Ba 233.527†	5.6	0.00073	mg/L	0.001174	0.00073	mg/L	0.001174	161.57%
Be 313.042†	1222877.7	1.980	mg/L	0.0110	1.980	mg/L	0.0110	0.56%
Ca 317.933†	26301.5	1.977	mg/L	0.0101	1.977	mg/L	0.0101	0.51%
Cd 228.802†	60415.4	2.058	mg/L	0.0192	2.058	mg/L	0.0192	0.94%
Co 228.616†	68299.7	2.031	mg/L	0.0209	2.031	mg/L	0.0209	1.03%
Cr 267.716†	12428.8	2.090	mg/L	0.0163	2.090	mg/L	0.0163	0.78%
Cu 324.752†	478278.6	1.951	mg/L	0.0048	1.951	mg/L	0.0048	0.25%
Fe 273.955†	2732.7	2.067	mg/L	0.0174	2.067	mg/L	0.0174	0.84%
K 766.490†	-30.0	-0.01573	mg/L	0.011402	-0.01573	mg/L	0.011402	72.48%
Mg 279.077†	2759.5	2.043	mg/L	0.0274	2.043	mg/L	0.0274	1.34%
Mn 257.610†	72643.7	2.032	mg/L	0.0100	2.032	mg/L	0.0100	0.49%
Mo 202.031†	37338.2	1.941	mg/L	0.0188	1.941	mg/L	0.0188	0.97%
Na 589.592†	443.1	0.03797	mg/L	0.001491	0.03797	mg/L	0.001491	3.93%
Na 330.237†	-18.3	-0.8888	mg/L	0.02686	-0.8888	mg/L	0.02686	3.02%
Ni 231.604†	7544.1	2.018	mg/L	0.0178	2.018	mg/L	0.0178	0.88%
Pb 220.353†	14707.9	1.972	mg/L	0.0181	1.972	mg/L	0.0181	0.92%
Sb 206.836†	6558.2	2.068	mg/L	0.0037	2.068	mg/L	0.0037	0.18%
Se 196.026†	2726.4	2.016	mg/L	0.0052	2.016	mg/L	0.0052	0.26%
Si 288.158†	77.7	0.04819	mg/L	0.002390	0.04819	mg/L	0.002390	4.96%
Sn 189.927†	-11.8	-0.00163	mg/L	0.000782	-0.00163	mg/L	0.000782	47.98%
Sr 421.552†	1706516.7	1.995	mg/L	0.0140	1.995	mg/L	0.0140	0.70%
Ti 334.903†	40662.7	1.956	mg/L	0.0093	1.956	mg/L	0.0093	0.47%
Tl 190.801†	4653.2	2.019	mg/L	0.0036	2.019	mg/L	0.0036	0.18%
V 292.402†	242286.4	2.024	mg/L	0.0227	2.024	mg/L	0.0227	1.12%
Zn 206.200†	7393.0	2.067	mg/L	0.0229	2.067	mg/L	0.0229	1.11%

Sequence No.: 3
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 11:01:27 AM
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	2445420.3	102.5	%	0.53				0.52%
ScR 361.383	314698.9	103.1	%	0.43				0.42%
Ag 328.068†	166704.9	1.035	mg/L	0.0107	1.035	mg/L	0.0107	1.03%
Al 308.215†	3366.0	1.980	mg/L	0.0142	1.980	mg/L	0.0142	0.71%
As 188.979†	3485.3	2.088	mg/L	0.0089	2.088	mg/L	0.0089	0.43%
B 249.677†	7154.0	0.9864	mg/L	0.00570	0.9864	mg/L	0.00570	0.58%
Ba 233.527†	4196.4	1.001	mg/L	0.0041	1.001	mg/L	0.0041	0.41%
Be 313.042†	612870.0	0.9924	mg/L	0.00718	0.9924	mg/L	0.00718	0.72%
Ca 317.933†	26863.6	2.020	mg/L	0.0125	2.020	mg/L	0.0125	0.62%
Cd 228.802†	30827.0	1.043	mg/L	0.0079	1.043	mg/L	0.0079	0.75%
Co 228.616†	34212.7	1.017	mg/L	0.0088	1.017	mg/L	0.0088	0.86%
Cr 267.716†	6002.7	1.010	mg/L	0.0082	1.010	mg/L	0.0082	0.81%
Cu 324.752†	245891.6	1.003	mg/L	0.0033	1.003	mg/L	0.0033	0.33%
Fe 273.955†	2683.2	2.037	mg/L	0.0157	2.037	mg/L	0.0157	0.77%
K 766.490†	37533.2	19.67	mg/L	0.218	19.67	mg/L	0.218	1.11%
Mg 279.077†	2699.6	1.991	mg/L	0.0200	1.991	mg/L	0.0200	1.00%
Mn 257.610†	36657.6	1.026	mg/L	0.0066	1.026	mg/L	0.0066	0.64%
Mo 202.031†	19277.6	1.002	mg/L	0.0094	1.002	mg/L	0.0094	0.94%
Na 589.592†	587825.5	50.36	mg/L	0.285	50.36	mg/L	0.285	0.57%
Na 330.237†	1425.3	50.89	mg/L	0.373	50.89	mg/L	0.373	0.73%
Ni 231.604†	3714.5	0.9939	mg/L	0.00661	0.9939	mg/L	0.00661	0.67%
Pb 220.353†	14987.7	2.009	mg/L	0.0202	2.009	mg/L	0.0202	1.01%
Sb 206.836†	6662.0	2.122	mg/L	0.0149	2.122	mg/L	0.0149	0.70%
Se 196.026†	2781.2	2.058	mg/L	0.0138	2.058	mg/L	0.0138	0.67%
Si 288.158†	4204.1	2.017	mg/L	0.0095	2.017	mg/L	0.0095	0.47%
Sn 189.927†	3813.1	1.025	mg/L	0.0064	1.025	mg/L	0.0064	0.63%
Sr 421.552†	852862.8	0.9970	mg/L	0.00682	0.9970	mg/L	0.00682	0.68%
Ti 334.903†	21155.8	1.018	mg/L	0.0057	1.018	mg/L	0.0057	0.56%
Tl 190.801†	4629.9	2.017	mg/L	0.0067	2.017	mg/L	0.0067	0.33%
V 292.402†	123837.8	1.034	mg/L	0.0107	1.034	mg/L	0.0107	1.04%
Zn 206.200†	3741.2	1.046	mg/L	0.0071	1.046	mg/L	0.0071	0.68%

Sequence No.: 4
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 11:05:48 AM
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	2445689.3	102.6	%	0.41				0.40%
ScR 361.383	312547.6	102.3	%	0.86				0.84%
Ag 328.068†	-52.1	-0.00032	mg/L	0.000113	-0.00032	mg/L	0.000113	34.91%
Al 308.215†	-12.3	-0.00741	mg/L	0.003817	-0.00741	mg/L	0.003817	51.52%
As 188.979†	-1.5	-0.00091	mg/L	0.000290	-0.00091	mg/L	0.000290	31.71%
B 249.677†	18.3	0.00252	mg/L	0.000207	0.00252	mg/L	0.000207	8.22%
Ba 233.527†	-0.1	-0.00001	mg/L	0.000089	-0.00001	mg/L	0.000089	658.14%
Be 313.042†	92.9	0.00015	mg/L	0.000053	0.00015	mg/L	0.000053	35.18%
Ca 317.933†	-14.1	-0.00106	mg/L	0.000659	-0.00106	mg/L	0.000659	62.03%
Cd 228.802†	-4.9	-0.00016	mg/L	0.000012	-0.00016	mg/L	0.000012	7.29%
Co 228.616†	9.0	0.00027	mg/L	0.000033	0.00027	mg/L	0.000033	12.24%
Cr 267.716†	5.2	0.00087	mg/L	0.000739	0.00087	mg/L	0.000739	84.67%
Cu 324.752†	-99.1	-0.00040	mg/L	0.000094	-0.00040	mg/L	0.000094	23.13%
Fe 273.955†	2.6	0.00197	mg/L	0.000844	0.00197	mg/L	0.000844	42.78%
K 766.490†	-47.4	-0.02485	mg/L	0.016923	-0.02485	mg/L	0.016923	68.09%
Mg 279.077†	-2.7	-0.00197	mg/L	0.001241	-0.00197	mg/L	0.001241	63.11%
Mn 257.610†	8.3	0.00023	mg/L	0.000107	0.00023	mg/L	0.000107	46.22%
Mo 202.031†	19.1	0.00099	mg/L	0.000107	0.00099	mg/L	0.000107	10.79%
Na 589.592†	105.9	0.00907	mg/L	0.002673	0.00907	mg/L	0.002673	29.47%
Na 330.237†	-8.9	-0.3170	mg/L	0.23048	-0.3170	mg/L	0.23048	72.70%
Ni 231.604†	4.6	0.00123	mg/L	0.001737	0.00123	mg/L	0.001737	140.95%
Pb 220.353†	-0.9	-0.00012	mg/L	0.000162	-0.00012	mg/L	0.000162	133.17%
Sb 206.836†	6.4	0.00202	mg/L	0.000754	0.00202	mg/L	0.000754	37.31%
Se 196.026†	2.3	0.00169	mg/L	0.003690	0.00169	mg/L	0.003690	218.57%
Si 288.158†	-4.2	-0.00203	mg/L	0.003672	-0.00203	mg/L	0.003672	181.22%
Sn 189.927†	-1.1	-0.00030	mg/L	0.000457	-0.00030	mg/L	0.000457	154.38%
Sr 421.552†	139.1	0.00016	mg/L	0.000047	0.00016	mg/L	0.000047	28.65%
Ti 334.903†	-6.4	-0.00031	mg/L	0.001036	-0.00031	mg/L	0.001036	332.71%
Tl 190.801†	-2.3	-0.00099	mg/L	0.001834	-0.00099	mg/L	0.001834	184.87%
V 292.402†	25.6	0.00022	mg/L	0.000222	0.00022	mg/L	0.000222	101.93%
Zn 206.200†	0.0	0.00000	mg/L	0.001017	0.00000	mg/L	0.001017	>999.9%

Analysis Begun

Start Time: 11/19/2012 11:14:03 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1119.sif
Batch ID:
Results Data Set: I2121119
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VS75 MB PHN
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 307
Date Collected: 11/19/2012 11:14:04 AM
Data Type: Original

Nebulizer Parameters: VS75 MB PHN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS75 MB PHN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2518912.8	105.6	%	0.77				0.73%
ScR 361.383	330237.1	108.1	%	1.99				1.84%
Ag 328.068†	-15.4	-0.00010	mg/L	0.000175	-0.00010	mg/L	0.000175	183.06%
Al 308.215†	-10.1	-0.00605	mg/L	0.002317	-0.00605	mg/L	0.002317	38.31%
As 188.979†	-0.9	-0.00058	mg/L	0.001296	-0.00058	mg/L	0.001296	224.32%
B 249.677†	9.1	0.00125	mg/L	0.000405	0.00125	mg/L	0.000405	32.37%
Ba 233.527†	-1.8	-0.00043	mg/L	0.000151	-0.00043	mg/L	0.000151	34.98%
Be 313.042†	1.2	0.00000	mg/L	0.000032	0.00000	mg/L	0.000032	>999.9%
Ca 317.933†	-12.7	-0.00095	mg/L	0.000217	-0.00095	mg/L	0.000217	22.82%
Cd 228.802†	-7.5	-0.00025	mg/L	0.000138	-0.00025	mg/L	0.000138	54.51%
Co 228.616†	5.6	0.00017	mg/L	0.000107	0.00017	mg/L	0.000107	63.79%
Cr 267.716†	8.2	0.00139	mg/L	0.000527	0.00139	mg/L	0.000527	37.95%
Cu 324.752†	251.4	0.00103	mg/L	0.000033	0.00103	mg/L	0.000033	3.23%
Fe 273.955†	9.0	0.00688	mg/L	0.001245	0.00688	mg/L	0.001245	18.09%
K 766.490†	-71.9	-0.03771	mg/L	0.024899	-0.03771	mg/L	0.024899	66.03%
Mg 279.077†	-10.0	-0.00737	mg/L	0.001284	-0.00737	mg/L	0.001284	17.43%
Mn 257.610†	-1.2	-0.00003	mg/L	0.000133	-0.00003	mg/L	0.000133	396.30%
Mo 202.031†	5.3	0.00027	mg/L	0.000168	0.00027	mg/L	0.000168	61.62%
Na 589.592†	76.7	0.00657	mg/L	0.001013	0.00657	mg/L	0.001013	15.41%
Na 330.237†	4.3	0.1541	mg/L	0.51022	0.1541	mg/L	0.51022	331.20%
Ni 231.604†	3.0	0.00080	mg/L	0.000600	0.00080	mg/L	0.000600	75.43%
Pb 220.353†	2.2	0.00029	mg/L	0.000442	0.00029	mg/L	0.000442	152.34%
Sb 206.836†	1.4	0.00044	mg/L	0.001189	0.00044	mg/L	0.001189	270.32%
Se 196.026†	2.4	0.00177	mg/L	0.000436	0.00177	mg/L	0.000436	24.66%
Si 288.158†	-16.1	-0.00772	mg/L	0.003272	-0.00772	mg/L	0.003272	42.41%
Sn 189.927†	-0.3	-0.00008	mg/L	0.000880	-0.00008	mg/L	0.000880	>999.9%
Sr 421.552†	24.0	0.00003	mg/L	0.000021	0.00003	mg/L	0.000021	74.19%
Ti 334.903†	-20.1	-0.00097	mg/L	0.000408	-0.00097	mg/L	0.000408	42.19%
Tl 190.801†	-4.7	-0.00208	mg/L	0.000744	-0.00208	mg/L	0.000744	35.85%
V 292.402†	4.4	0.00004	mg/L	0.000135	0.00004	mg/L	0.000135	315.47%
Zn 206.200†	1.9	0.00052	mg/L	0.000412	0.00052	mg/L	0.000412	79.02%

Sequence No.: 2
Sample ID: VS67 MB LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 308
Date Collected: 11/19/2012 11:18:21 AM
Data Type: Original

Nebulizer Parameters: VS67 MB LEN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS67 MB LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2398147.5	100.6	%	0.30				0.30%
ScR 361.383	314151.3	102.9	%	1.66				1.61%
Ag 328.068†	16.2	0.00010	mg/L	0.000270	0.00050	mg/L	0.001349	268.01%
Al 308.215†	-9.7	-0.00578	mg/L	0.006342	-0.02891	mg/L	0.031709	109.69%
As 188.979†	-1.4	-0.00092	mg/L	0.001672	-0.00458	mg/L	0.008361	182.43%
B 249.677†	198.8	0.02744	mg/L	0.001002	0.1372	mg/L	0.00501	3.65%
Ba 233.527†	11.4	0.00272	mg/L	0.000943	0.01362	mg/L	0.004716	34.61%
Be 313.042†	29.2	0.00005	mg/L	0.000028	0.00024	mg/L	0.000141	59.54%
Ca 317.933†	6703.5	0.5040	mg/L	0.01671	2.520	mg/L	0.0835	3.32%
Cd 228.802†	0.2	0.00001	mg/L	0.000112	0.00007	mg/L	0.000559	747.16%
Co 228.616†	0.3	0.00001	mg/L	0.000213	0.00005	mg/L	0.001065	>999.9%
Cr 267.716†	3.8	0.00063	mg/L	0.000762	0.00313	mg/L	0.003811	121.83%
Cu 324.752†	11.2	0.00005	mg/L	0.000159	0.00023	mg/L	0.000795	348.64%
Fe 273.955†	6.2	0.00472	mg/L	0.001563	0.02361	mg/L	0.007814	33.09%
K 766.490†	115.1	0.06033	mg/L	0.019262	0.3017	mg/L	0.09631	31.93%
Mg 279.077†	75.7	0.05561	mg/L	0.007623	0.2781	mg/L	0.03812	13.71%
Mn 257.610†	7.1	0.00020	mg/L	0.000047	0.00099	mg/L	0.000237	23.90%
Mo 202.031†	3.7	0.00019	mg/L	0.000141	0.00094	mg/L	0.000707	75.50%
Na 589.592†	3132681.4	268.4	mg/L	7.52	1342	mg/L	37.58	2.80%
Na 330.237†	7864.5	281.4	mg/L	8.26	1407	mg/L	41.29	2.93%
Ni 231.604†	15.5	0.00414	mg/L	0.000258	0.02071	mg/L	0.001289	6.22%
Pb 220.353†	2.0	0.00027	mg/L	0.000342	0.00135	mg/L	0.001710	126.19%
Sb 206.836†	-3.9	-0.00124	mg/L	0.000921	-0.00621	mg/L	0.004605	74.19%
Se 196.026†	4.9	0.00363	mg/L	0.002896	0.01817	mg/L	0.014480	79.70%
Si 288.158†	70.1	0.03366	mg/L	0.004703	0.1683	mg/L	0.02352	13.97%
Sn 189.927†	-1.5	-0.00033	mg/L	0.000234	-0.00165	mg/L	0.001172	70.83%
Sr 421.552†	329.2	0.00038	mg/L	0.000003	0.00192	mg/L	0.000017	0.90%
Ti 334.903†	-21.0	-0.00104	mg/L	0.000723	-0.00518	mg/L	0.003613	69.80%
Tl 190.801†	-1.7	-0.00074	mg/L	0.002467	-0.00372	mg/L	0.012334	331.72%
V 292.402†	-6.1	-0.00005	mg/L	0.000388	-0.00024	mg/L	0.001941	824.72%
Zn 206.200†	6.2	0.00172	mg/L	0.000605	0.00862	mg/L	0.003027	35.12%

Sequence No.: 3
Sample ID: VS75 A PHN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 309
Date Collected: 11/19/2012 11:22:53 AM
Data Type: Original

Nebulizer Parameters: VS75 A PHN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS75 A PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2525061.4	105.9	%	0.64				0.60%
ScR 361.383	332863.4	109.0	%	0.52				0.47%
Ag 328.068†	-27.5	-0.00017	mg/L	0.000107	-0.00017	mg/L	0.000107	63.26%
Al 308.215†	5728.4	3.428	mg/L	0.0320	3.428	mg/L	0.0320	0.93%
As 188.979†	-1.6	0.00293	mg/L	0.002201	0.00293	mg/L	0.002201	75.01%
B 249.677†	93.0	0.01284	mg/L	0.000522	0.01284	mg/L	0.000522	4.07%
Ba 233.527†	378.7	0.08968	mg/L	0.000756	0.08968	mg/L	0.000756	0.84%
Be 313.042†	0.4	-0.00000	mg/L	0.000021	-0.00000	mg/L	0.000021	882.85%
Ca 317.933†	31862.2	2.396	mg/L	0.0086	2.396	mg/L	0.0086	0.36%
Cd 228.802†	19.7	0.00066	mg/L	0.000103	0.00066	mg/L	0.000103	15.54%
Co 228.616†	106.1	0.00282	mg/L	0.000127	0.00282	mg/L	0.000127	4.49%
Cr 267.716†	484.2	0.08153	mg/L	0.000751	0.08153	mg/L	0.000751	0.92%
Cu 324.752†	10365.2	0.04243	mg/L	0.000392	0.04243	mg/L	0.000392	0.92%
Fe 273.955†	5271.6	4.016	mg/L	0.0272	4.016	mg/L	0.0272	0.68%
K 766.490†	2678.3	1.404	mg/L	0.0279	1.404	mg/L	0.0279	1.98%
Mg 279.077†	1063.8	0.7799	mg/L	0.00838	0.7799	mg/L	0.00838	1.07%
Mn 257.610†	1985.5	0.05555	mg/L	0.000403	0.05555	mg/L	0.000403	0.73%
Mo 202.031†	71.6	0.00369	mg/L	0.000302	0.00369	mg/L	0.000302	8.19%
Na 589.592†	59613.0	5.107	mg/L	0.0400	5.107	mg/L	0.0400	0.78%
Na 330.237†	144.8	5.088	mg/L	0.1854	5.088	mg/L	0.1854	3.64%
Ni 231.604†	75.7	0.02024	mg/L	0.001222	0.02024	mg/L	0.001222	6.04%
Pb 220.353†	351.5	0.04782	mg/L	0.000337	0.04782	mg/L	0.000337	0.70%
Sb 206.836†	1.6	-0.00051	mg/L	0.000433	-0.00051	mg/L	0.000433	84.51%
Se 196.026†	8.8	0.00649	mg/L	0.001360	0.00649	mg/L	0.001360	20.96%
Si 288.158†	2186.0	1.049	mg/L	0.0115	1.049	mg/L	0.0115	1.10%
Sn 189.927†	33.2	0.00924	mg/L	0.001384	0.00924	mg/L	0.001384	14.98%
Sr 421.552†	25936.7	0.03032	mg/L	0.000210	0.03032	mg/L	0.000210	0.69%
Ti 334.903†	3012.1	0.1449	mg/L	0.00201	0.1449	mg/L	0.00201	1.39%
Tl 190.801†	-0.1	0.00030	mg/L	0.000712	0.00030	mg/L	0.000712	235.11%
V 292.402†	740.0	0.00629	mg/L	0.000086	0.00629	mg/L	0.000086	1.36%
Zn 206.200†	1382.4	0.3866	mg/L	0.00426	0.3866	mg/L	0.00426	1.10%

Sequence No.: 4
Sample ID: VS75 B PHN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 310
Date Collected: 11/19/2012 11:26:53 AM
Data Type: Original

Nebulizer Parameters: VS75 B PHN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS75 B PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2509330.5	105.2	%	0.16				0.15%
ScR 361.383	323331.7	105.9	%	0.46				0.44%
Ag 328.068†	57.6	0.00036	mg/L	0.000258	0.00036	mg/L	0.000258	71.86%
Al 308.215†	1619.5	0.9691	mg/L	0.00661	0.9691	mg/L	0.00661	0.68%
As 188.979†	8.1	0.00657	mg/L	0.000442	0.00657	mg/L	0.000442	6.73%
B 249.677†	121.1	0.01671	mg/L	0.000804	0.01671	mg/L	0.000804	4.81%
Ba 233.527†	293.1	0.06920	mg/L	0.000512	0.06920	mg/L	0.000512	0.74%
Be 313.042†	4.3	0.00001	mg/L	0.000007	0.00001	mg/L	0.000007	137.61%
Ca 317.933†	46738.3	3.514	mg/L	0.0034	3.514	mg/L	0.0034	0.10%
Cd 228.802†	78.1	0.00261	mg/L	0.000079	0.00261	mg/L	0.000079	3.03%
Co 228.616†	158.7	0.00453	mg/L	0.000111	0.00453	mg/L	0.000111	2.45%
Cr 267.716†	180.3	0.03039	mg/L	0.000724	0.03039	mg/L	0.000724	2.38%
Cu 324.752†	17594.4	0.07196	mg/L	0.000104	0.07196	mg/L	0.000104	0.14%
Fe 273.955†	5879.6	4.479	mg/L	0.0284	4.479	mg/L	0.0284	0.63%
K 766.490†	2572.6	1.349	mg/L	0.0165	1.349	mg/L	0.0165	1.23%
Mg 279.077†	695.1	0.5086	mg/L	0.00735	0.5086	mg/L	0.00735	1.44%
Mn 257.610†	2176.3	0.06091	mg/L	0.000374	0.06091	mg/L	0.000374	0.61%
Mo 202.031†	129.4	0.00669	mg/L	0.000135	0.00669	mg/L	0.000135	2.02%
Na 589.592†	398795.1	34.17	mg/L	0.198	34.17	mg/L	0.198	0.58%
Na 330.237†	995.3	35.23	mg/L	0.262	35.23	mg/L	0.262	0.74%
Ni 231.604†	60.1	0.01607	mg/L	0.000800	0.01607	mg/L	0.000800	4.98%
Pb 220.353†	675.2	0.09045	mg/L	0.001121	0.09045	mg/L	0.001121	1.24%
Sb 206.836†	7.7	0.00214	mg/L	0.001553	0.00214	mg/L	0.001553	72.62%
Se 196.026†	3.0	0.00221	mg/L	0.000525	0.00221	mg/L	0.000525	23.74%
Si 288.158†	2194.4	1.053	mg/L	0.0129	1.053	mg/L	0.0129	1.22%
Sn 189.927†	32.5	0.00917	mg/L	0.000405	0.00917	mg/L	0.000405	4.42%
Sr 421.552†	41025.8	0.04796	mg/L	0.000155	0.04796	mg/L	0.000155	0.32%
Ti 334.903†	1471.8	0.07070	mg/L	0.003209	0.07070	mg/L	0.003209	4.54%
Tl 190.801†	-1.3	-0.00012	mg/L	0.002141	-0.00012	mg/L	0.002141	>999.9%
V 292.402†	389.3	0.00319	mg/L	0.000104	0.00319	mg/L	0.000104	3.26%
Zn 206.200†	4366.9	1.221	mg/L	0.0068	1.221	mg/L	0.0068	0.55%

Sequence No.: 5
Sample ID: VS67 B LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 311
Date Collected: 11/19/2012 11:31:07 AM
Data Type: Original

Nebulizer Parameters: VS67 B LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS67 B LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2314882.9	97.07	%	0.401				0.41%
ScR 361.383	307336.2	100.6	%	1.84				1.83%
Ag 328.068†	-200.6	-0.00125	mg/L	0.000247	-0.00623	mg/L	0.001235	19.84%
Al 308.215†	442.0	0.2643	mg/L	0.01602	1.322	mg/L	0.0801	6.06%
As 188.979†	49.8	0.01978	mg/L	0.003170	0.09891	mg/L	0.015849	16.02%
B 249.677†	-11.4	-0.00157	mg/L	0.001432	-0.00783	mg/L	0.007162	91.50%
Ba 233.527†	651.4	0.1554	mg/L	0.01184	0.7771	mg/L	0.05921	7.62%
Be 313.042†	8.4	0.00001	mg/L	0.000014	0.00007	mg/L	0.000071	106.60%
Ca 317.933†	2259905.4	169.9	mg/L	12.07	849.5	mg/L	60.35	7.10%
Cd 228.802†	13.2	0.00026	mg/L	0.000186	0.00129	mg/L	0.000930	72.38%
Co 228.616†	13.7	0.00038	mg/L	0.000089	0.00190	mg/L	0.000443	23.37%
Cr 267.716†	176.8	0.02818	mg/L	0.002169	0.1409	mg/L	0.01084	7.69%
Cu 324.752†	3011.8	0.01228	mg/L	0.000494	0.06141	mg/L	0.002470	4.02%
Fe 273.955†	13.6	0.01040	mg/L	0.001646	0.05200	mg/L	0.008228	15.83%
K 766.490†	3760.8	1.971	mg/L	0.0945	9.857	mg/L	0.4724	4.79%
Mg 279.077†	25.2	0.01859	mg/L	0.002038	0.09297	mg/L	0.010189	10.96%
Mn 257.610†	36.6	0.00054	mg/L	0.000123	0.00268	mg/L	0.000616	23.02%
Mo 202.031†	194.1	0.00825	mg/L	0.000390	0.04125	mg/L	0.001948	4.72%
Na 589.592†	3236105.1	277.3	mg/L	17.17	1386	mg/L	85.84	6.19%
Na 330.237†	8048.8	288.0	mg/L	16.42	1440	mg/L	82.09	5.70%
Ni 231.604†	8.0	0.00213	mg/L	0.001866	0.01063	mg/L	0.009328	87.77%
Pb 220.353†	6.6	0.00098	mg/L	0.000440	0.00489	mg/L	0.002202	45.06%
Sb 206.836†	7.1	0.00163	mg/L	0.001825	0.00817	mg/L	0.009123	111.66%
Se 196.026†	-25.0	-0.01853	mg/L	0.005892	-0.09263	mg/L	0.029460	31.80%
Si 288.158†	1758.6	0.8441	mg/L	0.06289	4.220	mg/L	0.3145	7.45%
Sn 189.927†	-77.7	0.00015	mg/L	0.003146	0.00075	mg/L	0.015728	>999.9%
Sr 421.552†	629751.3	0.7362	mg/L	0.04924	3.681	mg/L	0.2462	6.69%
Ti 334.903†	203.1	0.00166	mg/L	0.000685	0.00829	mg/L	0.003426	41.32%
Tl 190.801†	24.5	0.01073	mg/L	0.004129	0.05365	mg/L	0.020647	38.48%
V 292.402†	118.1	0.00111	mg/L	0.000144	0.00555	mg/L	0.000720	12.97%
Zn 206.200†	5.7	0.00158	mg/L	0.000414	0.00791	mg/L	0.002070	26.15%

Sequence No.: 6
Sample ID: VS67 ADUP LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 312
Date Collected: 11/19/2012 11:35:40 AM
Data Type: Original

Nebulizer Parameters: VS67 ADUP LEN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS67 ADUP LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2321325.0	97.34	%	0.579				0.59%
ScR 361.383	306381.3	100.3	%	1.88				1.87%
Ag 328.068†	-182.8	-0.00113	mg/L	0.000203	-0.00567	mg/L	0.001016	17.90%
Al 308.215†	385.5	0.2305	mg/L	0.00821	1.153	mg/L	0.0410	3.56%
As 188.979†	51.5	0.02107	mg/L	0.002140	0.1053	mg/L	0.01070	10.16%
B 249.677†	116.5	0.01609	mg/L	0.001097	0.08045	mg/L	0.005487	6.82%
Ba 233.527†	641.7	0.1531	mg/L	0.00583	0.7655	mg/L	0.02913	3.81%
Be 313.042†	13.3	0.00002	mg/L	0.000031	0.00011	mg/L	0.000157	146.78%
Ca 317.933†	2190867.3	164.7	mg/L	4.66	823.6	mg/L	23.28	2.83%
Cd 228.802†	12.3	0.00022	mg/L	0.000020	0.00111	mg/L	0.000099	8.90%
Co 228.616†	14.7	0.00041	mg/L	0.000110	0.00205	mg/L	0.000550	26.85%
Cr 267.716†	176.2	0.02813	mg/L	0.002067	0.1407	mg/L	0.01034	7.35%
Cu 324.752†	1954.9	0.00797	mg/L	0.000262	0.03985	mg/L	0.001312	3.29%
Fe 273.955†	9.1	0.00700	mg/L	0.000377	0.03498	mg/L	0.001883	5.38%
K 766.490†	3473.5	1.821	mg/L	0.0486	9.104	mg/L	0.2432	2.67%
Mg 279.077†	74.7	0.05495	mg/L	0.008092	0.2747	mg/L	0.04046	14.73%
Mn 257.610†	35.2	0.00051	mg/L	0.000112	0.00256	mg/L	0.000558	21.77%
Mo 202.031†	168.6	0.00698	mg/L	0.000237	0.03490	mg/L	0.001185	3.39%
Na 589.592†	3268848.2	280.1	mg/L	7.44	1400	mg/L	37.19	2.66%
Na 330.237†	7980.8	285.6	mg/L	8.50	1428	mg/L	42.51	2.98%
Ni 231.604†	12.7	0.00339	mg/L	0.000251	0.01696	mg/L	0.001257	7.41%
Pb 220.353†	-21.6	-0.00280	mg/L	0.000215	-0.01399	mg/L	0.001077	7.70%
Sb 206.836†	2.4	0.00015	mg/L	0.002311	0.00076	mg/L	0.011555	>999.9%
Se 196.026†	-26.8	-0.01986	mg/L	0.003239	-0.09930	mg/L	0.016196	16.31%
Si 288.158†	1441.3	0.6918	mg/L	0.02940	3.459	mg/L	0.1470	4.25%
Sn 189.927†	-70.7	0.00140	mg/L	0.001569	0.00701	mg/L	0.007844	111.85%
Sr 421.552†	659200.9	0.7706	mg/L	0.02043	3.853	mg/L	0.1022	2.65%
Ti 334.903†	190.5	0.00130	mg/L	0.000698	0.00649	mg/L	0.003489	53.78%
Tl 190.801†	22.8	0.00997	mg/L	0.002339	0.04985	mg/L	0.011694	23.46%
V 292.402†	73.1	0.00074	mg/L	0.000205	0.00368	mg/L	0.001027	27.95%
Zn 206.200†	3.9	0.00107	mg/L	0.000547	0.00537	mg/L	0.002736	50.92%

Sequence No.: 7
Sample ID: VS67 A LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 313
Date Collected: 11/19/2012 11:40:13 AM
Data Type: Original

Nebulizer Parameters: VS67 A LEN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS67 A LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2326516.7	97.56	%	0.151				0.16%
ScR 361.383	301919.6	98.87	%	1.294				1.31%
Ag 328.068†	-184.7	-0.00115	mg/L	0.000236	-0.00573	mg/L	0.001181	20.60%
Al 308.215†	368.6	0.2204	mg/L	0.01873	1.102	mg/L	0.0936	8.50%
As 188.979†	48.1	0.01926	mg/L	0.002310	0.09629	mg/L	0.011552	12.00%
B 249.677†	116.4	0.01608	mg/L	0.000403	0.08038	mg/L	0.002013	2.50%
Ba 233.527†	644.2	0.1537	mg/L	0.00728	0.7685	mg/L	0.03640	4.74%
Be 313.042†	16.8	0.00003	mg/L	0.000015	0.00013	mg/L	0.000076	56.18%
Ca 317.933†	2156743.3	162.2	mg/L	6.12	810.8	mg/L	30.58	3.77%
Cd 228.802†	8.7	0.00011	mg/L	0.000124	0.00054	mg/L	0.000618	114.10%
Co 228.616†	14.9	0.00042	mg/L	0.000103	0.00208	mg/L	0.000516	24.82%
Cr 267.716†	171.3	0.02732	mg/L	0.001567	0.1366	mg/L	0.00783	5.73%
Cu 324.752†	2263.5	0.00923	mg/L	0.000314	0.04615	mg/L	0.001570	3.40%
Fe 273.955†	6.2	0.00480	mg/L	0.002104	0.02398	mg/L	0.010518	43.86%
K 766.490†	3467.6	1.818	mg/L	0.0744	9.088	mg/L	0.3722	4.10%
Mg 279.077†	79.6	0.05858	mg/L	0.004663	0.2929	mg/L	0.02332	7.96%
Mn 257.610†	36.8	0.00056	mg/L	0.000128	0.00282	mg/L	0.000639	22.63%
Mo 202.031†	173.5	0.00726	mg/L	0.000062	0.03632	mg/L	0.000309	0.85%
Na 589.592†	3223634.5	276.2	mg/L	10.58	1381	mg/L	52.92	3.83%
Na 330.237†	7894.6	282.5	mg/L	10.94	1412	mg/L	54.69	3.87%
Ni 231.604†	4.6	0.00122	mg/L	0.000813	0.00611	mg/L	0.004067	66.52%
Pb 220.353†	-22.9	-0.00298	mg/L	0.000412	-0.01489	mg/L	0.002061	13.84%
Sb 206.836†	-0.9	-0.00089	mg/L	0.001121	-0.00444	mg/L	0.005607	126.16%
Se 196.026†	-26.4	-0.01952	mg/L	0.002111	-0.09760	mg/L	0.010554	10.81%
Si 288.158†	1453.4	0.6976	mg/L	0.02856	3.488	mg/L	0.1428	4.09%
Sn 189.927†	-73.9	0.00021	mg/L	0.000980	0.00107	mg/L	0.004899	459.74%
Sr 421.552†	652879.8	0.7632	mg/L	0.03079	3.816	mg/L	0.1539	4.03%
Ti 334.903†	196.8	0.00173	mg/L	0.000852	0.00863	mg/L	0.004259	49.36%
Tl 190.801†	25.1	0.01097	mg/L	0.002697	0.05484	mg/L	0.013483	24.59%
V 292.402†	76.2	0.00076	mg/L	0.000061	0.00379	mg/L	0.000306	8.08%
Zn 206.200†	2.8	0.00079	mg/L	0.000323	0.00395	mg/L	0.001613	40.88%

Sequence No.: 8
Sample ID: VS67 ASPK LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 314
Date Collected: 11/19/2012 11:44:29 AM
Data Type: Original

Nebulizer Parameters: VS67 ASPK LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS67 ASPK LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2357151.8	98.84	%	0.670				0.68%
ScR 361.383	308538.5	101.0	%	1.27				1.25%
Ag 328.068†	34086.2	0.2117	mg/L	0.00325	1.059	mg/L	0.0163	1.54%
Al 308.215†	1759.9	1.050	mg/L	0.0303	5.251	mg/L	0.1515	2.89%
As 188.979†	1513.9	0.8862	mg/L	0.01710	4.431	mg/L	0.0855	1.93%
B 249.677†	121.7	0.01637	mg/L	0.001215	0.08187	mg/L	0.006073	7.42%
Ba 233.527†	3973.1	0.9478	mg/L	0.02797	4.739	mg/L	0.1398	2.95%
Be 313.042†	125230.0	0.2028	mg/L	0.00341	1.014	mg/L	0.0171	1.68%
Ca 317.933†	2329547.2	175.1	mg/L	3.45	875.7	mg/L	17.24	1.97%
Cd 228.802†	6737.6	0.2250	mg/L	0.00390	1.125	mg/L	0.0195	1.74%
Co 228.616†	6974.5	0.2076	mg/L	0.00353	1.038	mg/L	0.0177	1.70%
Cr 267.716†	1388.6	0.2316	mg/L	0.00570	1.158	mg/L	0.0285	2.46%
Cu 324.752†	55644.3	0.2271	mg/L	0.00366	1.135	mg/L	0.0183	1.61%
Fe 273.955†	1070.4	0.8140	mg/L	0.02054	4.070	mg/L	0.1027	2.52%
K 766.490†	11266.4	5.906	mg/L	0.0859	29.53	mg/L	0.430	1.46%
Mg 279.077†	5592.4	4.111	mg/L	0.1012	20.55	mg/L	0.506	2.46%
Mn 257.610†	7286.0	0.2035	mg/L	0.00517	1.017	mg/L	0.0258	2.54%
Mo 202.031†	161.7	0.00650	mg/L	0.000173	0.03249	mg/L	0.000863	2.66%
Na 589.592†	3406393.5	291.8	mg/L	7.51	1459	mg/L	37.57	2.57%
Na 330.237†	8342.8	298.5	mg/L	4.75	1492	mg/L	23.73	1.59%
Ni 231.604†	751.5	0.2007	mg/L	0.00571	1.003	mg/L	0.0285	2.84%
Pb 220.353†	6105.1	0.8182	mg/L	0.01331	4.091	mg/L	0.0666	1.63%
Sb 206.836†	1.8	-0.00214	mg/L	0.002203	-0.01072	mg/L	0.011014	102.74%
Se 196.026†	1151.6	0.8524	mg/L	0.01012	4.262	mg/L	0.0506	1.19%
Si 288.158†	1507.2	0.7247	mg/L	0.01954	3.624	mg/L	0.0977	2.70%
Sn 189.927†	-74.8	0.00159	mg/L	0.000883	0.00797	mg/L	0.004415	55.37%
Sr 421.552†	851653.4	0.9956	mg/L	0.01786	4.978	mg/L	0.0893	1.79%
Ti 334.903†	202.3	0.00133	mg/L	0.000147	0.00664	mg/L	0.000733	11.03%
Tl 190.801†	1805.4	0.7879	mg/L	0.01500	3.939	mg/L	0.0750	1.90%
V 292.402†	24552.9	0.2052	mg/L	0.00334	1.026	mg/L	0.0167	1.63%
Zn 206.200†	727.2	0.2034	mg/L	0.00550	1.017	mg/L	0.0275	2.71%

Sequence No.: 9
Sample ID: VS75 MBSPK PHN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 315
Date Collected: 11/19/2012 11:49:02 AM
Data Type: Original

Nebulizer Parameters: VS75 MBSPK PHN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS75 MBSPK PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2481410.9	104.1	%	0.16				0.15%
ScR 361.383	314299.4	102.9	%	0.82				0.80%
Ag 328.068†	169825.8	1.055	mg/L	0.0031	1.055	mg/L	0.0031	0.30%
Al 308.215†	6870.9	4.098	mg/L	0.0208	4.098	mg/L	0.0208	0.51%
As 188.979†	7018.3	4.153	mg/L	0.0051	4.153	mg/L	0.0051	0.12%
B 249.677†	10.6	-0.00063	mg/L	0.000447	-0.00063	mg/L	0.000447	70.51%
Ba 233.527†	17012.7	4.058	mg/L	0.0246	4.058	mg/L	0.0246	0.61%
Be 313.042†	633347.3	1.026	mg/L	0.0072	1.026	mg/L	0.0072	0.70%
Ca 317.933†	263199.8	19.79	mg/L	0.114	19.79	mg/L	0.114	0.58%
Cd 228.802†	31787.4	1.062	mg/L	0.0027	1.062	mg/L	0.0027	0.25%
Co 228.616†	34314.4	1.022	mg/L	0.0035	1.022	mg/L	0.0035	0.34%
Cr 267.716†	6206.9	1.042	mg/L	0.0040	1.042	mg/L	0.0040	0.38%
Cu 324.752†	246490.2	1.006	mg/L	0.0019	1.006	mg/L	0.0019	0.19%
Fe 273.955†	5488.8	4.174	mg/L	0.0067	4.174	mg/L	0.0067	0.16%
K 766.490†	38383.5	20.12	mg/L	0.201	20.12	mg/L	0.201	1.00%
Mg 279.077†	28349.9	20.84	mg/L	0.097	20.84	mg/L	0.097	0.47%
Mn 257.610†	36029.5	1.009	mg/L	0.0060	1.009	mg/L	0.0060	0.59%
Mo 202.031†	41.9	0.00191	mg/L	0.000175	0.00191	mg/L	0.000175	9.18%
Na 589.592†	237472.5	20.35	mg/L	0.156	20.35	mg/L	0.156	0.77%
Na 330.237†	582.9	20.52	mg/L	0.083	20.52	mg/L	0.083	0.40%
Ni 231.604†	3800.3	1.015	mg/L	0.0069	1.015	mg/L	0.0069	0.68%
Pb 220.353†	29875.4	4.004	mg/L	0.0006	4.004	mg/L	0.0006	0.02%
Sb 206.836†	25.0	-0.00307	mg/L	0.001493	-0.00307	mg/L	0.001493	48.72%
Se 196.026†	5614.8	4.156	mg/L	0.0058	4.156	mg/L	0.0058	0.14%
Si 288.158†	-18.5	-0.00240	mg/L	0.001928	-0.00240	mg/L	0.001928	80.26%
Sn 189.927†	-31.4	-0.00585	mg/L	0.000418	-0.00585	mg/L	0.000418	7.15%
Sr 421.552†	882294.7	1.031	mg/L	0.0071	1.031	mg/L	0.0071	0.69%
Ti 334.903†	24.6	0.00003	mg/L	0.000319	0.00003	mg/L	0.000319	>999.9%
Tl 190.801†	9093.6	3.969	mg/L	0.0051	3.969	mg/L	0.0051	0.13%
V 292.402†	123140.0	1.029	mg/L	0.0019	1.029	mg/L	0.0019	0.18%
Zn 206.200†	3703.0	1.036	mg/L	0.0047	1.036	mg/L	0.0047	0.45%

Sequence No.: 10
Sample ID: CV 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 11:53:04 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2444669.3	102.5	%	0.27				0.27%
ScR 361.383	310279.4	101.6	%	1.52				1.49%
Ag 328.068†	164528.2	1.022	mg/L	0.0022	1.022	mg/L	0.0022	0.21%
Al 308.215†	3366.7	1.981	mg/L	0.0292	1.981	mg/L	0.0292	1.47%
As 188.979†	3468.4	2.079	mg/L	0.0034	2.079	mg/L	0.0034	0.16%
B 249.677†	7181.6	0.9902	mg/L	0.02043	0.9902	mg/L	0.02043	2.06%
Ba 233.527†	4150.5	0.9898	mg/L	0.01061	0.9898	mg/L	0.01061	1.07%
Be 313.042†	626594.2	1.015	mg/L	0.0201	1.015	mg/L	0.0201	1.98%
Ca 317.933†	27498.5	2.067	mg/L	0.0304	2.067	mg/L	0.0304	1.47%
Cd 228.802†	30592.2	1.035	mg/L	0.0031	1.035	mg/L	0.0031	0.30%
Co 228.616†	33745.4	1.003	mg/L	0.0032	1.003	mg/L	0.0032	0.32%
Cr 267.716†	6035.2	1.015	mg/L	0.0154	1.015	mg/L	0.0154	1.52%
Cu 324.752†	244268.9	0.9962	mg/L	0.00281	0.9962	mg/L	0.00281	0.28%
Fe 273.955†	2725.8	2.069	mg/L	0.0288	2.069	mg/L	0.0288	1.39%
K 766.490†	38330.3	20.09	mg/L	0.431	20.09	mg/L	0.431	2.15%
Mg 279.077†	2716.5	2.004	mg/L	0.0198	2.004	mg/L	0.0198	0.99%
Mn 257.610†	37198.7	1.041	mg/L	0.0157	1.041	mg/L	0.0157	1.51%
Mo 202.031†	19005.7	0.9879	mg/L	0.00367	0.9879	mg/L	0.00367	0.37%
Na 589.592†	598876.3	51.31	mg/L	1.034	51.31	mg/L	1.034	2.01%
Na 330.237†	1449.6	51.76	mg/L	0.746	51.76	mg/L	0.746	1.44%
Ni 231.604†	3730.6	0.9982	mg/L	0.01756	0.9982	mg/L	0.01756	1.76%
Pb 220.353†	14826.8	1.987	mg/L	0.0054	1.987	mg/L	0.0054	0.27%
Sb 206.836†	6613.2	2.106	mg/L	0.0044	2.106	mg/L	0.0044	0.21%
Se 196.026†	2765.1	2.046	mg/L	0.0083	2.046	mg/L	0.0083	0.41%
Si 288.158†	4236.6	2.032	mg/L	0.0281	2.032	mg/L	0.0281	1.39%
Sn 189.927†	3786.0	1.018	mg/L	0.0012	1.018	mg/L	0.0012	0.12%
Sr 421.552†	869451.6	1.016	mg/L	0.0198	1.016	mg/L	0.0198	1.95%
Ti 334.903†	21353.5	1.027	mg/L	0.0150	1.027	mg/L	0.0150	1.46%
Tl 190.801†	4567.2	1.990	mg/L	0.0025	1.990	mg/L	0.0025	0.13%
V 292.402†	122306.2	1.022	mg/L	0.0032	1.022	mg/L	0.0032	0.32%
Zn 206.200†	3744.6	1.047	mg/L	0.0146	1.047	mg/L	0.0146	1.39%

Sequence No.: 11
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 11:57:25 AM
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	2439994.6	102.3	%	0.42				0.41%
ScR 361.383	317951.6	104.1	%	1.07				1.02%
Ag 328.068†	36.1	0.00022	mg/L	0.000046	0.00022	mg/L	0.000046	20.44%
Al 308.215†	-4.6	-0.00275	mg/L	0.004377	-0.00275	mg/L	0.004377	159.03%
As 188.979†	3.4	0.00199	mg/L	0.001731	0.00199	mg/L	0.001731	87.17%
B 249.677†	6.0	0.00082	mg/L	0.000717	0.00082	mg/L	0.000717	87.18%
Ba 233.527†	-0.2	-0.00004	mg/L	0.000264	-0.00004	mg/L	0.000264	602.50%
Be 313.042†	95.0	0.00015	mg/L	0.000008	0.00015	mg/L	0.000008	5.25%
Ca 317.933†	252.8	0.01900	mg/L	0.002064	0.01900	mg/L	0.002064	10.86%
Cd 228.802†	-4.7	-0.00017	mg/L	0.000121	-0.00017	mg/L	0.000121	70.08%
Co 228.616†	6.0	0.00018	mg/L	0.000092	0.00018	mg/L	0.000092	51.03%
Cr 267.716†	5.6	0.00094	mg/L	0.000720	0.00094	mg/L	0.000720	76.71%
Cu 324.752†	-130.9	-0.00053	mg/L	0.000140	-0.00053	mg/L	0.000140	26.26%
Fe 273.955†	3.5	0.00265	mg/L	0.000554	0.00265	mg/L	0.000554	20.91%
K 766.490†	-27.0	-0.01417	mg/L	0.000695	-0.01417	mg/L	0.000695	4.90%
Mg 279.077†	-5.3	-0.00390	mg/L	0.001236	-0.00390	mg/L	0.001236	31.72%
Mn 257.610†	7.4	0.00021	mg/L	0.000066	0.00021	mg/L	0.000066	32.12%
Mo 202.031†	11.8	0.00061	mg/L	0.000176	0.00061	mg/L	0.000176	28.81%
Na 589.592†	719.1	0.06161	mg/L	0.003489	0.06161	mg/L	0.003489	5.66%
Na 330.237†	-6.8	-0.2449	mg/L	0.11826	-0.2449	mg/L	0.11826	48.28%
Ni 231.604†	6.8	0.00183	mg/L	0.001013	0.00183	mg/L	0.001013	55.45%
Pb 220.353†	2.3	0.00031	mg/L	0.000276	0.00031	mg/L	0.000276	87.98%
Sb 206.836†	4.3	0.00137	mg/L	0.000855	0.00137	mg/L	0.000855	62.48%
Se 196.026†	-0.2	-0.00012	mg/L	0.001711	-0.00012	mg/L	0.001711	>999.9%
Si 288.158†	2.5	0.00120	mg/L	0.005544	0.00120	mg/L	0.005544	461.81%
Sn 189.927†	-0.3	-0.00007	mg/L	0.000687	-0.00007	mg/L	0.000687	959.51%
Sr 421.552†	221.9	0.00026	mg/L	0.000007	0.00026	mg/L	0.000007	2.68%
Ti 334.903†	-5.5	-0.00027	mg/L	0.001414	-0.00027	mg/L	0.001414	526.14%
Tl 190.801†	-1.0	-0.00044	mg/L	0.002424	-0.00044	mg/L	0.002424	545.35%
V 292.402†	13.9	0.00012	mg/L	0.000150	0.00012	mg/L	0.000150	124.65%
Zn 206.200†	-0.4	-0.00012	mg/L	0.000446	-0.00012	mg/L	0.000446	387.72%

Sequence No.: 12
Sample ID: VR36 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 316
Date Collected: 11/19/2012 12:01:40 PM
Data Type: Original

Nebulizer Parameters: VR36 E SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR36 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2470017.7	103.6	%	0.67				0.65%
ScR 361.383	323775.7	106.0	%	1.29				1.22%
Ag 328.068†	-55.9	-0.00032	mg/L	0.000080	-0.00160	mg/L	0.000401	24.98%
Al 308.215†	77040.2	46.11	mg/L	0.259	230.5	mg/L	1.29	0.56%
As 188.979†	12.6	0.06816	mg/L	0.000138	0.3408	mg/L	0.00069	0.20%
B 249.677†	35.3	0.00482	mg/L	0.001445	0.02409	mg/L	0.007224	29.98%
Ba 233.527†	2608.0	0.6128	mg/L	0.00243	3.064	mg/L	0.0122	0.40%
Be 313.042†	952.1	0.00150	mg/L	0.000025	0.00749	mg/L	0.000126	1.68%
Ca 317.933†	134892.3	10.14	mg/L	0.063	50.71	mg/L	0.314	0.62%
Cd 228.802†	436.8	0.01441	mg/L	0.000210	0.07204	mg/L	0.001052	1.46%
Co 228.616†	829.9	0.01977	mg/L	0.000166	0.09885	mg/L	0.000831	0.84%
Cr 267.716†	383.1	0.06527	mg/L	0.000540	0.3263	mg/L	0.00270	0.83%
Cu 324.752†	13198.8	0.05584	mg/L	0.000582	0.2792	mg/L	0.00291	1.04%
Fe 273.955†	75330.5	57.38	mg/L	0.369	286.9	mg/L	1.84	0.64%
K 766.490†	10842.4	5.683	mg/L	0.0446	28.42	mg/L	0.223	0.78%
Mg 279.077†	17747.3	13.01	mg/L	0.084	65.07	mg/L	0.422	0.65%
Mn 257.610†	67582.0	1.891	mg/L	0.0095	9.453	mg/L	0.0474	0.50%
Mo 202.031†	47.4	0.00235	mg/L	0.000043	0.01176	mg/L	0.000216	1.84%
Na 589.592†	6321.5	0.5416	mg/L	0.00467	2.708	mg/L	0.0233	0.86%
Na 330.237†	0.0	0.1367	mg/L	0.08025	0.6837	mg/L	0.40124	58.69%
Ni 231.604†	191.6	0.05125	mg/L	0.001044	0.2563	mg/L	0.00522	2.04%
Pb 220.353†	3873.8	0.5276	mg/L	0.00298	2.638	mg/L	0.0149	0.57%
Sb 206.836†	16.4	0.00556	mg/L	0.000307	0.02782	mg/L	0.001535	5.52%
Se 196.026†	2.5	0.00180	mg/L	0.002766	0.00900	mg/L	0.013829	153.66%
Si 288.158†	5179.8	2.487	mg/L	0.0192	12.44	mg/L	0.096	0.77%
Sn 189.927†	-15.4	-0.00254	mg/L	0.001287	-0.01270	mg/L	0.006437	50.68%
Sr 421.552†	98907.7	0.1156	mg/L	0.00064	0.5781	mg/L	0.00322	0.56%
Ti 334.903†	44533.6	2.144	mg/L	0.0114	10.72	mg/L	0.057	0.53%
Tl 190.801†	-9.8	0.00136	mg/L	0.001620	0.00680	mg/L	0.008100	119.12%
V 292.402†	10958.4	0.08850	mg/L	0.001053	0.4425	mg/L	0.00526	1.19%
Zn 206.200†	3822.2	1.069	mg/L	0.0055	5.345	mg/L	0.0277	0.52%

Sequence No.: 13
Sample ID: VR36 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 317
Date Collected: 11/19/2012 12:05:41 PM
Data Type: Original

Nebulizer Parameters: VR36 F SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2509833.6	105.2	%	0.42				0.40%
ScR 361.383	327612.2	107.3	%	0.46				0.43%
Ag 328.068†	-162.3	-0.00098	mg/L	0.000118	-0.00490	mg/L	0.000591	12.07%
Al 308.215†	79449.8	47.55	mg/L	0.236	237.7	mg/L	1.18	0.50%
As 188.979†	-73.9	0.01968	mg/L	0.001694	0.09842	mg/L	0.008469	8.60%
B 249.677†	26.4	0.00359	mg/L	0.000756	0.01795	mg/L	0.003779	21.05%
Ba 233.527†	1810.5	0.4221	mg/L	0.00174	2.110	mg/L	0.0087	0.41%
Be 313.042†	965.8	0.00152	mg/L	0.000012	0.00759	mg/L	0.000059	0.78%
Ca 317.933†	114748.0	8.627	mg/L	0.0414	43.14	mg/L	0.207	0.48%
Cd 228.802†	100.0	0.00319	mg/L	0.000028	0.01594	mg/L	0.000140	0.88%
Co 228.616†	903.3	0.02176	mg/L	0.000146	0.1088	mg/L	0.00073	0.67%
Cr 267.716†	397.3	0.06779	mg/L	0.000849	0.3389	mg/L	0.00424	1.25%
Cu 324.752†	10579.8	0.04525	mg/L	0.000498	0.2263	mg/L	0.00249	1.10%
Fe 273.955†	79007.0	60.18	mg/L	0.209	300.9	mg/L	1.04	0.35%
K 766.490†	10780.1	5.651	mg/L	0.0282	28.25	mg/L	0.141	0.50%
Mg 279.077†	18731.6	13.74	mg/L	0.049	68.68	mg/L	0.243	0.35%
Mn 257.610†	46889.9	1.312	mg/L	0.0037	6.559	mg/L	0.0186	0.28%
Mo 202.031†	31.7	0.00155	mg/L	0.000175	0.00775	mg/L	0.000874	11.27%
Na 589.592†	5903.2	0.5058	mg/L	0.00397	2.529	mg/L	0.0199	0.79%
Na 330.237†	-7.0	0.1018	mg/L	0.13621	0.5088	mg/L	0.68105	133.86%
Ni 231.604†	198.2	0.05303	mg/L	0.001206	0.2651	mg/L	0.00603	2.27%
Pb 220.353†	791.9	0.1150	mg/L	0.00107	0.5752	mg/L	0.00535	0.93%
Sb 206.836†	2.8	0.00124	mg/L	0.001304	0.00620	mg/L	0.006522	105.14%
Se 196.026†	7.2	0.00524	mg/L	0.001338	0.02619	mg/L	0.006692	25.56%
Si 288.158†	3401.6	1.634	mg/L	0.0071	8.170	mg/L	0.0354	0.43%
Sn 189.927†	-17.1	-0.00321	mg/L	0.000302	-0.01603	mg/L	0.001509	9.41%
Sr 421.552†	87513.6	0.1023	mg/L	0.00037	0.5115	mg/L	0.00185	0.36%
Ti 334.903†	46441.8	2.236	mg/L	0.0074	11.18	mg/L	0.037	0.33%
Tl 190.801†	-12.6	0.00041	mg/L	0.002989	0.00207	mg/L	0.014943	722.81%
V 292.402†	11648.6	0.09401	mg/L	0.001118	0.4701	mg/L	0.00559	1.19%
Zn 206.200†	1706.1	0.4771	mg/L	0.00020	2.386	mg/L	0.0010	0.04%

Sequence No.: 14
Sample ID: VR36 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 318
Date Collected: 11/19/2012 12:09:41 PM
Data Type: Original

Nebulizer Parameters: VR36 G SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR36 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2493711.0	104.6	%	0.28				0.26%
ScR 361.383	326395.1	106.9	%	0.70				0.66%
Ag 328.068†	-188.6	-0.00114	mg/L	0.000261	-0.00572	mg/L	0.001304	22.81%
Al 308.215†	77426.1	46.34	mg/L	0.880	231.7	mg/L	4.40	1.90%
As 188.979†	-93.2	0.00949	mg/L	0.003248	0.04746	mg/L	0.016242	34.23%
B 249.677†	26.0	0.00354	mg/L	0.001520	0.01771	mg/L	0.007598	42.90%
Ba 233.527†	1414.5	0.3281	mg/L	0.00659	1.640	mg/L	0.0330	2.01%
Be 313.042†	874.6	0.00137	mg/L	0.000020	0.00685	mg/L	0.000102	1.49%
Ca 317.933†	114376.4	8.599	mg/L	0.1776	43.00	mg/L	0.888	2.07%
Cd 228.802†	16.9	0.00044	mg/L	0.000097	0.00219	mg/L	0.000485	22.13%
Co 228.616†	815.1	0.01910	mg/L	0.000188	0.09548	mg/L	0.000941	0.99%
Cr 267.716†	381.3	0.06504	mg/L	0.002279	0.3252	mg/L	0.01140	3.50%
Cu 324.752†	9659.3	0.04136	mg/L	0.000620	0.2068	mg/L	0.00310	1.50%
Fe 273.955†	75178.2	57.26	mg/L	1.128	286.3	mg/L	5.64	1.97%
K 766.490†	10379.2	5.441	mg/L	0.1210	27.20	mg/L	0.605	2.22%
Mg 279.077†	18387.5	13.48	mg/L	0.271	67.42	mg/L	1.356	2.01%
Mn 257.610†	34360.0	0.9613	mg/L	0.01884	4.806	mg/L	0.0942	1.96%
Mo 202.031†	22.2	0.00106	mg/L	0.000073	0.00528	mg/L	0.000367	6.95%
Na 589.592†	6386.7	0.5472	mg/L	0.01327	2.736	mg/L	0.0664	2.43%
Na 330.237†	-9.2	0.1288	mg/L	0.18992	0.6440	mg/L	0.94961	147.46%
Ni 231.604†	182.6	0.04886	mg/L	0.001824	0.2443	mg/L	0.00912	3.73%
Pb 220.353†	112.5	0.02386	mg/L	0.000751	0.1193	mg/L	0.00375	3.15%
Sb 206.836†	6.7	0.00254	mg/L	0.000715	0.01269	mg/L	0.003576	28.19%
Se 196.026†	5.3	0.00382	mg/L	0.002348	0.01911	mg/L	0.011742	61.44%
Si 288.158†	3126.6	1.502	mg/L	0.0261	7.510	mg/L	0.1306	1.74%
Sn 189.927†	-15.7	-0.00282	mg/L	0.001324	-0.01411	mg/L	0.006620	46.92%
Sr 421.552†	84928.1	0.09928	mg/L	0.002059	0.4964	mg/L	0.01029	2.07%
Ti 334.903†	47315.3	2.278	mg/L	0.0443	11.39	mg/L	0.222	1.95%
Tl 190.801†	-14.6	-0.00077	mg/L	0.003980	-0.00383	mg/L	0.019900	520.13%
V 292.402†	11498.0	0.09277	mg/L	0.001164	0.4639	mg/L	0.00582	1.25%
Zn 206.200†	650.8	0.1820	mg/L	0.00469	0.9100	mg/L	0.02343	2.57%

Sequence No.: 15
Sample ID: VR36 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 319
Date Collected: 11/19/2012 12:13:41 PM
Data Type: Original

Nebulizer Parameters: VR36 H SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2498913.4	104.8	%	0.15				0.14%
ScR 361.383	327443.7	107.2	%	0.79				0.73%
Ag 328.068†	107.1	0.00070	mg/L	0.000201	0.00349	mg/L	0.001004	28.77%
Al 308.215†	137875.9	82.52	mg/L	1.463	412.6	mg/L	7.32	1.77%
As 188.979†	30.6	0.1045	mg/L	0.00115	0.5224	mg/L	0.00575	1.10%
B 249.677†	50.3	0.00688	mg/L	0.000508	0.03442	mg/L	0.002542	7.39%
Ba 233.527†	2897.5	0.6804	mg/L	0.01316	3.402	mg/L	0.0658	1.93%
Be 313.042†	1320.9	0.00208	mg/L	0.000051	0.01040	mg/L	0.000253	2.43%
Ca 317.933†	182012.9	13.68	mg/L	0.249	68.42	mg/L	1.245	1.82%
Cd 228.802†	1034.2	0.03471	mg/L	0.000666	0.1736	mg/L	0.00333	1.92%
Co 228.616†	958.0	0.02172	mg/L	0.000335	0.1086	mg/L	0.00167	1.54%
Cr 267.716†	331.9	0.05689	mg/L	0.001288	0.2845	mg/L	0.00644	2.26%
Cu 324.752†	29568.7	0.1228	mg/L	0.00260	0.6142	mg/L	0.01302	2.12%
Fe 273.955†	87406.5	66.58	mg/L	1.059	332.9	mg/L	5.30	1.59%
K 766.490†	9021.6	4.729	mg/L	0.1104	23.64	mg/L	0.552	2.33%
Mg 279.077†	17784.3	13.04	mg/L	0.231	65.18	mg/L	1.157	1.77%
Mn 257.610†	81459.3	2.279	mg/L	0.0385	11.39	mg/L	0.193	1.69%
Mo 202.031†	45.7	0.00222	mg/L	0.000247	0.01112	mg/L	0.001233	11.09%
Na 589.592†	9523.8	0.8160	mg/L	0.01467	4.080	mg/L	0.0733	1.80%
Na 330.237†	6.5	0.2278	mg/L	0.07634	1.139	mg/L	0.3817	33.50%
Ni 231.604†	178.0	0.04762	mg/L	0.000921	0.2381	mg/L	0.00460	1.93%
Pb 220.353†	10080.1	1.367	mg/L	0.0233	6.836	mg/L	0.1163	1.70%
Sb 206.836†	26.4	0.00937	mg/L	0.001591	0.04685	mg/L	0.007955	16.98%
Se 196.026†	12.9	0.00946	mg/L	0.003670	0.04731	mg/L	0.018349	38.78%
Si 288.158†	2043.8	0.9825	mg/L	0.01539	4.912	mg/L	0.0770	1.57%
Sn 189.927†	-3.0	0.00136	mg/L	0.000437	0.00682	mg/L	0.002186	32.05%
Sr 421.552†	108574.3	0.1269	mg/L	0.00237	0.6346	mg/L	0.01187	1.87%
Ti 334.903†	63255.5	3.045	mg/L	0.0526	15.23	mg/L	0.263	1.73%
Tl 190.801†	-14.0	0.00042	mg/L	0.002779	0.00211	mg/L	0.013896	658.52%
V 292.402†	13914.6	0.1123	mg/L	0.00235	0.5614	mg/L	0.01174	2.09%
Zn 206.200†	7568.9	2.117	mg/L	0.0375	10.58	mg/L	0.188	1.77%

Sequence No.: 16
Sample ID: VR36 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 320
Date Collected: 11/19/2012 12:17:41 PM
Data Type: Original

Nebulizer Parameters: VR36 I SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR36 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2508686.0	105.2	%	0.10				0.09%
ScR 361.383	328344.1	107.5	%	0.43				0.40%
Ag 328.068†	65.5	0.00043	mg/L	0.000155	0.00215	mg/L	0.000777	36.18%
Al 308.215†	68408.6	40.94	mg/L	0.197	204.7	mg/L	0.98	0.48%
As 188.979†	47.9	0.07909	mg/L	0.002278	0.3954	mg/L	0.01139	2.88%
B 249.677†	39.9	0.00547	mg/L	0.000586	0.02735	mg/L	0.002930	10.71%
Ba 233.527†	3201.8	0.7554	mg/L	0.00775	3.777	mg/L	0.0388	1.03%
Be 313.042†	818.5	0.00129	mg/L	0.000025	0.00644	mg/L	0.000127	1.97%
Ca 317.933†	209604.4	15.76	mg/L	0.094	78.79	mg/L	0.472	0.60%
Cd 228.802†	1158.5	0.03904	mg/L	0.000421	0.1952	mg/L	0.00210	1.08%
Co 228.616†	725.3	0.01738	mg/L	0.000387	0.08688	mg/L	0.001936	2.23%
Cr 267.716†	319.1	0.05428	mg/L	0.000963	0.2714	mg/L	0.00481	1.77%
Cu 324.752†	17411.9	0.07286	mg/L	0.001307	0.3643	mg/L	0.00654	1.79%
Fe 273.955†	67808.1	51.65	mg/L	0.162	258.3	mg/L	0.81	0.31%
K 766.490†	8312.8	4.357	mg/L	0.0070	21.79	mg/L	0.035	0.16%
Mg 279.077†	15006.8	11.00	mg/L	0.040	55.01	mg/L	0.198	0.36%
Mn 257.610†	100094.1	2.800	mg/L	0.0141	14.00	mg/L	0.070	0.50%
Mo 202.031†	51.3	0.00249	mg/L	0.000365	0.01247	mg/L	0.001823	14.62%
Na 589.592†	5021.5	0.4302	mg/L	0.00808	2.151	mg/L	0.0404	1.88%
Na 330.237†	6.2	-0.05439	mg/L	0.050179	-0.2719	mg/L	0.25089	92.26%
Ni 231.604†	173.1	0.04630	mg/L	0.000500	0.2315	mg/L	0.00250	1.08%
Pb 220.353†	9671.5	1.303	mg/L	0.0193	6.516	mg/L	0.0964	1.48%
Sb 206.836†	23.1	0.00769	mg/L	0.001450	0.03846	mg/L	0.007249	18.85%
Se 196.026†	1.8	0.00128	mg/L	0.005557	0.00638	mg/L	0.027784	435.46%
Si 288.158†	3439.8	1.652	mg/L	0.0193	8.261	mg/L	0.0963	1.17%
Sn 189.927†	-1.1	0.00195	mg/L	0.001261	0.00975	mg/L	0.006304	64.66%
Sr 421.552†	120636.3	0.1410	mg/L	0.00076	0.7051	mg/L	0.00382	0.54%
Ti 334.903†	37501.5	1.805	mg/L	0.0119	9.026	mg/L	0.0594	0.66%
Tl 190.801†	-4.3	0.00323	mg/L	0.003055	0.01614	mg/L	0.015273	94.62%
V 292.402†	9480.6	0.07669	mg/L	0.001541	0.3835	mg/L	0.00770	2.01%
Zn 206.200†	7443.6	2.082	mg/L	0.0217	10.41	mg/L	0.108	1.04%

Sequence No.: 17
Sample ID: VR36 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/19/2012 12:21:41 PM
Data Type: Original

Nebulizer Parameters: VR36 J SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2497648.0	104.7	%	0.55				0.52%
ScR 361.383	325775.9	106.7	%	0.35				0.33%
Ag 328.068†	114.4	0.00073	mg/L	0.000054	0.00365	mg/L	0.000270	7.40%
Al 308.215†	65439.2	39.17	mg/L	0.401	195.8	mg/L	2.01	1.02%
As 188.979†	133.5	0.1178	mg/L	0.00343	0.5891	mg/L	0.01717	2.91%
B 249.677†	23.0	0.00315	mg/L	0.000671	0.01574	mg/L	0.003353	21.31%
Ba 233.527†	2636.8	0.6223	mg/L	0.01018	3.111	mg/L	0.0509	1.64%
Be 313.042†	795.0	0.00126	mg/L	0.000038	0.00629	mg/L	0.000189	3.01%
Ca 317.933†	118667.3	8.922	mg/L	0.0763	44.61	mg/L	0.381	0.85%
Cd 228.802†	1112.0	0.03720	mg/L	0.000942	0.1860	mg/L	0.00471	2.53%
Co 228.616†	537.3	0.01275	mg/L	0.000323	0.06375	mg/L	0.001613	2.53%
Cr 267.716†	232.5	0.03967	mg/L	0.000859	0.1983	mg/L	0.00429	2.16%
Cu 324.752†	23435.1	0.09710	mg/L	0.002795	0.4855	mg/L	0.01397	2.88%
Fe 273.955†	54605.4	41.59	mg/L	0.452	208.0	mg/L	2.26	1.09%
K 766.490†	4566.4	2.394	mg/L	0.0342	11.97	mg/L	0.171	1.43%
Mg 279.077†	11660.4	8.548	mg/L	0.1084	42.74	mg/L	0.542	1.27%
Mn 257.610†	78029.2	2.183	mg/L	0.0217	10.92	mg/L	0.109	1.00%
Mo 202.031†	42.6	0.00211	mg/L	0.000286	0.01057	mg/L	0.001429	13.52%
Na 589.592†	4124.7	0.3534	mg/L	0.00425	1.767	mg/L	0.0212	1.20%
Na 330.237†	6.1	0.07678	mg/L	0.185854	0.3839	mg/L	0.92927	242.06%
Ni 231.604†	124.6	0.03334	mg/L	0.001491	0.1667	mg/L	0.00746	4.47%
Pb 220.353†	10256.1	1.381	mg/L	0.0346	6.907	mg/L	0.1732	2.51%
Sb 206.836†	50.0	0.01622	mg/L	0.001008	0.08109	mg/L	0.005041	6.22%
Se 196.026†	7.7	0.00566	mg/L	0.003361	0.02830	mg/L	0.016806	59.38%
Si 288.158†	4799.6	2.304	mg/L	0.0307	11.52	mg/L	0.153	1.33%
Sn 189.927†	0.8	0.00158	mg/L	0.000592	0.00788	mg/L	0.002961	37.59%
Sr 421.552†	77386.8	0.09047	mg/L	0.000973	0.4523	mg/L	0.00486	1.08%
Ti 334.903†	28555.3	1.375	mg/L	0.0113	6.873	mg/L	0.0565	0.82%
Tl 190.801†	-6.6	0.00122	mg/L	0.000470	0.00608	mg/L	0.002350	38.63%
V 292.402†	8140.5	0.06598	mg/L	0.002132	0.3299	mg/L	0.01066	3.23%
Zn 206.200†	4936.2	1.381	mg/L	0.0187	6.903	mg/L	0.0933	1.35%

Sequence No.: 18
Sample ID: VR36 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 322
Date Collected: 11/19/2012 12:25:41 PM
Data Type: Original

Nebulizer Parameters: VR36 K SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR36 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2499970.4	104.8	%	0.30				0.29%
ScR 361.383	323055.5	105.8	%	0.82				0.77%
Ag 328.068†	242.2	0.00152	mg/L	0.000232	0.00761	mg/L	0.001158	15.22%
Al 308.215†	50443.7	30.19	mg/L	0.369	150.9	mg/L	1.85	1.22%
As 188.979†	71.6	0.08109	mg/L	0.001283	0.4054	mg/L	0.00642	1.58%
B 249.677†	13.7	0.00186	mg/L	0.000714	0.00929	mg/L	0.003569	38.42%
Ba 233.527†	1935.9	0.4559	mg/L	0.00565	2.280	mg/L	0.0283	1.24%
Be 313.042†	624.2	0.00098	mg/L	0.000021	0.00491	mg/L	0.000107	2.18%
Ca 317.933†	170716.7	12.84	mg/L	0.168	64.18	mg/L	0.840	1.31%
Cd 228.802†	1316.7	0.04450	mg/L	0.000850	0.2225	mg/L	0.00425	1.91%
Co 228.616†	492.3	0.01148	mg/L	0.000199	0.05742	mg/L	0.000994	1.73%
Cr 267.716†	205.8	0.03505	mg/L	0.000915	0.1753	mg/L	0.00458	2.61%
Cu 324.752†	19080.3	0.07911	mg/L	0.000897	0.3955	mg/L	0.00449	1.13%
Fe 273.955†	47739.2	36.36	mg/L	0.487	181.8	mg/L	2.43	1.34%
K 766.490†	3692.1	1.935	mg/L	0.0245	9.677	mg/L	0.1227	1.27%
Mg 279.077†	10647.6	7.807	mg/L	0.0630	39.03	mg/L	0.315	0.81%
Mn 257.610†	57820.9	1.618	mg/L	0.0217	8.089	mg/L	0.1086	1.34%
Mo 202.031†	51.3	0.00253	mg/L	0.000336	0.01263	mg/L	0.001682	13.33%
Na 589.592†	3305.3	0.2832	mg/L	0.00441	1.416	mg/L	0.0221	1.56%
Na 330.237†	1.8	-0.1727	mg/L	0.16434	-0.8635	mg/L	0.82169	95.16%
Ni 231.604†	112.7	0.03017	mg/L	0.000306	0.1508	mg/L	0.00153	1.01%
Pb 220.353†	16172.9	2.172	mg/L	0.0183	10.86	mg/L	0.091	0.84%
Sb 206.836†	122.1	0.03929	mg/L	0.001743	0.1965	mg/L	0.00872	4.44%
Se 196.026†	9.2	0.00677	mg/L	0.003005	0.03386	mg/L	0.015025	44.37%
Si 288.158†	4044.3	1.942	mg/L	0.0182	9.709	mg/L	0.0909	0.94%
Sn 189.927†	15.6	0.00607	mg/L	0.001260	0.03036	mg/L	0.006301	20.75%
Sr 421.552†	115893.0	0.1355	mg/L	0.00186	0.6774	mg/L	0.00930	1.37%
Ti 334.903†	28630.2	1.378	mg/L	0.0192	6.891	mg/L	0.0962	1.40%
Tl 190.801†	1.1	0.00407	mg/L	0.001063	0.02037	mg/L	0.005317	26.10%
V 292.402†	7634.1	0.06185	mg/L	0.000893	0.3092	mg/L	0.00447	1.44%
Zn 206.200†	5976.9	1.672	mg/L	0.0135	8.358	mg/L	0.0677	0.81%

Sequence No.: 19
Sample ID: VR36 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 323
Date Collected: 11/19/2012 12:29:40 PM
Data Type: Original

Nebulizer Parameters: VR36 L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2488775.6	104.4	%	0.71				0.68%
ScR 361.383	327994.2	107.4	%	1.30				1.21%
Ag 328.068†	-129.7	-0.00078	mg/L	0.000405	-0.00392	mg/L	0.002026	51.72%
Al 308.215†	70108.1	41.96	mg/L	1.026	209.8	mg/L	5.13	2.45%
As 188.979†	-45.7	0.02220	mg/L	0.001300	0.1110	mg/L	0.00650	5.85%
B 249.677†	23.5	0.00321	mg/L	0.001147	0.01604	mg/L	0.005733	35.75%
Ba 233.527†	1595.4	0.3732	mg/L	0.00682	1.866	mg/L	0.0341	1.83%
Be 313.042†	730.8	0.00115	mg/L	0.000032	0.00574	mg/L	0.000160	2.78%
Ca 317.933†	102843.0	7.732	mg/L	0.1820	38.66	mg/L	0.910	2.35%
Cd 228.802†	124.0	0.00403	mg/L	0.000302	0.02013	mg/L	0.001510	7.50%
Co 228.616†	584.8	0.01344	mg/L	0.000264	0.06720	mg/L	0.001322	1.97%
Cr 267.716†	247.7	0.04237	mg/L	0.000923	0.2118	mg/L	0.00462	2.18%
Cu 324.752†	8385.2	0.03576	mg/L	0.000592	0.1788	mg/L	0.00296	1.66%
Fe 273.955†	59127.7	45.04	mg/L	0.954	225.2	mg/L	4.77	2.12%
K 766.490†	3981.9	2.087	mg/L	0.0342	10.44	mg/L	0.171	1.64%
Mg 279.077†	13349.1	9.788	mg/L	0.2354	48.94	mg/L	1.177	2.40%
Mn 257.610†	51477.4	1.440	mg/L	0.0326	7.200	mg/L	0.1628	2.26%
Mo 202.031†	35.7	0.00177	mg/L	0.000500	0.00886	mg/L	0.002499	28.20%
Na 589.592†	3866.4	0.3313	mg/L	0.00649	1.656	mg/L	0.0325	1.96%
Na 330.237†	-9.7	-0.1257	mg/L	0.33413	-0.6285	mg/L	1.67063	265.83%
Ni 231.604†	138.6	0.03709	mg/L	0.001098	0.1854	mg/L	0.00549	2.96%
Pb 220.353†	438.1	0.06691	mg/L	0.001600	0.3345	mg/L	0.00800	2.39%
Sb 206.836†	8.6	0.00317	mg/L	0.002280	0.01586	mg/L	0.011400	71.87%
Se 196.026†	4.7	0.00342	mg/L	0.003362	0.01709	mg/L	0.016810	98.37%
Si 288.158†	5084.2	2.441	mg/L	0.0426	12.20	mg/L	0.213	1.74%
Sn 189.927†	-12.7	-0.00221	mg/L	0.001030	-0.01103	mg/L	0.005148	46.68%
Sr 421.552†	73333.2	0.08573	mg/L	0.002002	0.4286	mg/L	0.01001	2.33%
Ti 334.903†	36078.3	1.737	mg/L	0.0405	8.685	mg/L	0.2027	2.33%
Tl 190.801†	-9.5	0.00029	mg/L	0.000900	0.00143	mg/L	0.004498	315.11%
V 292.402†	8987.0	0.07260	mg/L	0.000626	0.3630	mg/L	0.00313	0.86%
Zn 206.200†	1870.6	0.5231	mg/L	0.00882	2.616	mg/L	0.0441	1.69%

Sequence No.: 20
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 12:33:40 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	2456833.2	103.0	%	0.68				0.66%
ScR 361.383	317011.9	103.8	%	2.28				2.20%
Ag 328.068†	163302.2	1.014	mg/L	0.0082	1.014	mg/L	0.0082	0.81%
Al 308.215†	3328.8	1.958	mg/L	0.0283	1.958	mg/L	0.0283	1.44%
As 188.979†	3467.3	2.078	mg/L	0.0127	2.078	mg/L	0.0127	0.61%
B 249.677†	7059.6	0.9734	mg/L	0.01898	0.9734	mg/L	0.01898	1.95%
Ba 233.527†	4050.0	0.9658	mg/L	0.01296	0.9658	mg/L	0.01296	1.34%
Be 313.042†	615163.4	0.9961	mg/L	0.01942	0.9961	mg/L	0.01942	1.95%
Ca 317.933†	26530.4	1.995	mg/L	0.0363	1.995	mg/L	0.0363	1.82%
Cd 228.802†	30535.4	1.033	mg/L	0.0078	1.033	mg/L	0.0078	0.75%
Co 228.616†	33617.9	0.9993	mg/L	0.00738	0.9993	mg/L	0.00738	0.74%
Cr 267.716†	5930.4	0.9974	mg/L	0.01806	0.9974	mg/L	0.01806	1.81%
Cu 324.752†	244178.4	0.9959	mg/L	0.00248	0.9959	mg/L	0.00248	0.25%
Fe 273.955†	2710.7	2.058	mg/L	0.0439	2.058	mg/L	0.0439	2.13%
K 766.490†	37584.0	19.70	mg/L	0.484	19.70	mg/L	0.484	2.46%
Mg 279.077†	2659.3	1.962	mg/L	0.0387	1.962	mg/L	0.0387	1.97%
Mn 257.610†	36764.7	1.029	mg/L	0.0197	1.029	mg/L	0.0197	1.91%
Mo 202.031†	19012.5	0.9882	mg/L	0.00594	0.9882	mg/L	0.00594	0.60%
Na 589.592†	585858.3	50.19	mg/L	1.075	50.19	mg/L	1.075	2.14%
Na 330.237†	1428.9	51.02	mg/L	0.650	51.02	mg/L	0.650	1.27%
Ni 231.604†	3649.0	0.9763	mg/L	0.01483	0.9763	mg/L	0.01483	1.52%
Pb 220.353†	14789.4	1.982	mg/L	0.0147	1.982	mg/L	0.0147	0.74%
Sb 206.836†	6631.3	2.112	mg/L	0.0145	2.112	mg/L	0.0145	0.69%
Se 196.026†	2774.7	2.053	mg/L	0.0202	2.053	mg/L	0.0202	0.99%
Si 288.158†	4160.7	1.996	mg/L	0.0319	1.996	mg/L	0.0319	1.60%
Sn 189.927†	3796.2	1.021	mg/L	0.0069	1.021	mg/L	0.0069	0.68%
Sr 421.552†	853276.4	0.9975	mg/L	0.02150	0.9975	mg/L	0.02150	2.16%
Ti 334.903†	21064.0	1.013	mg/L	0.0196	1.013	mg/L	0.0196	1.94%
Tl 190.801†	4550.7	1.982	mg/L	0.0110	1.982	mg/L	0.0110	0.55%
V 292.402†	121539.1	1.015	mg/L	0.0068	1.015	mg/L	0.0068	0.67%
Zn 206.200†	3677.6	1.028	mg/L	0.0197	1.028	mg/L	0.0197	1.92%

Sequence No.: 21
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 12:38:00 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	2470619.2	103.6	%	0.19				0.19%
ScR 361.383	321613.6	105.3	%	0.38				0.36%
Ag 328.068†	-27.4	-0.00017	mg/L	0.000286	-0.00017	mg/L	0.000286	168.68%
Al 308.215†	-3.3	-0.00201	mg/L	0.000908	-0.00201	mg/L	0.000908	45.18%
As 188.979†	0.4	0.00023	mg/L	0.001024	0.00023	mg/L	0.001024	438.81%
B 249.677†	9.7	0.00133	mg/L	0.001078	0.00133	mg/L	0.001078	80.87%
Ba 233.527†	-2.4	-0.00057	mg/L	0.000336	-0.00057	mg/L	0.000336	58.76%
Be 313.042†	38.1	0.00006	mg/L	0.000027	0.00006	mg/L	0.000027	43.27%
Ca 317.933†	-10.4	-0.00078	mg/L	0.001029	-0.00078	mg/L	0.001029	131.38%
Cd 228.802†	-10.1	-0.00035	mg/L	0.000135	-0.00035	mg/L	0.000135	39.13%
Co 228.616†	7.7	0.00023	mg/L	0.000126	0.00023	mg/L	0.000126	55.10%
Cr 267.716†	10.2	0.00172	mg/L	0.000799	0.00172	mg/L	0.000799	46.39%
Cu 324.752†	-228.0	-0.00093	mg/L	0.000133	-0.00093	mg/L	0.000133	14.27%
Fe 273.955†	3.0	0.00229	mg/L	0.000785	0.00229	mg/L	0.000785	34.33%
K 766.490†	-76.7	-0.04018	mg/L	0.010197	-0.04018	mg/L	0.010197	25.38%
Mg 279.077†	-6.9	-0.00508	mg/L	0.001555	-0.00508	mg/L	0.001555	30.60%
Mn 257.610†	0.7	0.00002	mg/L	0.000048	0.00002	mg/L	0.000048	246.88%
Mo 202.031†	9.1	0.00048	mg/L	0.000161	0.00048	mg/L	0.000161	33.88%
Na 589.592†	164.0	0.01405	mg/L	0.002620	0.01405	mg/L	0.002620	18.65%
Na 330.237†	1.6	0.05778	mg/L	0.303900	0.05778	mg/L	0.303900	525.95%
Ni 231.604†	8.6	0.00229	mg/L	0.000910	0.00229	mg/L	0.000910	39.70%
Pb 220.353†	-2.4	-0.00032	mg/L	0.000624	-0.00032	mg/L	0.000624	193.37%
Sb 206.836†	7.4	0.00231	mg/L	0.001296	0.00231	mg/L	0.001296	56.03%
Se 196.026†	-2.9	-0.00218	mg/L	0.003507	-0.00218	mg/L	0.003507	161.10%
Si 288.158†	0.6	0.00028	mg/L	0.001866	0.00028	mg/L	0.001866	677.67%
Sn 189.927†	-2.6	-0.00069	mg/L	0.000388	-0.00069	mg/L	0.000388	56.21%
Sr 421.552†	32.8	0.00004	mg/L	0.000048	0.00004	mg/L	0.000048	124.62%
Ti 334.903†	-14.6	-0.00070	mg/L	0.000350	-0.00070	mg/L	0.000350	49.85%
Tl 190.801†	-3.0	-0.00132	mg/L	0.000386	-0.00132	mg/L	0.000386	29.27%
V 292.402†	-3.7	-0.00002	mg/L	0.000096	-0.00002	mg/L	0.000096	416.69%
Zn 206.200†	-1.2	-0.00033	mg/L	0.000621	-0.00033	mg/L	0.000621	190.06%

Sequence No.: 22
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/19/2012 12:42:15 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	222.0 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	2513279.6	105.4	%	0.27				0.25%
ScR 361.383	326014.5	106.8	%	0.08				0.08%
Ag 328.068†	486.5	0.00302	mg/L	0.000049	0.00302	mg/L	0.000049	1.63%
Al 308.215†	83.3	0.04969	mg/L	0.004372	0.04969	mg/L	0.004372	8.80%
As 188.979†	84.8	0.05035	mg/L	0.001641	0.05035	mg/L	0.001641	3.26%
B 249.677†	138.9	0.01916	mg/L	0.000425	0.01916	mg/L	0.000425	2.22%
Ba 233.527†	9.7	0.00230	mg/L	0.001034	0.00230	mg/L	0.001034	44.93%
Be 313.042†	588.2	0.00095	mg/L	0.000017	0.00095	mg/L	0.000017	1.81%
Ca 317.933†	643.3	0.04837	mg/L	0.000646	0.04837	mg/L	0.000646	1.34%
Cd 228.802†	53.0	0.00149	mg/L	0.000063	0.00149	mg/L	0.000063	4.19%
Co 228.616†	125.0	0.00371	mg/L	0.000111	0.00371	mg/L	0.000111	3.00%
Cr 267.716†	36.6	0.00616	mg/L	0.000988	0.00616	mg/L	0.000988	16.05%
Cu 324.752†	257.6	0.00105	mg/L	0.000144	0.00105	mg/L	0.000144	13.73%
Fe 273.955†	70.1	0.05338	mg/L	0.002358	0.05338	mg/L	0.002358	4.42%
K 766.490†	873.4	0.4578	mg/L	0.00970	0.4578	mg/L	0.00970	2.12%
Mg 279.077†	52.2	0.03839	mg/L	0.004056	0.03839	mg/L	0.004056	10.56%
Mn 257.610†	37.1	0.00104	mg/L	0.000011	0.00104	mg/L	0.000011	1.09%
Mo 202.031†	96.0	0.00499	mg/L	0.000222	0.00499	mg/L	0.000222	4.45%
Na 589.592†	5664.5	0.4853	mg/L	0.00087	0.4853	mg/L	0.00087	0.18%
Na 330.237†	13.7	0.4887	mg/L	0.37311	0.4887	mg/L	0.37311	76.35%
Ni 231.604†	43.5	0.01165	mg/L	0.000645	0.01165	mg/L	0.000645	5.54%
Pb 220.353†	146.7	0.01968	mg/L	0.000513	0.01968	mg/L	0.000513	2.61%
Sb 206.836†	155.7	0.04963	mg/L	0.000217	0.04963	mg/L	0.000217	0.44%
Se 196.026†	68.1	0.05038	mg/L	0.004089	0.05038	mg/L	0.004089	8.12%
Si 288.158†	126.2	0.06051	mg/L	0.001666	0.06051	mg/L	0.001666	2.75%
Sn 189.927†	37.7	0.01014	mg/L	0.000880	0.01014	mg/L	0.000880	8.68%
Sr 421.552†	857.4	0.00100	mg/L	0.000045	0.00100	mg/L	0.000045	4.51%
Ti 334.903†	105.6	0.00508	mg/L	0.000873	0.00508	mg/L	0.000873	17.19%
Tl 190.801†	110.7	0.04842	mg/L	0.000700	0.04842	mg/L	0.000700	1.45%
V 292.402†	344.3	0.00289	mg/L	0.000033	0.00289	mg/L	0.000033	1.13%
Zn 206.200†	35.3	0.00987	mg/L	0.000553	0.00987	mg/L	0.000553	5.61%

Sequence No.: 23
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/19/2012 12:46:31 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	221.0 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	2448333.2	102.7	%	0.60				0.59%
ScR 361.383	318568.5	104.3	%	0.95				0.91%
Ag 328.068†	-221.0	-0.00137	mg/L	0.000153	-0.00137	mg/L	0.000153	11.16%
Al 308.215†	324358.9	194.1	mg/L	2.16	194.1	mg/L	2.16	1.11%
As 188.979†	36.5	0.01614	mg/L	0.001253	0.01614	mg/L	0.001253	7.77%
B 249.677†	-14.2	-0.00196	mg/L	0.001512	-0.00196	mg/L	0.001512	77.14%
Ba 233.527†	125.8	-0.00175	mg/L	0.002292	-0.00175	mg/L	0.002292	130.63%
Be 313.042†	27.0	0.00004	mg/L	0.000024	0.00004	mg/L	0.000024	58.13%
Ca 317.933†	1282970.2	96.46	mg/L	1.030	96.46	mg/L	1.030	1.07%
Cd 228.802†	39.9	-0.00062	mg/L	0.000128	-0.00062	mg/L	0.000128	20.65%
Co 228.616†	68.8	-0.00049	mg/L	0.000251	-0.00049	mg/L	0.000251	51.25%
Cr 267.716†	20.2	0.00150	mg/L	0.000876	0.00150	mg/L	0.000876	58.40%
Cu 324.752†	-2197.0	-0.00123	mg/L	0.000036	-0.00123	mg/L	0.000036	2.97%
Fe 273.955†	254800.6	194.1	mg/L	2.24	194.1	mg/L	2.24	1.16%
K 766.490†	-36.8	-0.01928	mg/L	0.017694	-0.01928	mg/L	0.017694	91.75%
Mg 279.077†	136150.9	99.97	mg/L	1.181	99.97	mg/L	1.181	1.18%
Mn 257.610†	32.7	0.00091	mg/L	0.000187	0.00091	mg/L	0.000187	20.69%
Mo 202.031†	37.4	0.00090	mg/L	0.000271	0.00090	mg/L	0.000271	29.96%
Na 589.592†	284.9	0.02441	mg/L	0.001478	0.02441	mg/L	0.001478	6.06%
Na 330.237†	-6.4	-0.2282	mg/L	0.20550	-0.2282	mg/L	0.20550	90.05%
Ni 231.604†	6.7	0.00180	mg/L	0.001224	0.00180	mg/L	0.001224	67.87%
Pb 220.353†	-274.3	0.00174	mg/L	0.000168	0.00174	mg/L	0.000168	9.61%
Sb 206.836†	22.3	0.00696	mg/L	0.004484	0.00696	mg/L	0.004484	64.39%
Se 196.026†	12.3	0.00912	mg/L	0.001018	0.00912	mg/L	0.001018	11.17%
Si 288.158†	-30.0	-0.00230	mg/L	0.003749	-0.00230	mg/L	0.003749	163.16%
Sn 189.927†	-60.3	-0.00426	mg/L	0.001322	-0.00426	mg/L	0.001322	31.02%
Sr 421.552†	3368.5	0.00394	mg/L Conf.	0.000024	0.00394	mg/L	0.000024	0.60%
Ti 334.903†	117.6	0.00106	mg/L	0.000477	0.00106	mg/L	0.000477	45.05%
Tl 190.801†	-60.4	-0.00572	mg/L	0.000851	-0.00572	mg/L	0.000851	14.88%
V 292.402†	1591.0	0.00646	mg/L	0.000433	0.00646	mg/L	0.000433	6.70%
Zn 206.200†	11.6	0.00325	mg/L	0.000785	0.00325	mg/L	0.000785	24.13%

Sequence No.: 24
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/19/2012 12:50:47 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	222.0 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	2466189.3	103.4	%	0.30				0.29%
ScR 361.383	321580.5	105.3	%	1.39				1.32%
Ag 328.068†	157780.6	0.9800	mg/L	0.00103	0.9800	mg/L	0.00103	0.11%
Al 308.215†	321081.6	192.2	mg/L	2.58	192.2	mg/L	2.58	1.34%
As 188.979†	1737.4	1.022	mg/L	0.0049	1.022	mg/L	0.0049	0.48%
B 249.677†	1.2	-0.00179	mg/L	0.000436	-0.00179	mg/L	0.000436	24.29%
Ba 233.527†	4171.2	0.9632	mg/L	0.01290	0.9632	mg/L	0.01290	1.34%
Be 313.042†	615285.8	0.9963	mg/L	0.01314	0.9963	mg/L	0.01314	1.32%
Ca 317.933†	1291477.2	97.10	mg/L	1.253	97.10	mg/L	1.253	1.29%
Cd 228.802†	29698.6	1.009	mg/L	0.0032	1.009	mg/L	0.0032	0.32%
Co 228.616†	31962.7	0.9493	mg/L	0.00241	0.9493	mg/L	0.00241	0.25%
Cr 267.716†	5936.0	0.9968	mg/L	0.01286	0.9968	mg/L	0.01286	1.29%
Cu 324.752†	244225.0	1.004	mg/L	0.0019	1.004	mg/L	0.0019	0.19%
Fe 273.955†	255284.9	194.5	mg/L	2.24	194.5	mg/L	2.24	1.15%
K 766.490†	-146.9	-0.07698	mg/L	0.019648	-0.07698	mg/L	0.019648	25.52%
Mg 279.077†	131555.8	96.59	mg/L	1.240	96.59	mg/L	1.240	1.28%
Mn 257.610†	34602.3	0.9681	mg/L	0.01170	0.9681	mg/L	0.01170	1.21%
Mo 202.031†	43.4	0.00115	mg/L	0.000252	0.00115	mg/L	0.000252	21.82%
Na 589.592†	428.4	0.03670	mg/L	0.000913	0.03670	mg/L	0.000913	2.49%
Na 330.237†	8.7	-0.00473	mg/L	0.145909	-0.00473	mg/L	0.145909	>999.9%
Ni 231.604†	3575.6	0.9566	mg/L	0.01352	0.9566	mg/L	0.01352	1.41%
Pb 220.353†	6951.0	0.9697	mg/L	0.00289	0.9697	mg/L	0.00289	0.30%
Sb 206.836†	3140.5	0.9897	mg/L	0.00333	0.9897	mg/L	0.00333	0.34%
Se 196.026†	1368.4	1.012	mg/L	0.0050	1.012	mg/L	0.0050	0.50%
Si 288.158†	-39.0	-0.00337	mg/L	0.002000	-0.00337	mg/L	0.002000	59.39%
Sn 189.927†	-62.9	-0.00440	mg/L	0.001084	-0.00440	mg/L	0.001084	24.61%
Sr 421.552†	3312.9	0.00387	mg/L	Conf. 0.000058	0.00387	mg/L	0.000058	1.50%
Ti 334.903†	112.4	0.00058	mg/L	0.000173	0.00058	mg/L	0.000173	29.92%
Tl 190.801†	2068.9	0.9168	mg/L	0.00380	0.9168	mg/L	0.00380	0.41%
V 292.402†	115475.7	0.9581	mg/L	0.00052	0.9581	mg/L	0.00052	0.05%
Zn 206.200†	3453.0	0.9657	mg/L	0.01395	0.9657	mg/L	0.01395	1.44%

Sequence No.: 25
Sample ID: CV 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 12:54:36 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	2469138.8	103.5	%	0.67				0.65%
ScR 361.383	325565.4	106.6	%	2.54				2.38%
Ag 328.068†	165436.5	1.028	mg/L	0.0079	1.028	mg/L	0.0079	0.77%
Al 308.215†	3321.7	1.954	mg/L	0.0553	1.954	mg/L	0.0553	2.83%
As 188.979†	3479.6	2.084	mg/L	0.0123	2.084	mg/L	0.0123	0.59%
B 249.677†	6990.4	0.9638	mg/L	0.02790	0.9638	mg/L	0.02790	2.90%
Ba 233.527†	4060.3	0.9683	mg/L	0.02985	0.9683	mg/L	0.02985	3.08%
Be 313.042†	604667.3	0.9791	mg/L	0.03035	0.9791	mg/L	0.03035	3.10%
Ca 317.933†	26544.0	1.996	mg/L	0.0617	1.996	mg/L	0.0617	3.09%
Cd 228.802†	30702.8	1.039	mg/L	0.0016	1.039	mg/L	0.0016	0.16%
Co 228.616†	34033.1	1.012	mg/L	0.0029	1.012	mg/L	0.0029	0.28%
Cr 267.716†	5895.2	0.9914	mg/L	0.03121	0.9914	mg/L	0.03121	3.15%
Cu 324.752†	243945.7	0.9949	mg/L	0.00513	0.9949	mg/L	0.00513	0.52%
Fe 273.955†	2684.2	2.037	mg/L	0.0547	2.037	mg/L	0.0547	2.69%
K 766.490†	36940.1	19.36	mg/L	0.603	19.36	mg/L	0.603	3.11%
Mg 279.077†	2644.1	1.950	mg/L	0.0642	1.950	mg/L	0.0642	3.29%
Mn 257.610†	36153.3	1.012	mg/L	0.0280	1.012	mg/L	0.0280	2.76%
Mo 202.031†	19119.0	0.9938	mg/L	0.00409	0.9938	mg/L	0.00409	0.41%
Na 589.592†	575920.9	49.34	mg/L	1.553	49.34	mg/L	1.553	3.15%
Na 330.237†	1404.0	50.13	mg/L	1.243	50.13	mg/L	1.243	2.48%
Ni 231.604†	3653.7	0.9776	mg/L	0.03386	0.9776	mg/L	0.03386	3.46%
Pb 220.353†	14943.5	2.003	mg/L	0.0026	2.003	mg/L	0.0026	0.13%
Sb 206.836†	6629.9	2.112	mg/L	0.0142	2.112	mg/L	0.0142	0.67%
Se 196.026†	2756.7	2.040	mg/L	0.0176	2.040	mg/L	0.0176	0.86%
Si 288.158†	4103.4	1.968	mg/L	0.0587	1.968	mg/L	0.0587	2.98%
Sn 189.927†	3787.1	1.018	mg/L	0.0059	1.018	mg/L	0.0059	0.57%
Sr 421.552†	835251.4	0.9764	mg/L	0.02986	0.9764	mg/L	0.02986	3.06%
Ti 334.903†	20732.6	0.9973	mg/L	0.03017	0.9973	mg/L	0.03017	3.03%
Tl 190.801†	4589.7	1.999	mg/L	0.0153	1.999	mg/L	0.0153	0.77%
V 292.402†	122963.5	1.027	mg/L	0.0050	1.027	mg/L	0.0050	0.48%
Zn 206.200†	3663.1	1.024	mg/L	0.0317	1.024	mg/L	0.0317	3.10%

Sequence No.: 26
Sample ID: CB5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 12:58:57 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2482983.1	104.1	%	0.82				0.78%
ScR 361.383	323030.3	105.8	%	0.12				0.12%
Ag 328.068†	21.4	0.00013	mg/L	0.000159	0.00013	mg/L	0.000159	119.36%
Al 308.215†	3.5	0.00207	mg/L	0.007588	0.00207	mg/L	0.007588	366.54%
As 188.979†	1.8	0.00107	mg/L	0.001346	0.00107	mg/L	0.001346	126.05%
B 249.677†	8.0	0.00110	mg/L	0.000863	0.00110	mg/L	0.000863	78.12%
Ba 233.527†	-1.2	-0.00029	mg/L	0.000300	-0.00029	mg/L	0.000300	103.15%
Be 313.042†	43.9	0.00007	mg/L	0.000036	0.00007	mg/L	0.000036	50.77%
Ca 317.933†	1.3	0.00010	mg/L	0.000287	0.00010	mg/L	0.000287	284.32%
Cd 228.802†	-2.9	-0.00010	mg/L	0.000223	-0.00010	mg/L	0.000223	213.05%
Co 228.616†	10.9	0.00032	mg/L	0.000214	0.00032	mg/L	0.000214	65.91%
Cr 267.716†	0.5	0.00008	mg/L	0.000777	0.00008	mg/L	0.000777	994.66%
Cu 324.752†	-133.0	-0.00054	mg/L	0.000051	-0.00054	mg/L	0.000051	9.35%
Fe 273.955†	10.5	0.00800	mg/L	0.004652	0.00800	mg/L	0.004652	58.15%
K 766.490†	-49.1	-0.02576	mg/L	0.007008	-0.02576	mg/L	0.007008	27.20%
Mg 279.077†	-3.0	-0.00217	mg/L	0.003036	-0.00217	mg/L	0.003036	139.68%
Mn 257.610†	4.3	0.00012	mg/L	0.000101	0.00012	mg/L	0.000101	84.01%
Mo 202.031†	14.0	0.00073	mg/L	0.000159	0.00073	mg/L	0.000159	21.94%
Na 589.592†	143.8	0.01232	mg/L	0.003954	0.01232	mg/L	0.003954	32.08%
Na 330.237†	-3.1	-0.1101	mg/L	0.47013	-0.1101	mg/L	0.47013	427.00%
Ni 231.604†	8.3	0.00222	mg/L	0.001071	0.00222	mg/L	0.001071	48.15%
Pb 220.353†	1.9	0.00025	mg/L	0.000470	0.00025	mg/L	0.000470	188.16%
Sb 206.836†	9.0	0.00286	mg/L	0.000625	0.00286	mg/L	0.000625	21.85%
Se 196.026†	-1.5	-0.00111	mg/L	0.000793	-0.00111	mg/L	0.000793	71.22%
Si 288.158†	3.3	0.00158	mg/L	0.003393	0.00158	mg/L	0.003393	214.80%
Sn 189.927†	-1.2	-0.00032	mg/L	0.000737	-0.00032	mg/L	0.000737	231.07%
Sr 421.552†	77.8	0.00009	mg/L	0.000062	0.00009	mg/L	0.000062	68.04%
Ti 334.903†	-13.9	-0.00067	mg/L	0.000515	-0.00067	mg/L	0.000515	76.85%
Tl 190.801†	-4.6	-0.00203	mg/L	0.001580	-0.00203	mg/L	0.001580	77.72%
V 292.402†	25.6	0.00021	mg/L	0.000057	0.00021	mg/L	0.000057	26.77%
Zn 206.200†	0.7	0.00019	mg/L	0.000602	0.00019	mg/L	0.000602	314.93%

Sequence No.: 27
Sample ID: VS62 MB1 TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 324
Date Collected: 11/19/2012 1:03:12 PM
Data Type: Original

Nebulizer Parameters: VS62 MB1 TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS62 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2526305.9	105.9	%	0.09				0.08%
ScR 361.383	329352.3	107.9	%	1.22				1.13%
Ag 328.068†	-5.2	-0.00003	mg/L	0.000119	-0.00003	mg/L	0.000119	371.69%
Al 308.215†	16.5	0.00985	mg/L	0.005647	0.00985	mg/L	0.005647	57.35%
As 188.979†	0.1	0.00003	mg/L	0.000759	0.00003	mg/L	0.000759	>999.9%
B 249.677†	6.4	0.00089	mg/L	0.000119	0.00089	mg/L	0.000119	13.38%
Ba 233.527†	-1.6	-0.00039	mg/L	0.000121	-0.00039	mg/L	0.000121	30.77%
Be 313.042†	22.0	0.00004	mg/L	0.000025	0.00004	mg/L	0.000025	71.41%
Ca 317.933†	97.7	0.00734	mg/L	0.000107	0.00734	mg/L	0.000107	1.46%
Cd 228.802†	-8.5	-0.00029	mg/L	0.000038	-0.00029	mg/L	0.000038	13.03%
Co 228.616†	3.5	0.00010	mg/L	0.000018	0.00010	mg/L	0.000018	17.27%
Cr 267.716†	2.9	0.00049	mg/L	0.001002	0.00049	mg/L	0.001002	202.52%
Cu 324.752†	-83.3	-0.00034	mg/L	0.000050	-0.00034	mg/L	0.000050	14.69%
Fe 273.955†	24.2	0.01846	mg/L	0.001084	0.01846	mg/L	0.001084	5.87%
K 766.490†	-69.2	-0.03628	mg/L	0.008509	-0.03628	mg/L	0.008509	23.45%
Mg 279.077†	1.9	0.00141	mg/L	0.003877	0.00141	mg/L	0.003877	274.27%
Mn 257.610†	9.4	0.00026	mg/L	0.000078	0.00026	mg/L	0.000078	29.79%
Mo 202.031†	3.1	0.00016	mg/L	0.000159	0.00016	mg/L	0.000159	97.35%
Na 589.592†	147.2	0.01261	mg/L	0.002963	0.01261	mg/L	0.002963	23.50%
Na 330.237†	4.8	0.1717	mg/L	0.24291	0.1717	mg/L	0.24291	141.45%
Ni 231.604†	8.0	0.00215	mg/L	0.000395	0.00215	mg/L	0.000395	18.37%
Pb 220.353†	-3.4	-0.00045	mg/L	0.000288	-0.00045	mg/L	0.000288	64.35%
Sb 206.836†	1.9	0.00059	mg/L	0.001458	0.00059	mg/L	0.001458	245.22%
Se 196.026†	0.1	0.00009	mg/L	0.001480	0.00009	mg/L	0.001480	>999.9%
Si 288.158†	-3.6	-0.00173	mg/L	0.002038	-0.00173	mg/L	0.002038	117.67%
Sn 189.927†	1.2	0.00033	mg/L	0.000650	0.00033	mg/L	0.000650	195.24%
Sr 421.552†	-6.0	-0.00001	mg/L	0.000018	-0.00001	mg/L	0.000018	251.42%
Ti 334.903†	-25.7	-0.00124	mg/L	0.001243	-0.00124	mg/L	0.001243	100.51%
Tl 190.801†	-2.4	-0.00103	mg/L	0.000838	-0.00103	mg/L	0.000838	81.11%
V 292.402†	-0.8	-0.00000	mg/L	0.000157	-0.00000	mg/L	0.000157	>999.9%
Zn 206.200†	6.5	0.00182	mg/L	0.000410	0.00182	mg/L	0.000410	22.52%

Sequence No.: 28
Sample ID: VS62 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 325
Date Collected: 11/19/2012 1:07:27 PM
Data Type: Original

Nebulizer Parameters: VS62 A TWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS62 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2418612.8	101.4	%	0.18				0.18%
ScR 361.383	325924.5	106.7	%	0.46				0.43%
Ag 328.068†	-47.8	-0.00030	mg/L	0.000163	-0.00030	mg/L	0.000163	54.84%
Al 308.215†	47.7	0.02826	mg/L	0.000905	0.02826	mg/L	0.000905	3.20%
As 188.979†	22.7	0.01155	mg/L	0.002201	0.01155	mg/L	0.002201	19.05%
B 249.677†	1332.2	0.1839	mg/L	0.00075	0.1839	mg/L	0.00075	0.41%
Ba 233.527†	120.5	0.02872	mg/L	0.000303	0.02872	mg/L	0.000303	1.05%
Be 313.042†	53.1	0.00009	mg/L	0.000013	0.00009	mg/L	0.000013	15.58%
Ca 317.933†	424687.6	31.93	mg/L	0.393	31.93	mg/L	0.393	1.23%
Cd 228.802†	9.9	0.00025	mg/L	0.000132	0.00025	mg/L	0.000132	52.42%
Co 228.616†	23.4	0.00069	mg/L	0.000167	0.00069	mg/L	0.000167	24.19%
Cr 267.716†	10.2	0.00118	mg/L	0.000312	0.00118	mg/L	0.000312	26.37%
Cu 324.752†	2018.2	0.00821	mg/L	0.000019	0.00821	mg/L	0.000019	0.23%
Fe 273.955†	218.6	0.1666	mg/L	0.00223	0.1666	mg/L	0.00223	1.34%
K 766.490†	18409.1	9.650	mg/L	0.1123	9.650	mg/L	0.1123	1.16%
Mg 279.077†	3410.3	2.506	mg/L	0.0064	2.506	mg/L	0.0064	0.26%
Mn 257.610†	12242.6	0.3424	mg/L	0.00389	0.3424	mg/L	0.00389	1.14%
Mo 202.031†	316.6	0.01611	mg/L	0.000169	0.01611	mg/L	0.000169	1.05%
Na 589.592†	4917581.0	421.3	mg/L	0.96	421.3	mg/L	0.96	0.23%
Na 330.237†	11823.5	423.1	mg/L	5.44	423.1	mg/L	5.44	1.29%
Ni 231.604†	17.1	0.00458	mg/L	0.000923	0.00458	mg/L	0.000923	20.17%
Pb 220.353†	-9.7	-0.00131	mg/L	0.000999	-0.00131	mg/L	0.000999	76.28%
Sb 206.836†	3.8	0.00108	mg/L	0.000965	0.00108	mg/L	0.000965	89.44%
Se 196.026†	-3.6	-0.00268	mg/L	0.006737	-0.00268	mg/L	0.006737	251.44%
Si 288.158†	5573.8	2.675	mg/L	0.0100	2.675	mg/L	0.0100	0.37%
Sn 189.927†	-38.2	-0.00631	mg/L	0.000186	-0.00631	mg/L	0.000186	2.94%
Sr 421.552†	106677.2	0.1247	mg/L	0.00143	0.1247	mg/L	0.00143	1.15%
Ti 334.903†	42.7	0.00052	mg/L	0.000173	0.00052	mg/L	0.000173	33.38%
Tl 190.801†	7.6	0.00333	mg/L	0.001971	0.00333	mg/L	0.001971	59.12%
V 292.402†	20.4	0.00023	mg/L	0.000124	0.00023	mg/L	0.000124	53.32%
Zn 206.200†	119.2	0.03332	mg/L	0.000078	0.03332	mg/L	0.000078	0.23%

Sequence No.: 29
Sample ID: VS62 B TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 326
Date Collected: 11/19/2012 1:11:44 PM
Data Type: Original

Nebulizer Parameters: VS62 B TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS62 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2427236.5	101.8	%	0.38				0.38%
ScR 361.383	324473.0	106.3	%	0.18				0.17%
Ag 328.068†	-25.8	-0.00016	mg/L	0.000060	-0.00016	mg/L	0.000060	37.58%
Al 308.215†	25.7	0.01510	mg/L	0.002123	0.01510	mg/L	0.002123	14.06%
As 188.979†	19.1	0.00935	mg/L	0.000656	0.00935	mg/L	0.000656	7.01%
B 249.677†	1403.9	0.1938	mg/L	0.00188	0.1938	mg/L	0.00188	0.97%
Ba 233.527†	115.7	0.02759	mg/L	0.000760	0.02759	mg/L	0.000760	2.75%
Be 313.042†	45.7	0.00007	mg/L	0.000013	0.00007	mg/L	0.000013	17.67%
Ca 317.933†	446841.1	33.60	mg/L	0.103	33.60	mg/L	0.103	0.31%
Cd 228.802†	8.1	0.00021	mg/L	0.000058	0.00021	mg/L	0.000058	28.12%
Co 228.616†	24.6	0.00073	mg/L	0.000088	0.00073	mg/L	0.000088	12.14%
Cr 267.716†	11.4	0.00135	mg/L	0.000655	0.00135	mg/L	0.000655	48.54%
Cu 324.752†	1083.4	0.00439	mg/L	0.000078	0.00439	mg/L	0.000078	1.78%
Fe 273.955†	101.1	0.07699	mg/L	0.001149	0.07699	mg/L	0.001149	1.49%
K 766.490†	19274.8	10.10	mg/L	0.029	10.10	mg/L	0.029	0.28%
Mg 279.077†	3560.2	2.617	mg/L	0.0144	2.617	mg/L	0.0144	0.55%
Mn 257.610†	13349.6	0.3733	mg/L	0.00103	0.3733	mg/L	0.00103	0.28%
Mo 202.031†	307.1	0.01560	mg/L	0.000217	0.01560	mg/L	0.000217	1.39%
Na 589.592†	5691320.2	487.6	mg/L	2.05	487.6	mg/L	2.05	0.42%
Na 330.237†	13703.1	490.3	mg/L	2.30	490.3	mg/L	2.30	0.47%
Ni 231.604†	20.8	0.00555	mg/L	0.002721	0.00555	mg/L	0.002721	49.02%
Pb 220.353†	-2.0	-0.00027	mg/L	0.000747	-0.00027	mg/L	0.000747	279.96%
Sb 206.836†	4.9	0.00143	mg/L	0.001046	0.00143	mg/L	0.001046	73.08%
Se 196.026†	-7.4	-0.00550	mg/L	0.001269	-0.00550	mg/L	0.001269	23.06%
Si 288.158†	6035.5	2.897	mg/L	0.0195	2.897	mg/L	0.0195	0.67%
Sn 189.927†	-40.7	-0.00678	mg/L	0.000756	-0.00678	mg/L	0.000756	11.16%
Sr 421.552†	111822.7	0.1307	mg/L	0.00032	0.1307	mg/L	0.00032	0.25%
Ti 334.903†	32.5	-0.00005	mg/L	0.000757	-0.00005	mg/L	0.000757	>999.9%
Tl 190.801†	13.4	0.00590	mg/L	0.000982	0.00590	mg/L	0.000982	16.63%
V 292.402†	-3.1	0.00004	mg/L	0.000185	0.00004	mg/L	0.000185	415.27%
Zn 206.200†	96.3	0.02693	mg/L	0.000954	0.02693	mg/L	0.000954	3.54%

Sequence No.: 30
Sample ID: VS62 C TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 327
Date Collected: 11/19/2012 1:16:06 PM
Data Type: Original

Nebulizer Parameters: VS62 C TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS62 C TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2425883.5	101.7	%	0.58				0.57%
ScR 361.383	326303.5	106.9	%	1.58				1.48%
Ag 328.068†	-17.9	-0.00011	mg/L	0.000393	-0.00011	mg/L	0.000393	353.61%
Al 308.215†	45.3	0.02680	mg/L	0.005177	0.02680	mg/L	0.005177	19.32%
As 188.979†	19.5	0.00967	mg/L	0.001407	0.00967	mg/L	0.001407	14.55%
B 249.677†	1376.0	0.1899	mg/L	0.00336	0.1899	mg/L	0.00336	1.77%
Ba 233.527†	112.0	0.02669	mg/L	0.000722	0.02669	mg/L	0.000722	2.71%
Be 313.042†	31.9	0.00005	mg/L	0.000043	0.00005	mg/L	0.000043	83.17%
Ca 317.933†	436415.1	32.81	mg/L	0.563	32.81	mg/L	0.563	1.71%
Cd 228.802†	8.7	0.00022	mg/L	0.000113	0.00022	mg/L	0.000113	50.45%
Co 228.616†	20.6	0.00060	mg/L	0.000040	0.00060	mg/L	0.000040	6.63%
Cr 267.716†	12.8	0.00161	mg/L	0.000253	0.00161	mg/L	0.000253	15.70%
Cu 324.752†	752.4	0.00305	mg/L	0.000134	0.00305	mg/L	0.000134	4.38%
Fe 273.955†	360.1	0.2743	mg/L	0.00611	0.2743	mg/L	0.00611	2.23%
K 766.490†	19445.2	10.19	mg/L	0.127	10.19	mg/L	0.127	1.24%
Mg 279.077†	3392.9	2.494	mg/L	0.0505	2.494	mg/L	0.0505	2.02%
Mn 257.610†	12301.0	0.3440	mg/L	0.00591	0.3440	mg/L	0.00591	1.72%
Mo 202.031†	356.4	0.01817	mg/L	0.000129	0.01817	mg/L	0.000129	0.71%
Na 589.592†	4340934.7	371.9	mg/L	7.42	371.9	mg/L	7.42	2.00%
Na 330.237†	10381.6	371.5	mg/L	5.77	371.5	mg/L	5.77	1.55%
Ni 231.604†	19.6	0.00524	mg/L	0.000818	0.00524	mg/L	0.000818	15.60%
Pb 220.353†	-3.4	-0.00047	mg/L	0.001008	-0.00047	mg/L	0.001008	216.02%
Sb 206.836†	0.2	-0.00008	mg/L	0.001629	-0.00008	mg/L	0.001629	>999.9%
Se 196.026†	-7.5	-0.00558	mg/L	0.001650	-0.00558	mg/L	0.001650	29.57%
Si 288.158†	5645.9	2.710	mg/L	0.0476	2.710	mg/L	0.0476	1.76%
Sn 189.927†	-37.8	-0.00608	mg/L	0.000772	-0.00608	mg/L	0.000772	12.69%
Sr 421.552†	109498.9	0.1280	mg/L	0.00198	0.1280	mg/L	0.00198	1.55%
Ti 334.903†	57.7	0.00120	mg/L	0.000306	0.00120	mg/L	0.000306	25.60%
Tl 190.801†	7.9	0.00348	mg/L	0.002077	0.00348	mg/L	0.002077	59.69%
V 292.402†	6.4	0.00011	mg/L	0.000039	0.00011	mg/L	0.000039	34.36%
Zn 206.200†	107.1	0.02995	mg/L	0.000925	0.02995	mg/L	0.000925	3.09%

Sequence No.: 31
Sample ID: VS62 MB1SPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 328
Date Collected: 11/19/2012 1:20:23 PM
Data Type: Original

Nebulizer Parameters: VS62 MB1SPK TWC

Analyte	Back Pressure	Flow
All	224.0 kPa	0.75 L/min

Mean Data: VS62 MB1SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2524542.8	105.9	%	0.48				0.45%
ScR 361.383	330924.1	108.4	%	2.44				2.25%
Ag 328.068†	81263.1	0.5047	mg/L	0.00248	0.5047	mg/L	0.00248	0.49%
Al 308.215†	3150.8	1.879	mg/L	0.0442	1.879	mg/L	0.0442	2.35%
As 188.979†	3305.4	1.956	mg/L	0.0040	1.956	mg/L	0.0040	0.20%
B 249.677†	11.5	0.00058	mg/L	0.000318	0.00058	mg/L	0.000318	54.96%
Ba 233.527†	8043.4	1.919	mg/L	0.0460	1.919	mg/L	0.0460	2.40%
Be 313.042†	293393.8	0.4751	mg/L	0.01102	0.4751	mg/L	0.01102	2.32%
Ca 317.933†	122044.2	9.176	mg/L	0.2215	9.176	mg/L	0.2215	2.41%
Cd 228.802†	14928.5	0.4988	mg/L	0.00082	0.4988	mg/L	0.00082	0.17%
Co 228.616†	16517.4	0.4918	mg/L	0.00165	0.4918	mg/L	0.00165	0.34%
Cr 267.716†	2881.2	0.4838	mg/L	0.01066	0.4838	mg/L	0.01066	2.20%
Cu 324.752†	117761.5	0.4805	mg/L	0.00064	0.4805	mg/L	0.00064	0.13%
Fe 273.955†	2509.9	1.908	mg/L	0.0397	1.908	mg/L	0.0397	2.08%
K 766.490†	17576.5	9.213	mg/L	0.2417	9.213	mg/L	0.2417	2.62%
Mg 279.077†	13021.8	9.571	mg/L	0.2130	9.571	mg/L	0.2130	2.23%
Mn 257.610†	17047.6	0.4772	mg/L	0.01062	0.4772	mg/L	0.01062	2.23%
Mo 202.031†	21.6	0.00100	mg/L	0.000248	0.00100	mg/L	0.000248	24.78%
Na 589.592†	110691.9	9.484	mg/L	0.2187	9.484	mg/L	0.2187	2.31%
Na 330.237†	277.3	9.766	mg/L	0.1877	9.766	mg/L	0.1877	1.92%
Ni 231.604†	1786.1	0.4769	mg/L	0.01011	0.4769	mg/L	0.01011	2.12%
Pb 220.353†	14161.9	1.898	mg/L	0.0019	1.898	mg/L	0.0019	0.10%
Sb 206.836†	9.3	-0.00209	mg/L	0.001371	-0.00209	mg/L	0.001371	65.48%
Se 196.026†	2614.1	1.935	mg/L	0.0055	1.935	mg/L	0.0055	0.29%
Si 288.158†	-3.4	0.00136	mg/L	0.000956	0.00136	mg/L	0.000956	70.27%
Sn 189.927†	-14.1	-0.00258	mg/L	0.000570	-0.00258	mg/L	0.000570	22.06%
Sr 421.552†	407064.0	0.4759	mg/L	0.01141	0.4759	mg/L	0.01141	2.40%
Ti 334.903†	2.8	-0.00040	mg/L	0.000454	-0.00040	mg/L	0.000454	113.34%
Tl 190.801†	4360.4	1.903	mg/L	0.0029	1.903	mg/L	0.0029	0.15%
V 292.402†	59029.5	0.4931	mg/L	0.00176	0.4931	mg/L	0.00176	0.36%
Zn 206.200†	1710.3	0.4784	mg/L	0.01040	0.4784	mg/L	0.01040	2.17%

Sequence No.: 32
Sample ID: CV 6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 1:24:23 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2483993.9	104.2	%	0.88				0.84%
ScR 361.383	327854.1	107.4	%	3.16				2.95%
Ag 328.068†	157937.4	0.9810	mg/L	0.00312	0.9810	mg/L	0.00312	0.32%
Al 308.215†	3274.4	1.926	mg/L	0.0697	1.926	mg/L	0.0697	3.62%
As 188.979†	3374.1	2.022	mg/L	0.0364	2.022	mg/L	0.0364	1.80%
B 249.677†	6936.1	0.9563	mg/L	0.02954	0.9563	mg/L	0.02954	3.09%
Ba 233.527†	4119.5	0.9824	mg/L	0.03838	0.9824	mg/L	0.03838	3.91%
Be 313.042†	595589.9	0.9644	mg/L	0.03450	0.9644	mg/L	0.03450	3.58%
Ca 317.933†	26239.4	1.973	mg/L	0.0661	1.973	mg/L	0.0661	3.35%
Cd 228.802†	29649.0	1.003	mg/L	0.0038	1.003	mg/L	0.0038	0.37%
Co 228.616†	33332.9	0.9908	mg/L	0.00210	0.9908	mg/L	0.00210	0.21%
Cr 267.716†	5856.8	0.9850	mg/L	0.03008	0.9850	mg/L	0.03008	3.05%
Cu 324.752†	242269.6	0.9881	mg/L	0.00226	0.9881	mg/L	0.00226	0.23%
Fe 273.955†	2569.8	1.951	mg/L	0.0622	1.951	mg/L	0.0622	3.19%
K 766.490†	36992.3	19.39	mg/L	0.677	19.39	mg/L	0.677	3.49%
Mg 279.077†	2612.9	1.928	mg/L	0.0654	1.928	mg/L	0.0654	3.39%
Mn 257.610†	35287.2	0.9875	mg/L	0.03273	0.9875	mg/L	0.03273	3.31%
Mo 202.031†	19112.7	0.9934	mg/L	0.01900	0.9934	mg/L	0.01900	1.91%
Na 589.592†	581796.0	49.85	mg/L	1.806	49.85	mg/L	1.806	3.62%
Na 330.237†	1395.9	49.84	mg/L	1.328	49.84	mg/L	1.328	2.66%
Ni 231.604†	3648.0	0.9760	mg/L	0.02994	0.9760	mg/L	0.02994	3.07%
Pb 220.353†	14934.6	2.002	mg/L	0.0376	2.002	mg/L	0.0376	1.88%
Sb 206.836†	6447.1	2.053	mg/L	0.0392	2.053	mg/L	0.0392	1.91%
Se 196.026†	2679.6	1.983	mg/L	0.0383	1.983	mg/L	0.0383	1.93%
Si 288.158†	4064.1	1.950	mg/L	0.0607	1.950	mg/L	0.0607	3.12%
Sn 189.927†	3651.1	0.9817	mg/L	0.01725	0.9817	mg/L	0.01725	1.76%
Sr 421.552†	836201.4	0.9775	mg/L	0.03443	0.9775	mg/L	0.03443	3.52%
Ti 334.903†	20523.3	0.9872	mg/L	0.03385	0.9872	mg/L	0.03385	3.43%
Tl 190.801†	4543.1	1.979	mg/L	0.0393	1.979	mg/L	0.0393	1.98%
V 292.402†	118022.7	0.9860	mg/L	0.00292	0.9860	mg/L	0.00292	0.30%
Zn 206.200†	3616.1	1.011	mg/L	0.0347	1.011	mg/L	0.0347	3.43%

Sequence No.: 33
Sample ID: CB 6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 1:28:30 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2481029.3	104.0	%	1.39				1.33%
ScR 361.383	328083.1	107.4	%	0.44				0.41%
Ag 328.068†	9.9	0.00006	mg/L	0.000127	0.00006	mg/L	0.000127	206.75%
Al 308.215†	12.8	0.00766	mg/L	0.001647	0.00766	mg/L	0.001647	21.49%
As 188.979†	-0.8	-0.00049	mg/L	0.002817	-0.00049	mg/L	0.002817	572.42%
B 249.677†	8.2	0.00113	mg/L	0.000519	0.00113	mg/L	0.000519	45.89%
Ba 233.527†	-2.1	-0.00049	mg/L	0.000932	-0.00049	mg/L	0.000932	189.53%
Be 313.042†	90.4	0.00015	mg/L	0.000020	0.00015	mg/L	0.000020	13.61%
Ca 317.933†	86.5	0.00650	mg/L	0.001208	0.00650	mg/L	0.001208	18.59%
Cd 228.802†	-4.6	-0.00015	mg/L	0.000149	-0.00015	mg/L	0.000149	96.20%
Co 228.616†	5.2	0.00016	mg/L	0.000018	0.00016	mg/L	0.000018	11.58%
Cr 267.716†	2.4	0.00041	mg/L	0.000516	0.00041	mg/L	0.000516	126.06%
Cu 324.752†	-26.8	-0.00011	mg/L	0.000089	-0.00011	mg/L	0.000089	81.55%
Fe 273.955†	10.2	0.00773	mg/L	0.002099	0.00773	mg/L	0.002099	27.15%
K 766.490†	-41.9	-0.02198	mg/L	0.011606	-0.02198	mg/L	0.011606	52.81%
Mg 279.077†	-4.8	-0.00350	mg/L	0.001608	-0.00350	mg/L	0.001608	45.92%
Mn 257.610†	6.5	0.00018	mg/L	0.000203	0.00018	mg/L	0.000203	111.27%
Mo 202.031†	12.4	0.00064	mg/L	0.000203	0.00064	mg/L	0.000203	31.46%
Na 589.592†	1041.0	0.08919	mg/L	0.005551	0.08919	mg/L	0.005551	6.22%
Na 330.237†	3.2	0.1151	mg/L	0.21851	0.1151	mg/L	0.21851	189.81%
Ni 231.604†	2.8	0.00074	mg/L	0.000555	0.00074	mg/L	0.000555	75.29%
Pb 220.353†	2.6	0.00035	mg/L	0.000588	0.00035	mg/L	0.000588	170.30%
Sb 206.836†	0.9	0.00028	mg/L	0.001479	0.00028	mg/L	0.001479	524.94%
Se 196.026†	-1.0	-0.00071	mg/L	0.002340	-0.00071	mg/L	0.002340	328.57%
Si 288.158†	3.6	0.00172	mg/L	0.000852	0.00172	mg/L	0.000852	49.52%
Sn 189.927†	1.5	0.00040	mg/L	0.000387	0.00040	mg/L	0.000387	95.88%
Sr 421.552†	151.0	0.00018	mg/L	0.000036	0.00018	mg/L	0.000036	20.57%
Ti 334.903†	-1.8	-0.00009	mg/L	0.000817	-0.00009	mg/L	0.000817	951.58%
Tl 190.801†	4.1	0.00180	mg/L	0.001146	0.00180	mg/L	0.001146	63.79%
V 292.402†	28.2	0.00024	mg/L	0.000142	0.00024	mg/L	0.000142	60.21%
Zn 206.200†	-0.3	-0.00008	mg/L	0.000788	-0.00008	mg/L	0.000788	>999.9%

Analysis Begun

Start Time: 11/19/2012 1:34:03 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1119.sif
Batch ID:
Results Data Set: I2121119
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VS95 MB TWC
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 329
Date Collected: 11/19/2012 1:34:09 PM
Data Type: Original

Nebulizer Parameters: VS95 MB TWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS95 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2525930.0	105.9	%	0.53				0.50%
ScR 361.383	329452.1	107.9	%	0.59				0.55%
Ag 328.068†	2.9	0.00002	mg/L	0.000181	0.00002	mg/L	0.000181	998.53%
Al 308.215†	6.8	0.00405	mg/L	0.003148	0.00405	mg/L	0.003148	77.65%
As 188.979†	2.0	0.00118	mg/L	0.002207	0.00118	mg/L	0.002207	186.69%
B 249.677†	1.7	0.00023	mg/L	0.000597	0.00023	mg/L	0.000597	260.95%
Ba 233.527†	-1.6	-0.00038	mg/L	0.000142	-0.00038	mg/L	0.000142	37.13%
Be 313.042†	22.4	0.00004	mg/L	0.000006	0.00004	mg/L	0.000006	15.61%
Ca 317.933†	108.9	0.00819	mg/L	0.000667	0.00819	mg/L	0.000667	8.15%
Cd 228.802†	-6.4	-0.00023	mg/L	0.000052	-0.00023	mg/L	0.000052	22.87%
Co 228.616†	7.4	0.00022	mg/L	0.000089	0.00022	mg/L	0.000089	40.58%
Cr 267.716†	8.5	0.00143	mg/L	0.001116	0.00143	mg/L	0.001116	78.10%
Cu 324.752†	-2.6	-0.00001	mg/L	0.000152	-0.00001	mg/L	0.000152	>999.9%
Fe 273.955†	7.7	0.00587	mg/L	0.001279	0.00587	mg/L	0.001279	21.79%
K 766.490†	-24.1	-0.01261	mg/L	0.013140	-0.01261	mg/L	0.013140	104.17%
Mg 279.077†	-5.4	-0.00400	mg/L	0.003430	-0.00400	mg/L	0.003430	85.75%
Mn 257.610†	3.1	0.00009	mg/L	0.000084	0.00009	mg/L	0.000084	97.42%
Mo 202.031†	1.6	0.00008	mg/L	0.000216	0.00008	mg/L	0.000216	260.28%
Na 589.592†	674.0	0.05775	mg/L	0.001093	0.05775	mg/L	0.001093	1.89%
Na 330.237†	1.8	0.06487	mg/L	0.241406	0.06487	mg/L	0.241406	372.14%
Ni 231.604†	3.9	0.00105	mg/L	0.001780	0.00105	mg/L	0.001780	169.47%
Pb 220.353†	-1.0	-0.00013	mg/L	0.000303	-0.00013	mg/L	0.000303	239.91%
Sb 206.836†	-7.7	-0.00247	mg/L	0.000999	-0.00247	mg/L	0.000999	40.36%
Se 196.026†	4.5	0.00332	mg/L	0.004434	0.00332	mg/L	0.004434	133.44%
Si 288.158†	3.7	0.00178	mg/L	0.002890	0.00178	mg/L	0.002890	162.30%
Sn 189.927†	1.5	0.00039	mg/L	0.000748	0.00039	mg/L	0.000748	191.29%
Sr 421.552†	1.5	0.00000	mg/L	0.000009	0.00000	mg/L	0.000009	525.06%
Ti 334.903†	-2.7	-0.00013	mg/L	0.000814	-0.00013	mg/L	0.000814	627.31%
Tl 190.801†	-3.1	-0.00135	mg/L	0.001886	-0.00135	mg/L	0.001886	140.16%
V 292.402†	7.2	0.00007	mg/L	0.000095	0.00007	mg/L	0.000095	144.73%
Zn 206.200†	5.1	0.00142	mg/L	0.000149	0.00142	mg/L	0.000149	10.50%

Sequence No.: 2
Sample ID: VS91 MB1 LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 330
Date Collected: 11/19/2012 1:38:28 PM
Data Type: Original

Nebulizer Parameters: VS91 MB1 LEN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS91 MB1 LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2480985.6	104.0	%	0.39				0.37%
ScR 361.383	325779.1	106.7	%	0.64				0.60%
Ag 328.068†	-6.4	-0.00004	mg/L	0.000185	-0.00020	mg/L	0.000926	466.42%
Al 308.215†	-4.4	-0.00262	mg/L	0.006506	-0.01311	mg/L	0.032529	248.03%
As 188.979†	0.1	0.00003	mg/L	0.001181	0.00014	mg/L	0.005905	>999.9%
B 249.677†	53.7	0.00741	mg/L	0.000682	0.03706	mg/L	0.003409	9.20%
Ba 233.527†	7.8	0.00186	mg/L	0.000684	0.00929	mg/L	0.003422	36.83%
Be 313.042†	19.7	0.00003	mg/L	0.000024	0.00016	mg/L	0.000118	73.96%
Ca 317.933†	1913.1	0.1438	mg/L	0.00205	0.7192	mg/L	0.01025	1.43%
Cd 228.802†	0.4	0.00002	mg/L	0.000126	0.00009	mg/L	0.000629	737.96%
Co 228.616†	9.6	0.00029	mg/L	0.000122	0.00144	mg/L	0.000612	42.61%
Cr 267.716†	4.7	0.00079	mg/L	0.000679	0.00396	mg/L	0.003396	85.74%
Cu 324.752†	192.7	0.00079	mg/L	0.000137	0.00393	mg/L	0.000683	17.35%
Fe 273.955†	7.9	0.00598	mg/L	0.000751	0.02991	mg/L	0.003755	12.56%
K 766.490†	4.6	0.00240	mg/L	0.016796	0.01201	mg/L	0.083981	699.20%
Mg 279.077†	10.8	0.00796	mg/L	0.004548	0.03981	mg/L	0.022740	57.12%
Mn 257.610†	2.0	0.00006	mg/L	0.000151	0.00028	mg/L	0.000753	272.34%
Mo 202.031†	1.0	0.00005	mg/L	0.000078	0.00025	mg/L	0.000389	156.89%
Na 589.592†	3261375.6	279.4	mg/L	3.96	1397	mg/L	19.81	1.42%
Na 330.237†	8025.7	287.2	mg/L	3.15	1436	mg/L	15.77	1.10%
Ni 231.604†	20.5	0.00549	mg/L	0.001092	0.02746	mg/L	0.005458	19.87%
Pb 220.353†	-0.7	-0.00009	mg/L	0.000496	-0.00046	mg/L	0.002480	544.64%
Sb 206.836†	-4.5	-0.00142	mg/L	0.000748	-0.00711	mg/L	0.003739	52.61%
Se 196.026†	1.4	0.00103	mg/L	0.003169	0.00514	mg/L	0.015846	308.35%
Si 288.158†	18.1	0.00866	mg/L	0.001486	0.04330	mg/L	0.007429	17.16%
Sn 189.927†	3.5	0.00095	mg/L	0.000673	0.00474	mg/L	0.003365	70.94%
Sr 421.552†	122.4	0.00014	mg/L	0.000015	0.00072	mg/L	0.000077	10.73%
Ti 334.903†	-13.9	-0.00068	mg/L	0.001054	-0.00338	mg/L	0.005272	155.83%
Tl 190.801†	0.3	0.00013	mg/L	0.000738	0.00065	mg/L	0.003688	567.24%
V 292.402†	-0.6	-0.00000	mg/L	0.000032	-0.00001	mg/L	0.000162	>999.9%
Zn 206.200†	8.8	0.00245	mg/L	0.000282	0.01224	mg/L	0.001411	11.52%

Sequence No.: 3
Sample ID: VS91 B LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 331
Date Collected: 11/19/2012 1:43:00 PM
Data Type: Original

Nebulizer Parameters: VS91 B LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 B LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2433526.6	102.0	%	0.83				0.81%
ScR 361.383	318801.2	104.4	%	1.40				1.34%
Ag 328.068†	-354.5	-0.00220	mg/L	0.000104	-0.01101	mg/L	0.000518	4.71%
Al 308.215†	211.4	0.1262	mg/L	0.00269	0.6311	mg/L	0.01345	2.13%
As 188.979†	62.7	0.01574	mg/L	0.001472	0.07868	mg/L	0.007360	9.35%
B 249.677†	-29.1	-0.00400	mg/L	0.001691	-0.02001	mg/L	0.008455	42.26%
Ba 233.527†	857.8	0.2047	mg/L	0.00504	1.023	mg/L	0.0252	2.46%
Be 313.042†	77.7	0.00013	mg/L	0.000033	0.00063	mg/L	0.000163	26.03%
Ca 317.933†	4993068.4	375.4	mg/L	5.62	1877	mg/L	28.11	1.50%
Cd 228.802†	6.9	-0.00001	mg/L	0.000112	-0.00004	mg/L	0.000562	>999.9%
Co 228.616†	17.6	0.00047	mg/L	0.000076	0.00235	mg/L	0.000381	16.23%
Cr 267.716†	326.3	0.05146	mg/L	0.000569	0.2573	mg/L	0.00285	1.11%
Cu 324.752†	4842.6	0.01975	mg/L	0.000284	0.09874	mg/L	0.001422	1.44%
Fe 273.955†	14.3	0.01093	mg/L	0.001345	0.05465	mg/L	0.006723	12.30%
K 766.490†	3985.2	2.089	mg/L	0.0205	10.44	mg/L	0.103	0.98%
Mg 279.077†	88.2	0.06493	mg/L	0.002623	0.3246	mg/L	0.01312	4.04%
Mn 257.610†	53.6	0.00042	mg/L	0.000066	0.00212	mg/L	0.000332	15.69%
Mo 202.031†	268.1	0.00988	mg/L	0.000319	0.04939	mg/L	0.001596	3.23%
Na 589.592†	35509.6	3.042	mg/L	0.0213	15.21	mg/L	0.107	0.70%
Na 330.237†	93.4	3.345	mg/L	0.0359	16.73	mg/L	0.180	1.07%
Ni 231.604†	18.4	0.00491	mg/L	0.001612	0.02455	mg/L	0.008058	32.82%
Pb 220.353†	-25.3	-0.00329	mg/L	0.000719	-0.01645	mg/L	0.003594	21.85%
Sb 206.836†	-0.4	-0.00117	mg/L	0.001757	-0.00585	mg/L	0.008787	150.17%
Se 196.026†	-32.5	-0.02404	mg/L	0.006096	-0.1202	mg/L	0.03048	25.35%
Si 288.158†	1823.4	0.8752	mg/L	0.01467	4.376	mg/L	0.0734	1.68%
Sn 189.927†	-98.3	0.02004	mg/L	0.001308	0.1002	mg/L	0.00654	6.53%
Sr 421.552†	1245990.1	1.457	mg/L	0.0199	7.283	mg/L	0.0994	1.36%
Ti 334.903†	430.2	0.00278	mg/L	0.000122	0.01390	mg/L	0.000610	4.39%
Tl 190.801†	20.7	0.00906	mg/L	0.002638	0.04531	mg/L	0.013190	29.11%
V 292.402†	112.5	0.00117	mg/L	0.000016	0.00584	mg/L	0.000078	1.33%
Zn 206.200†	3.5	0.00098	mg/L	0.000112	0.00491	mg/L	0.000559	11.40%

Sequence No.: 4
Sample ID: VS91 ADUP LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 332
Date Collected: 11/19/2012 1:47:33 PM
Data Type: Original

Nebulizer Parameters: VS91 ADUP LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 ADUP LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2434654.0	102.1	%	0.53				0.52%
ScR 361.383	318675.2	104.4	%	0.72				0.69%
Ag 328.068†	-339.1	-0.00210	mg/L	0.000378	-0.01052	mg/L	0.001891	17.97%
Al 308.215†	-1.5	-0.00121	mg/L	0.001680	-0.00603	mg/L	0.008400	139.24%
As 188.979†	73.2	0.02307	mg/L	0.002525	0.1153	mg/L	0.01263	10.95%
B 249.677†	86.5	0.01194	mg/L	0.001280	0.05972	mg/L	0.006402	10.72%
Ba 233.527†	837.7	0.1999	mg/L	0.00334	0.9994	mg/L	0.01672	1.67%
Be 313.042†	88.5	0.00014	mg/L	0.000018	0.00071	mg/L	0.000091	12.86%
Ca 317.933†	4748158.5	357.0	mg/L	4.45	1785	mg/L	22.27	1.25%
Cd 228.802†	11.5	0.00011	mg/L	0.000039	0.00054	mg/L	0.000196	36.59%
Co 228.616†	13.2	0.00034	mg/L	0.000198	0.00171	mg/L	0.000991	58.09%
Cr 267.716†	76.0	0.00928	mg/L	0.001096	0.04639	mg/L	0.005480	11.81%
Cu 324.752†	3128.4	0.01273	mg/L	0.000198	0.06367	mg/L	0.000991	1.56%
Fe 273.955†	14.1	0.01074	mg/L	0.001194	0.05368	mg/L	0.005969	11.12%
K 766.490†	3766.1	1.974	mg/L	0.0233	9.871	mg/L	0.1166	1.18%
Mg 279.077†	3574.6	2.627	mg/L	0.0560	13.14	mg/L	0.280	2.13%
Mn 257.610†	763.9	0.02035	mg/L	0.000353	0.1017	mg/L	0.00177	1.74%
Mo 202.031†	212.9	0.00721	mg/L	0.000203	0.03605	mg/L	0.001016	2.82%
Na 589.592†	19194.8	1.645	mg/L	0.0205	8.223	mg/L	0.1024	1.25%
Na 330.237†	60.3	2.161	mg/L	0.1231	10.81	mg/L	0.616	5.70%
Ni 231.604†	10.9	0.00294	mg/L	0.000704	0.01468	mg/L	0.003518	23.97%
Pb 220.353†	-26.2	-0.00351	mg/L	0.000588	-0.01756	mg/L	0.002941	16.75%
Sb 206.836†	124.7	0.03934	mg/L	0.000274	0.1967	mg/L	0.00137	0.70%
Se 196.026†	-28.7	-0.02124	mg/L	0.003020	-0.1062	mg/L	0.01510	14.22%
Si 288.158†	17180.1	8.245	mg/L	0.0823	41.22	mg/L	0.411	1.00%
Sn 189.927†	-94.2	0.01888	mg/L	0.000171	0.09440	mg/L	0.000853	0.90%
Sr 421.552†	954168.9	1.115	mg/L	0.0144	5.577	mg/L	0.0721	1.29%
Ti 334.903†	391.9	0.00182	mg/L	0.000118	0.00912	mg/L	0.000590	6.47%
Tl 190.801†	29.4	0.01285	mg/L	0.002602	0.06423	mg/L	0.013009	20.25%
V 292.402†	472.4	0.00398	mg/L	0.000018	0.01991	mg/L	0.000091	0.46%
Zn 206.200†	-0.6	-0.00017	mg/L	0.000451	-0.00083	mg/L	0.002256	270.52%

Sequence No.: 5
Sample ID: VS91 A LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 333
Date Collected: 11/19/2012 1:51:49 PM
Data Type: Original

Nebulizer Parameters: VS91 A LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 A LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2436396.1	102.2	%	1.00				0.98%
ScR 361.383	313613.0	102.7	%	0.88				0.86%
Ag 328.068†	-313.2	-0.00194	mg/L	0.000286	-0.00972	mg/L	0.001432	14.73%
Al 308.215†	1.6	0.00066	mg/L	0.011832	0.00329	mg/L	0.059158	>999.9%
As 188.979†	71.5	0.02274	mg/L	0.002887	0.1137	mg/L	0.01444	12.69%
B 249.677†	82.0	0.01132	mg/L	0.000949	0.05662	mg/L	0.004745	8.38%
Ba 233.527†	813.1	0.1940	mg/L	0.00147	0.9700	mg/L	0.00734	0.76%
Be 313.042†	79.3	0.00013	mg/L	0.000008	0.00064	mg/L	0.000041	6.39%
Ca 317.933†	4590976.3	345.2	mg/L	1.72	1726	mg/L	8.60	0.50%
Cd 228.802†	8.9	0.00003	mg/L	0.000182	0.00014	mg/L	0.000912	670.14%
Co 228.616†	17.2	0.00046	mg/L	0.000048	0.00231	mg/L	0.000240	10.40%
Cr 267.716†	77.7	0.00968	mg/L	0.000890	0.04839	mg/L	0.004451	9.20%
Cu 324.752†	2786.0	0.01134	mg/L	0.000108	0.05669	mg/L	0.000542	0.96%
Fe 273.955†	12.7	0.00970	mg/L	0.001078	0.04850	mg/L	0.005392	11.12%
K 766.490†	3659.7	1.918	mg/L	0.0176	9.592	mg/L	0.0879	0.92%
Mg 279.077†	3466.0	2.548	mg/L	0.0245	12.74	mg/L	0.122	0.96%
Mn 257.610†	740.4	0.01972	mg/L	0.000269	0.09862	mg/L	0.001346	1.36%
Mo 202.031†	206.8	0.00702	mg/L	0.000021	0.03508	mg/L	0.000104	0.30%
Na 589.592†	18660.3	1.599	mg/L	0.0051	7.994	mg/L	0.0254	0.32%
Na 330.237†	57.7	2.067	mg/L	0.1542	10.34	mg/L	0.771	7.46%
Ni 231.604†	12.1	0.00326	mg/L	0.001055	0.01629	mg/L	0.005276	32.39%
Pb 220.353†	-28.4	-0.00379	mg/L	0.000203	-0.01895	mg/L	0.001017	5.37%
Sb 206.836†	126.5	0.03990	mg/L	0.004008	0.1995	mg/L	0.02004	10.04%
Se 196.026†	-27.7	-0.02048	mg/L	0.000748	-0.1024	mg/L	0.00374	3.65%
Si 288.158†	17260.4	8.283	mg/L	0.0505	41.42	mg/L	0.252	0.61%
Sn 189.927†	-95.9	0.01697	mg/L	0.001844	0.08487	mg/L	0.009221	10.87%
Sr 421.552†	925260.3	1.082	mg/L	0.0082	5.408	mg/L	0.0410	0.76%
Ti 334.903†	388.6	0.00223	mg/L	0.000342	0.01113	mg/L	0.001712	15.38%
Tl 190.801†	23.3	0.01018	mg/L	0.001625	0.05091	mg/L	0.008123	15.96%
V 292.402†	417.8	0.00353	mg/L	0.000093	0.01765	mg/L	0.000466	2.64%
Zn 206.200†	2.8	0.00077	mg/L	0.000611	0.00387	mg/L	0.003053	78.92%

Sequence No.: 6
Sample ID: VS91 ASPK LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 334
Date Collected: 11/19/2012 1:56:05 PM
Data Type: Original

Nebulizer Parameters: VS91 ASPK LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 ASPK LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2429936.1	101.9	%	1.50				1.47%
ScR 361.383	314085.3	102.9	%	1.95				1.90%
Ag 328.068†	33731.3	0.2095	mg/L	0.00381	1.048	mg/L	0.0191	1.82%
Al 308.215†	1409.3	0.8403	mg/L	0.01922	4.202	mg/L	0.0961	2.29%
As 188.979†	1485.0	0.8574	mg/L	0.01587	4.287	mg/L	0.0794	1.85%
B 249.677†	97.7	0.01308	mg/L	0.000842	0.06540	mg/L	0.004209	6.44%
Ba 233.527†	4310.1	1.028	mg/L	0.0195	5.141	mg/L	0.0975	1.90%
Be 313.042†	125319.9	0.2029	mg/L	0.00291	1.015	mg/L	0.0145	1.43%
Ca 317.933†	5075702.6	381.6	mg/L	6.72	1908	mg/L	33.58	1.76%
Cd 228.802†	6464.6	0.2158	mg/L	0.00396	1.079	mg/L	0.0198	1.83%
Co 228.616†	6816.5	0.2029	mg/L	0.00342	1.014	mg/L	0.0171	1.69%
Cr 267.716†	1310.2	0.2163	mg/L	0.00399	1.082	mg/L	0.0199	1.84%
Cu 324.752†	55568.0	0.2267	mg/L	0.00410	1.134	mg/L	0.0205	1.81%
Fe 273.955†	1068.8	0.8127	mg/L	0.01908	4.064	mg/L	0.0954	2.35%
K 766.490†	11922.0	6.249	mg/L	0.0714	31.25	mg/L	0.357	1.14%
Mg 279.077†	9399.0	6.908	mg/L	0.1307	34.54	mg/L	0.654	1.89%
Mn 257.610†	8071.0	0.2248	mg/L	0.00454	1.124	mg/L	0.0227	2.02%
Mo 202.031†	225.1	0.00756	mg/L	0.000214	0.03782	mg/L	0.001071	2.83%
Na 589.592†	69075.3	5.918	mg/L	0.0782	29.59	mg/L	0.391	1.32%
Na 330.237†	181.5	6.433	mg/L	0.1348	32.16	mg/L	0.674	2.10%
Ni 231.604†	768.4	0.2052	mg/L	0.00391	1.026	mg/L	0.0195	1.90%
Pb 220.353†	5926.1	0.7942	mg/L	0.01400	3.971	mg/L	0.0700	1.76%
Sb 206.836†	140.7	0.04224	mg/L	0.000971	0.2112	mg/L	0.00485	2.30%
Se 196.026†	1097.2	0.8122	mg/L	0.01089	4.061	mg/L	0.0545	1.34%
Si 288.158†	19101.3	9.168	mg/L	0.1093	45.84	mg/L	0.546	1.19%
Sn 189.927†	-97.2	0.02114	mg/L	0.002317	0.1057	mg/L	0.01158	10.96%
Sr 421.552†	1183059.4	1.383	mg/L	0.0247	6.915	mg/L	0.1234	1.78%
Ti 334.903†	425.8	0.00224	mg/L	0.000493	0.01119	mg/L	0.002466	22.03%
Tl 190.801†	1790.8	0.7815	mg/L	0.01281	3.908	mg/L	0.0640	1.64%
V 292.402†	24435.5	0.2042	mg/L	0.00327	1.021	mg/L	0.0163	1.60%
Zn 206.200†	714.9	0.1999	mg/L	0.00365	0.9997	mg/L	0.01827	1.83%

Sequence No.: 7
Sample ID: VS95 ADUP TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 335
Date Collected: 11/19/2012 2:00:21 PM
Data Type: Original

Nebulizer Parameters: VS95 ADUP TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS95 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2497195.2	104.7	%	0.74				0.71%
ScR 361.383	322917.6	105.7	%	0.58				0.55%
Ag 328.068†	-49.1	-0.00030	mg/L	0.000043	-0.00030	mg/L	0.000043	14.34%
Al 308.215†	1615.3	0.9664	mg/L	0.00856	0.9664	mg/L	0.00856	0.89%
As 188.979†	42.4	0.02231	mg/L	0.001421	0.02231	mg/L	0.001421	6.37%
B 249.677†	2319.0	0.3200	mg/L	0.00070	0.3200	mg/L	0.00070	0.22%
Ba 233.527†	118.7	0.02820	mg/L	0.000472	0.02820	mg/L	0.000472	1.67%
Be 313.042†	31.0	0.00005	mg/L	0.000034	0.00005	mg/L	0.000034	73.12%
Ca 317.933†	868339.4	65.28	mg/L	0.316	65.28	mg/L	0.316	0.48%
Cd 228.802†	10.8	0.00020	mg/L	0.000119	0.00020	mg/L	0.000119	59.01%
Co 228.616†	102.0	0.00296	mg/L	0.000158	0.00296	mg/L	0.000158	5.33%
Cr 267.716†	31.6	0.00324	mg/L	0.000385	0.00324	mg/L	0.000385	11.86%
Cu 324.752†	1444.3	0.00577	mg/L	0.000130	0.00577	mg/L	0.000130	2.26%
Fe 273.955†	995.0	0.7578	mg/L	0.00508	0.7578	mg/L	0.00508	0.67%
K 766.490†	34992.3	18.34	mg/L	0.100	18.34	mg/L	0.100	0.54%
Mg 279.077†	22939.6	16.86	mg/L	0.063	16.86	mg/L	0.063	0.38%
Mn 257.610†	20731.0	0.5797	mg/L	0.00097	0.5797	mg/L	0.00097	0.17%
Mo 202.031†	118.3	0.00545	mg/L	0.000187	0.00545	mg/L	0.000187	3.44%
Na 589.592†	860093.4	73.69	mg/L	0.596	73.69	mg/L	0.596	0.81%
Na 330.237†	2059.2	73.69	mg/L	0.918	73.69	mg/L	0.918	1.25%
Ni 231.604†	23.7	0.00635	mg/L	0.000810	0.00635	mg/L	0.000810	12.75%
Pb 220.353†	6.9	0.00112	mg/L	0.000262	0.00112	mg/L	0.000262	23.30%
Sb 206.836†	9.6	0.00291	mg/L	0.001396	0.00291	mg/L	0.001396	47.93%
Se 196.026†	-14.3	-0.01059	mg/L	0.001645	-0.01059	mg/L	0.001645	15.54%
Si 288.158†	51865.1	24.89	mg/L	0.127	24.89	mg/L	0.127	0.51%
Sn 189.927†	-60.3	-0.00810	mg/L	0.000372	-0.00810	mg/L	0.000372	4.59%
Sr 421.552†	289755.4	0.3387	mg/L	0.00245	0.3387	mg/L	0.00245	0.72%
Ti 334.903†	749.8	0.03299	mg/L	0.000715	0.03299	mg/L	0.000715	2.17%
Tl 190.801†	13.2	0.00580	mg/L	0.001472	0.00580	mg/L	0.001472	25.36%
V 292.402†	1820.8	0.01521	mg/L	0.000037	0.01521	mg/L	0.000037	0.24%
Zn 206.200†	45.7	0.01278	mg/L	0.000517	0.01278	mg/L	0.000517	4.05%

Sequence No.: 8
Sample ID: VS95 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 336
Date Collected: 11/19/2012 2:04:36 PM
Data Type: Original

Nebulizer Parameters: VS95 A TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS95 A TWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2506723.4	105.1	%	0.35				0.33%
ScR 361.383	325335.3	106.5	%	0.67				0.63%
Ag 328.068†	-48.8	-0.00030	mg/L	0.000302	-0.00030	mg/L	0.000302	100.90%
Al 308.215†	1533.8	0.9177	mg/L	0.01045	0.9177	mg/L	0.01045	1.14%
As 188.979†	42.4	0.02231	mg/L	0.001911	0.02231	mg/L	0.001911	8.57%
B 249.677†	2326.7	0.3211	mg/L	0.00212	0.3211	mg/L	0.00212	0.66%
Ba 233.527†	117.4	0.02788	mg/L	0.000389	0.02788	mg/L	0.000389	1.39%
Be 313.042†	7.3	0.00001	mg/L	0.000040	0.00001	mg/L	0.000040	475.71%
Ca 317.933†	864558.0	65.00	mg/L	0.456	65.00	mg/L	0.456	0.70%
Cd 228.802†	4.8	-0.00000	mg/L	0.000229	-0.00000	mg/L	0.000229	>999.9%
Co 228.616†	98.9	0.00287	mg/L	0.000032	0.00287	mg/L	0.000032	1.12%
Cr 267.716†	33.7	0.00358	mg/L	0.001024	0.00358	mg/L	0.001024	28.60%
Cu 324.752†	1419.3	0.00567	mg/L	0.000121	0.00567	mg/L	0.000121	2.14%
Fe 273.955†	990.8	0.7546	mg/L	0.00385	0.7546	mg/L	0.00385	0.51%
K 766.490†	34890.7	18.29	mg/L	0.210	18.29	mg/L	0.210	1.15%
Mg 279.077†	23022.2	16.92	mg/L	0.106	16.92	mg/L	0.106	0.63%
Mn 257.610†	20839.9	0.5828	mg/L	0.00313	0.5828	mg/L	0.00313	0.54%
Mo 202.031†	115.4	0.00530	mg/L	0.000221	0.00530	mg/L	0.000221	4.17%
Na 589.592†	851706.8	72.97	mg/L	0.845	72.97	mg/L	0.845	1.16%
Na 330.237†	2059.1	73.68	mg/L	0.814	73.68	mg/L	0.814	1.10%
Ni 231.604†	23.5	0.00629	mg/L	0.000389	0.00629	mg/L	0.000389	6.18%
Pb 220.353†	8.1	0.00128	mg/L	0.000336	0.00128	mg/L	0.000336	26.33%
Sb 206.836†	4.5	0.00129	mg/L	0.000698	0.00129	mg/L	0.000698	54.07%
Se 196.026†	-16.0	-0.01189	mg/L	0.002911	-0.01189	mg/L	0.002911	24.49%
Si 288.158†	51735.4	24.83	mg/L	0.211	24.83	mg/L	0.211	0.85%
Sn 189.927†	-59.3	-0.00787	mg/L	0.000208	-0.00787	mg/L	0.000208	2.64%
Sr 421.552†	287103.0	0.3356	mg/L	0.00390	0.3356	mg/L	0.00390	1.16%
Ti 334.903†	718.7	0.03150	mg/L	0.000385	0.03150	mg/L	0.000385	1.22%
Tl 190.801†	9.4	0.00411	mg/L	0.000953	0.00411	mg/L	0.000953	23.18%
V 292.402†	1819.9	0.01521	mg/L	0.000356	0.01521	mg/L	0.000356	2.34%
Zn 206.200†	43.4	0.01215	mg/L	0.000236	0.01215	mg/L	0.000236	1.95%

Sequence No.: 9
Sample ID: VS95 ASPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 337
Date Collected: 11/19/2012 2:08:51 PM
Data Type: Original

Nebulizer Parameters: VS95 ASPK TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS95 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2503475.7	105.0	%	0.12				0.12%
ScR 361.383	323834.6	106.0	%	1.09				1.03%
Ag 328.068†	81975.5	0.5092	mg/L	0.00288	0.5092	mg/L	0.00288	0.57%
Al 308.215†	5316.6	3.175	mg/L	0.0426	3.175	mg/L	0.0426	1.34%
As 188.979†	3472.3	2.052	mg/L	0.0078	2.052	mg/L	0.0078	0.38%
B 249.677†	2294.6	0.3157	mg/L	0.00473	0.3157	mg/L	0.00473	1.50%
Ba 233.527†	8483.9	2.024	mg/L	0.0288	2.024	mg/L	0.0288	1.42%
Be 313.042†	306231.1	0.4959	mg/L	0.00374	0.4959	mg/L	0.00374	0.75%
Ca 317.933†	978498.3	73.57	mg/L	0.420	73.57	mg/L	0.420	0.57%
Cd 228.802†	15188.9	0.5070	mg/L	0.00388	0.5070	mg/L	0.00388	0.77%
Co 228.616†	16470.0	0.4902	mg/L	0.00256	0.4902	mg/L	0.00256	0.52%
Cr 267.716†	3022.4	0.5055	mg/L	0.00663	0.5055	mg/L	0.00663	1.31%
Cu 324.752†	127691.1	0.5210	mg/L	0.00311	0.5210	mg/L	0.00311	0.60%
Fe 273.955†	3777.5	2.874	mg/L	0.0392	2.874	mg/L	0.0392	1.37%
K 766.490†	52756.6	27.65	mg/L	0.109	27.65	mg/L	0.109	0.40%
Mg 279.077†	35145.0	25.83	mg/L	0.178	25.83	mg/L	0.178	0.69%
Mn 257.610†	37218.3	1.041	mg/L	0.0068	1.041	mg/L	0.0068	0.66%
Mo 202.031†	118.5	0.00534	mg/L	0.000229	0.00534	mg/L	0.000229	4.30%
Na 589.592†	954909.1	81.81	mg/L	0.552	81.81	mg/L	0.552	0.67%
Na 330.237†	2343.2	83.69	mg/L	1.066	83.69	mg/L	1.066	1.27%
Ni 231.604†	1856.9	0.4959	mg/L	0.00699	0.4959	mg/L	0.00699	1.41%
Pb 220.353†	14113.0	1.892	mg/L	0.0091	1.892	mg/L	0.0091	0.48%
Sb 206.836†	18.5	0.00045	mg/L	0.000265	0.00045	mg/L	0.000265	59.51%
Se 196.026†	2703.1	2.001	mg/L	0.0048	2.001	mg/L	0.0048	0.24%
Si 288.158†	48843.2	23.44	mg/L	0.227	23.44	mg/L	0.227	0.97%
Sn 189.927†	-64.8	-0.00824	mg/L	0.000832	-0.00824	mg/L	0.000832	10.10%
Sr 421.552†	713426.5	0.8340	mg/L	0.00535	0.8340	mg/L	0.00535	0.64%
Ti 334.903†	898.9	0.03967	mg/L	0.001287	0.03967	mg/L	0.001287	3.24%
Tl 190.801†	4404.9	1.922	mg/L	0.0086	1.922	mg/L	0.0086	0.45%
V 292.402†	60796.9	0.5079	mg/L	0.00218	0.5079	mg/L	0.00218	0.43%
Zn 206.200†	1808.5	0.5058	mg/L	0.00717	0.5058	mg/L	0.00717	1.42%

Sequence No.: 10
Sample ID: VS95 MBSPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 338
Date Collected: 11/19/2012 2:12:53 PM
Data Type: Original

Nebulizer Parameters: VS95 MBSPK TWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS95 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2519700.0	105.7	%	0.23				0.22%
ScR 361.383	330798.8	108.3	%	1.00				0.92%
Ag 328.068†	82390.2	0.5117	mg/L	0.00362	0.5117	mg/L	0.00362	0.71%
Al 308.215†	3222.0	1.921	mg/L	0.0175	1.921	mg/L	0.0175	0.91%
As 188.979†	3379.4	2.000	mg/L	0.0014	2.000	mg/L	0.0014	0.07%
B 249.677†	12.9	0.00075	mg/L	0.000553	0.00075	mg/L	0.000553	73.28%
Ba 233.527†	8242.8	1.966	mg/L	0.0126	1.966	mg/L	0.0126	0.64%
Be 313.042†	301798.4	0.4887	mg/L	0.00481	0.4887	mg/L	0.00481	0.98%
Ca 317.933†	125842.8	9.461	mg/L	0.0889	9.461	mg/L	0.0889	0.94%
Cd 228.802†	15203.0	0.5079	mg/L	0.00423	0.5079	mg/L	0.00423	0.83%
Co 228.616†	16840.9	0.5014	mg/L	0.00421	0.5014	mg/L	0.00421	0.84%
Cr 267.716†	2946.0	0.4947	mg/L	0.00344	0.4947	mg/L	0.00344	0.70%
Cu 324.752†	125615.0	0.5126	mg/L	0.00320	0.5126	mg/L	0.00320	0.62%
Fe 273.955†	2553.5	1.942	mg/L	0.0128	1.942	mg/L	0.0128	0.66%
K 766.490†	18134.4	9.506	mg/L	0.0648	9.506	mg/L	0.0648	0.68%
Mg 279.077†	13324.4	9.794	mg/L	0.0808	9.794	mg/L	0.0808	0.82%
Mn 257.610†	17443.5	0.4883	mg/L	0.00398	0.4883	mg/L	0.00398	0.82%
Mo 202.031†	20.0	0.00091	mg/L	0.000083	0.00091	mg/L	0.000083	9.11%
Na 589.592†	112963.3	9.678	mg/L	0.0704	9.678	mg/L	0.0704	0.73%
Na 330.237†	282.9	9.961	mg/L	0.2606	9.961	mg/L	0.2606	2.62%
Ni 231.604†	1825.1	0.4873	mg/L	0.00458	0.4873	mg/L	0.00458	0.94%
Pb 220.353†	14446.9	1.936	mg/L	0.0176	1.936	mg/L	0.0176	0.91%
Sb 206.836†	10.4	-0.00189	mg/L	0.000939	-0.00189	mg/L	0.000939	49.64%
Se 196.026†	2673.2	1.979	mg/L	0.0024	1.979	mg/L	0.0024	0.12%
Si 288.158†	113.7	0.05764	mg/L	0.017805	0.05764	mg/L	0.017805	30.89%
Sn 189.927†	-18.2	-0.00367	mg/L	0.000562	-0.00367	mg/L	0.000562	15.32%
Sr 421.552†	420449.3	0.4915	mg/L	0.00393	0.4915	mg/L	0.00393	0.80%
Ti 334.903†	-1.9	-0.00064	mg/L	0.000432	-0.00064	mg/L	0.000432	67.43%
Tl 190.801†	4459.6	1.946	mg/L	0.0016	1.946	mg/L	0.0016	0.08%
V 292.402†	59847.1	0.4999	mg/L	0.00363	0.4999	mg/L	0.00363	0.73%
Zn 206.200†	1746.0	0.4884	mg/L	0.00309	0.4884	mg/L	0.00309	0.63%

Sequence No.: 11
Sample ID: CV-7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 2:16:54 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	223.0 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	2535834.6	106.3	%	0.44				0.41%
ScR 361.383	329509.4	107.9	%	1.34				1.24%
Ag 328.068†	163053.1	1.013	mg/L	0.0058	1.013	mg/L	0.0058	0.57%
Al 308.215†	3292.9	1.938	mg/L	0.0283	1.938	mg/L	0.0283	1.46%
As 188.979†	3366.6	2.016	mg/L	0.0027	2.016	mg/L	0.0027	0.14%
B 249.677†	7027.8	0.9690	mg/L	0.01290	0.9690	mg/L	0.01290	1.33%
Ba 233.527†	4141.9	0.9877	mg/L	0.01502	0.9877	mg/L	0.01502	1.52%
Be 313.042†	592921.1	0.9601	mg/L	0.01068	0.9601	mg/L	0.01068	1.11%
Ca 317.933†	25248.7	1.898	mg/L	0.0209	1.898	mg/L	0.0209	1.10%
Cd 228.802†	29711.5	1.005	mg/L	0.0044	1.005	mg/L	0.0044	0.44%
Co 228.616†	33374.9	0.9922	mg/L	0.00678	0.9922	mg/L	0.00678	0.68%
Cr 267.716†	5909.4	0.9938	mg/L	0.01563	0.9938	mg/L	0.01563	1.57%
Cu 324.752†	238908.3	0.9744	mg/L	0.00146	0.9744	mg/L	0.00146	0.15%
Fe 273.955†	2604.3	1.977	mg/L	0.0300	1.977	mg/L	0.0300	1.52%
K 766.490†	36644.0	19.21	mg/L	0.274	19.21	mg/L	0.274	1.43%
Mg 279.077†	2642.7	1.949	mg/L	0.0357	1.949	mg/L	0.0357	1.83%
Mn 257.610†	34032.1	0.9524	mg/L	0.01132	0.9524	mg/L	0.01132	1.19%
Mo 202.031†	18602.9	0.9669	mg/L	0.00596	0.9669	mg/L	0.00596	0.62%
Na 589.592†	577810.8	49.51	mg/L	0.500	49.51	mg/L	0.500	1.01%
Na 330.237†	1414.1	50.48	mg/L	0.617	50.48	mg/L	0.617	1.22%
Ni 231.604†	3681.6	0.9850	mg/L	0.01709	0.9850	mg/L	0.01709	1.74%
Pb 220.353†	14513.2	1.945	mg/L	0.0085	1.945	mg/L	0.0085	0.44%
Sb 206.836†	6420.6	2.044	mg/L	0.0059	2.044	mg/L	0.0059	0.29%
Se 196.026†	2670.5	1.976	mg/L	0.0045	1.976	mg/L	0.0045	0.23%
Si 288.158†	4161.8	1.997	mg/L	0.0415	1.997	mg/L	0.0415	2.08%
Sn 189.927†	3637.5	0.9780	mg/L	0.00315	0.9780	mg/L	0.00315	0.32%
Sr 421.552†	831706.0	0.9723	mg/L	0.01022	0.9723	mg/L	0.01022	1.05%
Ti 334.903†	19776.2	0.9512	mg/L	0.01147	0.9512	mg/L	0.01147	1.21%
Tl 190.801†	4507.4	1.963	mg/L	0.0052	1.963	mg/L	0.0052	0.26%
V 292.402†	120549.0	1.007	mg/L	0.0051	1.007	mg/L	0.0051	0.50%
Zn 206.200†	3650.0	1.021	mg/L	0.0179	1.021	mg/L	0.0179	1.75%

Sequence No.: 12
Sample ID: CB 7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 2:22:00 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2538855.2	106.5	%	0.48				0.45%
ScR 361.383	327426.9	107.2	%	0.99				0.93%
Ag 328.068†	21.6	0.00013	mg/L	0.000035	0.00013	mg/L	0.000035	25.97%
Al 308.215†	-6.3	-0.00377	mg/L	0.001857	-0.00377	mg/L	0.001857	49.29%
As 188.979†	-0.8	-0.00051	mg/L	0.002545	-0.00051	mg/L	0.002545	503.57%
B 249.677†	8.6	0.00118	mg/L	0.001219	0.00118	mg/L	0.001219	103.28%
Ba 233.527†	1.2	0.00028	mg/L	0.000450	0.00028	mg/L	0.000450	161.33%
Be 313.042†	75.1	0.00012	mg/L	0.000040	0.00012	mg/L	0.000040	33.02%
Ca 317.933†	342.6	0.02576	mg/L	0.001590	0.02576	mg/L	0.001590	6.17%
Cd 228.802†	-4.4	-0.00015	mg/L	0.000175	-0.00015	mg/L	0.000175	118.89%
Co 228.616†	7.4	0.00022	mg/L	0.000047	0.00022	mg/L	0.000047	21.00%
Cr 267.716†	4.0	0.00067	mg/L	0.000067	0.00067	mg/L	0.000067	9.94%
Cu 324.752†	-62.6	-0.00026	mg/L	0.000060	-0.00026	mg/L	0.000060	23.60%
Fe 273.955†	3.8	0.00287	mg/L	0.000897	0.00287	mg/L	0.000897	31.22%
K 766.490†	-23.7	-0.01242	mg/L	0.011678	-0.01242	mg/L	0.011678	94.00%
Mg 279.077†	-8.3	-0.00611	mg/L	0.001846	-0.00611	mg/L	0.001846	30.23%
Mn 257.610†	5.8	0.00016	mg/L	0.000066	0.00016	mg/L	0.000066	40.75%
Mo 202.031†	10.7	0.00056	mg/L	0.000062	0.00056	mg/L	0.000062	11.13%
Na 589.592†	433.8	0.03717	mg/L	0.001356	0.03717	mg/L	0.001356	3.65%
Na 330.237†	3.2	0.1133	mg/L	0.57014	0.1133	mg/L	0.57014	503.39%
Ni 231.604†	5.5	0.00147	mg/L	0.000443	0.00147	mg/L	0.000443	30.12%
Pb 220.353†	-1.4	-0.00019	mg/L	0.000386	-0.00019	mg/L	0.000386	207.37%
Sb 206.836†	1.3	0.00040	mg/L	0.001011	0.00040	mg/L	0.001011	255.72%
Se 196.026†	2.4	0.00176	mg/L	0.002862	0.00176	mg/L	0.002862	162.38%
Si 288.158†	40.9	0.01960	mg/L	0.006760	0.01960	mg/L	0.006760	34.49%
Sn 189.927†	1.9	0.00051	mg/L	0.000983	0.00051	mg/L	0.000983	193.28%
Sr 421.552†	212.8	0.00025	mg/L	0.000025	0.00025	mg/L	0.000025	10.01%
Ti 334.903†	-11.1	-0.00054	mg/L	0.000877	-0.00054	mg/L	0.000877	162.82%
Tl 190.801†	3.8	0.00164	mg/L	0.001209	0.00164	mg/L	0.001209	73.59%
V 292.402†	-0.4	0.00000	mg/L	0.000224	0.00000	mg/L	0.000224	>999.9%
Zn 206.200†	-2.0	-0.00055	mg/L	0.000354	-0.00055	mg/L	0.000354	64.08%

Sequence No.: 13
Sample ID: VS91 MB2 LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 339
Date Collected: 11/19/2012 2:26:15 PM
Data Type: Original

Nebulizer Parameters: VS91 MB2 LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 MB2 LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2542134.2	106.6	%	0.48				0.45%
ScR 361.383	330388.5	108.2	%	0.45				0.42%
Ag 328.068†	34.4	0.00021	mg/L	0.000050	0.00107	mg/L	0.000249	23.28%
Al 308.215†	-0.6	-0.00038	mg/L	0.004816	-0.00190	mg/L	0.024080	>999.9%
As 188.979†	3.7	0.00210	mg/L	0.001483	0.01048	mg/L	0.007414	70.74%
B 249.677†	108.1	0.01491	mg/L	0.000461	0.07456	mg/L	0.002306	3.09%
Ba 233.527†	2.5	0.00058	mg/L	0.000632	0.00292	mg/L	0.003160	108.13%
Be 313.042†	104.7	0.00017	mg/L	0.000018	0.00085	mg/L	0.000089	10.53%
Ca 317.933†	8186.6	0.6155	mg/L	0.00294	3.077	mg/L	0.0147	0.48%
Cd 228.802†	-2.6	-0.00010	mg/L	0.000055	-0.00051	mg/L	0.000273	53.93%
Co 228.616†	10.0	0.00030	mg/L	0.000180	0.00150	mg/L	0.000899	59.88%
Cr 267.716†	7.9	0.00132	mg/L	0.000993	0.00660	mg/L	0.004965	75.26%
Cu 324.752†	-11.2	-0.00005	mg/L	0.000051	-0.00023	mg/L	0.000256	112.57%
Fe 273.955†	4.4	0.00335	mg/L	0.000908	0.01674	mg/L	0.004539	27.12%
K 766.490†	20.5	0.01076	mg/L	0.011135	0.05379	mg/L	0.055674	103.49%
Mg 279.077†	40.4	0.02972	mg/L	0.008537	0.1486	mg/L	0.04269	28.72%
Mn 257.610†	10.4	0.00029	mg/L	0.000075	0.00145	mg/L	0.000377	25.99%
Mo 202.031†	3.6	0.00018	mg/L	0.000233	0.00091	mg/L	0.001166	127.80%
Na 589.592†	6561.5	0.5622	mg/L	0.00423	2.811	mg/L	0.0212	0.75%
Na 330.237†	20.6	0.7359	mg/L	0.32673	3.679	mg/L	1.6337	44.40%
Ni 231.604†	7.3	0.00196	mg/L	0.000295	0.00980	mg/L	0.001475	15.05%
Pb 220.353†	4.3	0.00057	mg/L	0.000802	0.00286	mg/L	0.004012	140.18%
Sb 206.836†	-3.7	-0.00118	mg/L	0.002244	-0.00592	mg/L	0.011221	189.55%
Se 196.026†	1.8	0.00131	mg/L	0.002291	0.00654	mg/L	0.011457	175.16%
Si 288.158†	77.8	0.03733	mg/L	0.003360	0.1866	mg/L	0.01680	9.00%
Sn 189.927†	-0.1	0.00004	mg/L	0.000809	0.00020	mg/L	0.004045	>999.9%
Sr 421.552†	1201.7	0.00140	mg/L	0.000013	0.00702	mg/L	0.000067	0.95%
Ti 334.903†	-21.0	-0.00104	mg/L	0.001003	-0.00521	mg/L	0.005015	96.25%
Tl 190.801†	-2.1	-0.00092	mg/L	0.001315	-0.00462	mg/L	0.006576	142.39%
V 292.402†	13.9	0.00012	mg/L	0.000182	0.00061	mg/L	0.000910	149.62%
Zn 206.200†	8.5	0.00238	mg/L	0.000250	0.01189	mg/L	0.001250	10.51%

Sequence No.: 14
Sample ID: VS91 C LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 340
Date Collected: 11/19/2012 2:30:30 PM
Data Type: Original

Nebulizer Parameters: VS91 C LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 C LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2444908.4	102.5	%	0.72				0.70%
ScR 361.383	321640.6	105.3	%	2.21				2.10%
Ag 328.068†	-372.2	-0.00231	mg/L	0.000292	-0.01155	mg/L	0.001460	12.63%
Al 308.215†	13.1	0.00760	mg/L	0.005626	0.03798	mg/L	0.028132	74.07%
As 188.979†	74.6	0.02070	mg/L	0.002527	0.1035	mg/L	0.01263	12.21%
B 249.677†	174.5	0.02408	mg/L	0.001104	0.1204	mg/L	0.00552	4.58%
Ba 233.527†	1701.7	0.4060	mg/L	0.00905	2.030	mg/L	0.0453	2.23%
Be 313.042†	64.7	0.00010	mg/L	0.000039	0.00052	mg/L	0.000197	37.75%
Ca 317.933†	5494694.5	413.1	mg/L	8.78	2066	mg/L	43.89	2.12%
Cd 228.802†	31.2	0.00078	mg/L	0.000041	0.00391	mg/L	0.000203	5.18%
Co 228.616†	233.0	0.00686	mg/L	0.000223	0.03432	mg/L	0.001115	3.25%
Cr 267.716†	51.5	0.00452	mg/L	0.000394	0.02260	mg/L	0.001969	8.71%
Cu 324.752†	3718.7	0.01513	mg/L	0.000276	0.07567	mg/L	0.001378	1.82%
Fe 273.955†	23.1	0.01760	mg/L	0.001519	0.08799	mg/L	0.007594	8.63%
K 766.490†	4951.1	2.595	mg/L	0.0397	12.98	mg/L	0.198	1.53%
Mg 279.077†	5028.4	3.696	mg/L	0.1036	18.48	mg/L	0.518	2.80%
Mn 257.610†	10155.7	0.2830	mg/L	0.00767	1.415	mg/L	0.0383	2.71%
Mo 202.031†	197.6	0.00581	mg/L	0.000249	0.02904	mg/L	0.001243	4.28%
Na 589.592†	30593.1	2.621	mg/L	0.0384	13.11	mg/L	0.192	1.47%
Na 330.237†	86.8	3.058	mg/L	0.1272	15.29	mg/L	0.636	4.16%
Ni 231.604†	32.9	0.00882	mg/L	0.001312	0.04411	mg/L	0.006559	14.87%
Pb 220.353†	3827.7	0.5127	mg/L	0.00704	2.564	mg/L	0.0352	1.37%
Sb 206.836†	94.2	0.02963	mg/L	0.000470	0.1481	mg/L	0.00235	1.59%
Se 196.026†	-32.2	-0.02385	mg/L	0.003272	-0.1193	mg/L	0.01636	13.72%
Si 288.158†	34346.2	16.48	mg/L	0.244	82.41	mg/L	1.221	1.48%
Sn 189.927†	-103.8	0.02326	mg/L	0.000770	0.1163	mg/L	0.00385	3.31%
Sr 421.552†	1099245.8	1.285	mg/L	0.0307	6.425	mg/L	0.1537	2.39%
Ti 334.903†	455.5	0.00221	mg/L	0.000673	0.01105	mg/L	0.003365	30.46%
Tl 190.801†	20.2	0.00882	mg/L	0.002643	0.04412	mg/L	0.013214	29.95%
V 292.402†	129.6	0.00115	mg/L	0.000042	0.00576	mg/L	0.000208	3.62%
Zn 206.200†	569.9	0.1594	mg/L	0.00436	0.7970	mg/L	0.02179	2.73%

Sequence No.: 15
Sample ID: VS91 D LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 341
Date Collected: 11/19/2012 2:35:03 PM
Data Type: Original

Nebulizer Parameters: VS91 D LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 D LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2472328.1	103.7	%	0.42				0.40%
ScR 361.383	323868.8	106.1	%	1.23				1.16%
Ag 328.068†	-335.1	-0.00208	mg/L	0.000171	-0.01039	mg/L	0.000854	8.22%
Al 308.215†	5.1	0.00263	mg/L	0.003750	0.01314	mg/L	0.018751	142.68%
As 188.979†	57.8	0.01328	mg/L	0.002202	0.06641	mg/L	0.011010	16.58%
B 249.677†	27.8	0.00385	mg/L	0.000840	0.01923	mg/L	0.004202	21.85%
Ba 233.527†	569.1	0.1358	mg/L	0.00114	0.6789	mg/L	0.00569	0.84%
Be 313.042†	68.3	0.00011	mg/L	0.000015	0.00054	mg/L	0.000077	14.18%
Ca 317.933†	4888442.0	367.5	mg/L	2.27	1838	mg/L	11.36	0.62%
Cd 228.802†	6.5	-0.00000	mg/L	0.000059	-0.00000	mg/L	0.000293	>999.9%
Co 228.616†	16.4	0.00044	mg/L	0.000107	0.00221	mg/L	0.000536	24.20%
Cr 267.716†	344.6	0.05460	mg/L	0.000885	0.2730	mg/L	0.00443	1.62%
Cu 324.752†	4897.2	0.01997	mg/L	0.000300	0.09985	mg/L	0.001501	1.50%
Fe 273.955†	6.4	0.00486	mg/L	0.003353	0.02428	mg/L	0.016767	69.07%
K 766.490†	3166.8	1.660	mg/L	0.0364	8.300	mg/L	0.1822	2.19%
Mg 279.077†	154.3	0.1135	mg/L	0.00149	0.5676	mg/L	0.00744	1.31%
Mn 257.610†	48.5	0.00030	mg/L	0.000125	0.00152	mg/L	0.000627	41.34%
Mo 202.031†	245.5	0.00879	mg/L	0.000240	0.04393	mg/L	0.001201	2.73%
Na 589.592†	29957.5	2.567	mg/L	0.0273	12.83	mg/L	0.136	1.06%
Na 330.237†	83.5	2.991	mg/L	0.1814	14.96	mg/L	0.907	6.06%
Ni 231.604†	14.6	0.00389	mg/L	0.001424	0.01947	mg/L	0.007122	36.58%
Pb 220.353†	-30.4	-0.00400	mg/L	0.000250	-0.01998	mg/L	0.001250	6.25%
Sb 206.836†	8.0	0.00152	mg/L	0.001446	0.00760	mg/L	0.007228	95.15%
Se 196.026†	-31.1	-0.02305	mg/L	0.002096	-0.1152	mg/L	0.01048	9.10%
Si 288.158†	8749.7	4.199	mg/L	0.0544	20.99	mg/L	0.272	1.29%
Sn 189.927†	-94.7	0.02004	mg/L	0.000194	0.1002	mg/L	0.00097	0.97%
Sr 421.552†	1069480.7	1.250	mg/L	0.0163	6.251	mg/L	0.0813	1.30%
Ti 334.903†	408.5	0.00211	mg/L	0.000291	0.01055	mg/L	0.001454	13.78%
Tl 190.801†	24.4	0.01064	mg/L	0.002913	0.05318	mg/L	0.014564	27.39%
V 292.402†	1255.0	0.01068	mg/L	0.000032	0.05342	mg/L	0.000158	0.30%
Zn 206.200†	-0.5	-0.00014	mg/L	0.000519	-0.00071	mg/L	0.002596	367.07%

Sequence No.: 16
Sample ID: VS91 E LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 342
Date Collected: 11/19/2012 2:39:36 PM
Data Type: Original

Nebulizer Parameters: VS91 E LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 E LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2452666.2	102.9	%	0.45				0.44%
ScR 361.383	326503.3	106.9	%	0.76				0.71%
Ag 328.068†	-183.6	-0.00114	mg/L	0.000298	-0.00570	mg/L	0.001489	26.14%
Al 308.215†	469.9	0.2811	mg/L	0.00900	1.405	mg/L	0.0450	3.20%
As 188.979†	50.6	0.02017	mg/L	0.002512	0.1008	mg/L	0.01256	12.45%
B 249.677†	11.8	0.00164	mg/L	0.000820	0.00822	mg/L	0.004100	49.90%
Ba 233.527†	593.6	0.1416	mg/L	0.00210	0.7082	mg/L	0.01051	1.48%
Be 313.042†	16.9	0.00003	mg/L	0.000008	0.00013	mg/L	0.000040	29.31%
Ca 317.933†	2284105.2	171.7	mg/L	1.66	858.6	mg/L	8.29	0.97%
Cd 228.802†	9.4	0.00013	mg/L	0.000055	0.00064	mg/L	0.000273	42.90%
Co 228.616†	16.5	0.00046	mg/L	0.000176	0.00232	mg/L	0.000880	37.90%
Cr 267.716†	189.7	0.03035	mg/L	0.001290	0.1518	mg/L	0.00645	4.25%
Cu 324.752†	5312.4	0.02167	mg/L	0.000123	0.1083	mg/L	0.00062	0.57%
Fe 273.955†	5.1	0.00393	mg/L	0.002210	0.01967	mg/L	0.011051	56.18%
K 766.490†	3806.9	1.995	mg/L	0.0099	9.977	mg/L	0.0495	0.50%
Mg 279.077†	32.5	0.02399	mg/L	0.003418	0.1199	mg/L	0.01709	14.25%
Mn 257.610†	26.8	0.00026	mg/L	0.000138	0.00129	mg/L	0.000689	53.57%
Mo 202.031†	179.4	0.00747	mg/L	0.000138	0.03735	mg/L	0.000691	1.85%
Na 589.592†	3320018.1	284.4	mg/L	1.79	1422	mg/L	8.96	0.63%
Na 330.237†	8060.8	288.4	mg/L	1.08	1442	mg/L	5.42	0.38%
Ni 231.604†	11.7	0.00313	mg/L	0.000765	0.01566	mg/L	0.003823	24.41%
Pb 220.353†	-15.5	-0.00199	mg/L	0.000481	-0.00994	mg/L	0.002403	24.18%
Sb 206.836†	-0.3	-0.00075	mg/L	0.000854	-0.00373	mg/L	0.004270	114.54%
Se 196.026†	-18.2	-0.01348	mg/L	0.003817	-0.06738	mg/L	0.019084	28.32%
Si 288.158†	2249.2	1.079	mg/L	0.0243	5.397	mg/L	0.1214	2.25%
Sn 189.927†	-81.1	-0.00055	mg/L	0.001345	-0.00273	mg/L	0.006723	245.95%
Sr 421.552†	643522.7	0.7523	mg/L	0.00729	3.761	mg/L	0.0364	0.97%
Ti 334.903†	196.8	0.00126	mg/L	0.000384	0.00632	mg/L	0.001918	30.32%
Tl 190.801†	24.9	0.01090	mg/L	0.001515	0.05449	mg/L	0.007576	13.90%
V 292.402†	168.6	0.00154	mg/L	0.000202	0.00770	mg/L	0.001009	13.10%
Zn 206.200†	2.7	0.00076	mg/L	0.000763	0.00381	mg/L	0.003816	100.04%

Sequence No.: 17
Sample ID: VS91 F LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 343
Date Collected: 11/19/2012 2:44:09 PM
Data Type: Original

Nebulizer Parameters: VS91 F LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 F LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2438062.6	102.2	%	0.42				0.41%
ScR 361.383	321930.5	105.4	%	0.56				0.53%
Ag 328.068†	-163.7	-0.00102	mg/L	0.000304	-0.00508	mg/L	0.001522	29.97%
Al 308.215†	275.2	0.1645	mg/L	0.00571	0.8226	mg/L	0.02857	3.47%
As 188.979†	48.0	0.01876	mg/L	0.002086	0.09382	mg/L	0.010431	11.12%
B 249.677†	4.8	0.00067	mg/L	0.000691	0.00333	mg/L	0.003453	103.64%
Ba 233.527†	529.2	0.1263	mg/L	0.00109	0.6313	mg/L	0.00546	0.86%
Be 313.042†	42.4	0.00007	mg/L	0.000009	0.00034	mg/L	0.000043	12.63%
Ca 317.933†	2260139.7	169.9	mg/L	2.55	849.6	mg/L	12.75	1.50%
Cd 228.802†	13.5	0.00028	mg/L	0.000020	0.00139	mg/L	0.000102	7.38%
Co 228.616†	20.4	0.00058	mg/L	0.000247	0.00289	mg/L	0.001237	42.77%
Cr 267.716†	174.4	0.02779	mg/L	0.000570	0.1390	mg/L	0.00285	2.05%
Cu 324.752†	5702.9	0.02326	mg/L	0.000091	0.1163	mg/L	0.00046	0.39%
Fe 273.955†	5.1	0.00389	mg/L	0.002890	0.01947	mg/L	0.014451	74.21%
K 766.490†	3478.3	1.823	mg/L	0.0262	9.116	mg/L	0.1310	1.44%
Mg 279.077†	29.9	0.02205	mg/L	0.001029	0.1103	mg/L	0.00514	4.67%
Mn 257.610†	23.9	0.00018	mg/L	0.000080	0.00091	mg/L	0.000401	44.13%
Mo 202.031†	165.8	0.00678	mg/L	0.000290	0.03390	mg/L	0.001451	4.28%
Na 589.592†	3387084.8	290.2	mg/L	2.20	1451	mg/L	11.00	0.76%
Na 330.237†	8192.6	293.2	mg/L	2.15	1466	mg/L	10.77	0.73%
Ni 231.604†	10.4	0.00279	mg/L	0.001128	0.01396	mg/L	0.005641	40.42%
Pb 220.353†	-16.2	-0.00211	mg/L	0.000542	-0.01054	mg/L	0.002711	25.72%
Sb 206.836†	2.2	0.00010	mg/L	0.000362	0.00050	mg/L	0.001811	359.03%
Se 196.026†	-23.8	-0.01764	mg/L	0.004764	-0.08822	mg/L	0.023822	27.00%
Si 288.158†	3758.2	1.804	mg/L	0.0170	9.018	mg/L	0.0852	0.94%
Sn 189.927†	-78.0	0.00007	mg/L	0.000923	0.00034	mg/L	0.004617	>999.9%
Sr 421.552†	587827.0	0.6872	mg/L	0.01015	3.436	mg/L	0.0507	1.48%
Ti 334.903†	209.0	0.00194	mg/L	0.000291	0.00971	mg/L	0.001454	14.96%
Tl 190.801†	21.6	0.00942	mg/L	0.002487	0.04709	mg/L	0.012437	26.41%
V 292.402†	353.3	0.00306	mg/L	0.000083	0.01532	mg/L	0.000416	2.72%
Zn 206.200†	2.2	0.00062	mg/L	0.000467	0.00311	mg/L	0.002337	75.12%

Sequence No.: 18
Sample ID: VS91 G LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 344
Date Collected: 11/19/2012 2:48:42 PM
Data Type: Original

Nebulizer Parameters: VS91 G LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 G LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2427110.1	101.8	%	0.66				0.65%
ScR 361.383	315304.2	103.2	%	0.69				0.67%
Ag 328.068†	-344.7	-0.00214	mg/L	0.000059	-0.01068	mg/L	0.000293	2.74%
Al 308.215†	9.5	0.00522	mg/L	0.004584	0.02612	mg/L	0.022919	87.75%
As 188.979†	60.6	0.01395	mg/L	0.002272	0.06976	mg/L	0.011358	16.28%
B 249.677†	31.0	0.00429	mg/L	0.000479	0.02143	mg/L	0.002393	11.17%
Ba 233.527†	627.6	0.1497	mg/L	0.00210	0.7487	mg/L	0.01050	1.40%
Be 313.042†	58.7	0.00009	mg/L	0.000016	0.00046	mg/L	0.000080	17.35%
Ca 317.933†	5118450.2	384.8	mg/L	1.51	1924	mg/L	7.54	0.39%
Cd 228.802†	9.1	0.00008	mg/L	0.000210	0.00038	mg/L	0.001051	276.56%
Co 228.616†	19.4	0.00053	mg/L	0.000063	0.00265	mg/L	0.000316	11.95%
Cr 267.716†	308.6	0.04839	mg/L	0.000491	0.2419	mg/L	0.00246	1.02%
Cu 324.752†	5687.3	0.02319	mg/L	0.000327	0.1160	mg/L	0.00164	1.41%
Fe 273.955†	9.5	0.00723	mg/L	0.002369	0.03613	mg/L	0.011843	32.78%
K 766.490†	3201.2	1.678	mg/L	0.0264	8.390	mg/L	0.1320	1.57%
Mg 279.077†	251.0	0.1846	mg/L	0.00535	0.9230	mg/L	0.02675	2.90%
Mn 257.610†	50.6	0.00031	mg/L	0.000163	0.00157	mg/L	0.000815	52.03%
Mo 202.031†	240.5	0.00834	mg/L	0.000294	0.04169	mg/L	0.001468	3.52%
Na 589.592†	31510.0	2.700	mg/L	0.0376	13.50	mg/L	0.188	1.39%
Na 330.237†	83.6	2.995	mg/L	0.2292	14.97	mg/L	1.146	7.65%
Ni 231.604†	18.4	0.00492	mg/L	0.001383	0.02458	mg/L	0.006914	28.13%
Pb 220.353†	-29.4	-0.00388	mg/L	0.001878	-0.01942	mg/L	0.009391	48.36%
Sb 206.836†	10.1	0.00228	mg/L	0.000688	0.01140	mg/L	0.003439	30.15%
Se 196.026†	-32.0	-0.02372	mg/L	0.003498	-0.1186	mg/L	0.01749	14.75%
Si 288.158†	10669.5	5.120	mg/L	0.0586	25.60	mg/L	0.293	1.15%
Sn 189.927†	-100.0	0.02074	mg/L	0.001282	0.1037	mg/L	0.00641	6.18%
Sr 421.552†	1108852.8	1.296	mg/L	0.0064	6.481	mg/L	0.0322	0.50%
Ti 334.903†	422.1	0.00194	mg/L	0.000494	0.00969	mg/L	0.002471	25.51%
Tl 190.801†	24.1	0.01047	mg/L	0.002320	0.05237	mg/L	0.011598	22.15%
V 292.402†	1585.0	0.01340	mg/L	0.000114	0.06701	mg/L	0.000571	0.85%
Zn 206.200†	1.3	0.00036	mg/L	0.000373	0.00180	mg/L	0.001866	103.49%

Sequence No.: 19
Sample ID: VS91 H LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 345
Date Collected: 11/19/2012 2:52:58 PM
Data Type: Original

Nebulizer Parameters: VS91 H LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 H LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2457924.7	103.1	%	0.62				0.61%
ScR 361.383	316856.4	103.8	%	0.66				0.64%
Ag 328.068†	-313.9	-0.00195	mg/L	0.000287	-0.00975	mg/L	0.001435	14.73%
Al 308.215†	150.4	0.08975	mg/L	0.001094	0.4488	mg/L	0.00547	1.22%
As 188.979†	60.8	0.01535	mg/L	0.002324	0.07676	mg/L	0.011619	15.14%
B 249.677†	-29.7	-0.00409	mg/L	0.000556	-0.02043	mg/L	0.002782	13.62%
Ba 233.527†	937.3	0.2236	mg/L	0.00165	1.118	mg/L	0.0082	0.74%
Be 313.042†	59.5	0.00010	mg/L	0.000021	0.00048	mg/L	0.000105	21.96%
Ca 317.933†	4814653.7	362.0	mg/L	3.13	1810	mg/L	15.66	0.87%
Cd 228.802†	5.0	-0.00007	mg/L	0.000104	-0.00034	mg/L	0.000519	154.77%
Co 228.616†	14.1	0.00037	mg/L	0.000046	0.00184	mg/L	0.000228	12.40%
Cr 267.716†	323.2	0.05106	mg/L	0.001338	0.2553	mg/L	0.00669	2.62%
Cu 324.752†	2798.1	0.01141	mg/L	0.000166	0.05704	mg/L	0.000831	1.46%
Fe 273.955†	8.7	0.00673	mg/L	0.001286	0.03367	mg/L	0.006429	19.09%
K 766.490†	3976.4	2.084	mg/L	0.0062	10.42	mg/L	0.031	0.30%
Mg 279.077†	85.3	0.06283	mg/L	0.006561	0.3141	mg/L	0.03281	10.44%
Mn 257.610†	50.2	0.00037	mg/L	0.000046	0.00184	mg/L	0.000231	12.51%
Mo 202.031†	230.7	0.00808	mg/L	0.000403	0.04038	mg/L	0.002014	4.99%
Na 589.592†	32788.6	2.809	mg/L	0.0123	14.05	mg/L	0.062	0.44%
Na 330.237†	94.2	3.375	mg/L	0.1681	16.87	mg/L	0.840	4.98%
Ni 231.604†	9.2	0.00245	mg/L	0.000933	0.01225	mg/L	0.004665	38.08%
Pb 220.353†	-32.8	-0.00430	mg/L	0.000109	-0.02148	mg/L	0.000547	2.55%
Sb 206.836†	-4.8	-0.00254	mg/L	0.000394	-0.01269	mg/L	0.001969	15.52%
Se 196.026†	-28.5	-0.02111	mg/L	0.005539	-0.1055	mg/L	0.02769	26.24%
Si 288.158†	1877.7	0.9012	mg/L	0.01865	4.506	mg/L	0.0933	2.07%
Sn 189.927†	-94.4	0.01943	mg/L	0.000836	0.09715	mg/L	0.004181	4.30%
Sr 421.552†	1206299.8	1.410	mg/L	0.0097	7.051	mg/L	0.0487	0.69%
Ti 334.903†	396.5	0.00180	mg/L	0.000389	0.00898	mg/L	0.001943	21.64%
Tl 190.801†	23.7	0.01035	mg/L	0.001662	0.05176	mg/L	0.008308	16.05%
V 292.402†	81.1	0.00090	mg/L	0.000054	0.00452	mg/L	0.000268	5.94%
Zn 206.200†	1.7	0.00046	mg/L	0.000454	0.00229	mg/L	0.002269	98.91%

Sequence No.: 20
Sample ID: CV 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 2:57:14 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2507886.4	105.2	%	0.46				0.44%
ScR 361.383	325619.4	106.6	%	0.43				0.41%
Ag 328.068†	164466.9	1.022	mg/L	0.0043	1.022	mg/L	0.0043	0.42%
Al 308.215†	3305.7	1.945	mg/L	0.0105	1.945	mg/L	0.0105	0.54%
As 188.979†	3384.0	2.027	mg/L	0.0025	2.027	mg/L	0.0025	0.13%
B 249.677†	7039.5	0.9706	mg/L	0.00707	0.9706	mg/L	0.00707	0.73%
Ba 233.527†	4169.2	0.9943	mg/L	0.00414	0.9943	mg/L	0.00414	0.42%
Be 313.042†	590598.7	0.9563	mg/L	0.00544	0.9563	mg/L	0.00544	0.57%
Ca 317.933†	26360.7	1.982	mg/L	0.0156	1.982	mg/L	0.0156	0.79%
Cd 228.802†	29714.6	1.005	mg/L	0.0033	1.005	mg/L	0.0033	0.33%
Co 228.616†	33535.5	0.9969	mg/L	0.00252	0.9969	mg/L	0.00252	0.25%
Cr 267.716†	5910.8	0.9941	mg/L	0.00450	0.9941	mg/L	0.00450	0.45%
Cu 324.752†	240468.5	0.9808	mg/L	0.00169	0.9808	mg/L	0.00169	0.17%
Fe 273.955†	2579.7	1.958	mg/L	0.0124	1.958	mg/L	0.0124	0.63%
K 766.490†	36844.2	19.31	mg/L	0.149	19.31	mg/L	0.149	0.77%
Mg 279.077†	2637.0	1.945	mg/L	0.0083	1.945	mg/L	0.0083	0.42%
Mn 257.610†	33961.3	0.9504	mg/L	0.00638	0.9504	mg/L	0.00638	0.67%
Mo 202.031†	18645.9	0.9692	mg/L	0.00168	0.9692	mg/L	0.00168	0.17%
Na 589.592†	581953.0	49.86	mg/L	0.332	49.86	mg/L	0.332	0.67%
Na 330.237†	1419.2	50.67	mg/L	0.443	50.67	mg/L	0.443	0.87%
Ni 231.604†	3690.3	0.9874	mg/L	0.00703	0.9874	mg/L	0.00703	0.71%
Pb 220.353†	14534.4	1.948	mg/L	0.0091	1.948	mg/L	0.0091	0.47%
Sb 206.836†	6471.7	2.061	mg/L	0.0032	2.061	mg/L	0.0032	0.15%
Se 196.026†	2689.2	1.990	mg/L	0.0032	1.990	mg/L	0.0032	0.16%
Si 288.158†	4133.4	1.983	mg/L	0.0178	1.983	mg/L	0.0178	0.90%
Sn 189.927†	3642.9	0.9795	mg/L	0.00396	0.9795	mg/L	0.00396	0.40%
Sr 421.552†	836182.7	0.9775	mg/L	0.00725	0.9775	mg/L	0.00725	0.74%
Ti 334.903†	19875.9	0.9560	mg/L	0.00670	0.9560	mg/L	0.00670	0.70%
Tl 190.801†	4548.5	1.981	mg/L	0.0038	1.981	mg/L	0.0038	0.19%
V 292.402†	121201.6	1.012	mg/L	0.0030	1.012	mg/L	0.0030	0.29%
Zn 206.200†	3629.5	1.015	mg/L	0.0055	1.015	mg/L	0.0055	0.54%

Sequence No.: 21
Sample ID: CB 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 3:02:22 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2540599.2	106.5	%	0.14				0.13%
ScR 361.383	329638.9	107.9	%	0.95				0.88%
Ag 328.068†	12.9	0.00008	mg/L	0.000126	0.00008	mg/L	0.000126	157.65%
Al 308.215†	-10.1	-0.00603	mg/L	0.005580	-0.00603	mg/L	0.005580	92.46%
As 188.979†	-0.1	-0.00005	mg/L	0.001184	-0.00005	mg/L	0.001184	>999.9%
B 249.677†	10.0	0.00138	mg/L	0.000418	0.00138	mg/L	0.000418	30.23%
Ba 233.527†	-0.9	-0.00022	mg/L	0.001330	-0.00022	mg/L	0.001330	613.10%
Be 313.042†	52.4	0.00008	mg/L	0.000018	0.00008	mg/L	0.000018	20.90%
Ca 317.933†	671.7	0.05050	mg/L	0.003130	0.05050	mg/L	0.003130	6.20%
Cd 228.802†	-4.0	-0.00013	mg/L	0.000093	-0.00013	mg/L	0.000093	69.45%
Co 228.616†	2.5	0.00007	mg/L	0.000051	0.00007	mg/L	0.000051	69.78%
Cr 267.716†	7.0	0.00119	mg/L	0.000322	0.00119	mg/L	0.000322	27.15%
Cu 324.752†	-62.7	-0.00026	mg/L	0.000078	-0.00026	mg/L	0.000078	30.36%
Fe 273.955†	2.3	0.00173	mg/L	0.000642	0.00173	mg/L	0.000642	37.15%
K 766.490†	-49.9	-0.02614	mg/L	0.016191	-0.02614	mg/L	0.016191	61.95%
Mg 279.077†	-11.7	-0.00860	mg/L	0.005815	-0.00860	mg/L	0.005815	67.61%
Mn 257.610†	3.2	0.00009	mg/L	0.000172	0.00009	mg/L	0.000172	191.39%
Mo 202.031†	14.9	0.00077	mg/L	0.000224	0.00077	mg/L	0.000224	29.05%
Na 589.592†	578.2	0.04954	mg/L	0.002251	0.04954	mg/L	0.002251	4.54%
Na 330.237†	-0.8	-0.02831	mg/L	0.179175	-0.02831	mg/L	0.179175	632.85%
Ni 231.604†	6.7	0.00179	mg/L	0.001643	0.00179	mg/L	0.001643	91.58%
Pb 220.353†	-3.8	-0.00051	mg/L	0.000787	-0.00051	mg/L	0.000787	154.02%
Sb 206.836†	0.1	0.00003	mg/L	0.002229	0.00003	mg/L	0.002229	>999.9%
Se 196.026†	4.4	0.00328	mg/L	0.001207	0.00328	mg/L	0.001207	36.80%
Si 288.158†	17.7	0.00847	mg/L	0.005582	0.00847	mg/L	0.005582	65.89%
Sn 189.927†	3.4	0.00091	mg/L	0.000856	0.00091	mg/L	0.000856	94.03%
Sr 421.552†	247.4	0.00029	mg/L	0.000021	0.00029	mg/L	0.000021	7.42%
Ti 334.903†	3.7	0.00018	mg/L	0.000666	0.00018	mg/L	0.000666	379.55%
Tl 190.801†	0.3	0.00013	mg/L	0.001862	0.00013	mg/L	0.001862	>999.9%
V 292.402†	10.0	0.00009	mg/L	0.000153	0.00009	mg/L	0.000153	172.04%
Zn 206.200†	-0.4	-0.00011	mg/L	0.000646	-0.00011	mg/L	0.000646	596.33%

Sequence No.: 22
Sample ID: VR35 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 346
Date Collected: 11/19/2012 3:06:37 PM
Data Type: Original

Nebulizer Parameters: VR35 MB1 SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2593583.0	108.8	%	0.32				0.29%
ScR 361.383	336241.4	110.1	%	0.32				0.29%
Ag 328.068†	4.1	0.00003	mg/L	0.000033	0.00005	mg/L	0.000066	129.95%
Al 308.215†	-4.6	-0.00273	mg/L	0.008172	-0.00546	mg/L	0.016344	299.61%
As 188.979†	2.2	0.00129	mg/L	0.000714	0.00258	mg/L	0.001428	55.32%
B 249.677†	3.8	0.00052	mg/L	0.000939	0.00105	mg/L	0.001879	178.94%
Ba 233.527†	-1.1	-0.00026	mg/L	0.000613	-0.00052	mg/L	0.001226	235.94%
Be 313.042†	6.2	0.00001	mg/L	0.000036	0.00002	mg/L	0.000073	359.88%
Ca 317.933†	887.7	0.06674	mg/L	0.008726	0.1335	mg/L	0.01745	13.07%
Cd 228.802†	-10.5	-0.00037	mg/L	0.000046	-0.00073	mg/L	0.000091	12.46%
Co 228.616†	6.8	0.00020	mg/L	0.000054	0.00041	mg/L	0.000108	26.30%
Cr 267.716†	7.5	0.00127	mg/L	0.000562	0.00253	mg/L	0.001123	44.33%
Cu 324.752†	-83.2	-0.00034	mg/L	0.000161	-0.00068	mg/L	0.000321	47.34%
Fe 273.955†	2.7	0.00208	mg/L	0.001631	0.00416	mg/L	0.003261	78.35%
K 766.490†	-41.0	-0.02147	mg/L	0.013007	-0.04294	mg/L	0.026013	60.58%
Mg 279.077†	-0.5	-0.00034	mg/L	0.000396	-0.00069	mg/L	0.000792	114.92%
Mn 257.610†	-2.5	-0.00007	mg/L	0.000139	-0.00014	mg/L	0.000279	195.05%
Mo 202.031†	1.7	0.00009	mg/L	0.000095	0.00018	mg/L	0.000190	108.30%
Na 589.592†	529.0	0.04532	mg/L	0.001886	0.09064	mg/L	0.003773	4.16%
Na 330.237†	1.3	0.04668	mg/L	0.071884	0.09337	mg/L	0.143767	153.98%
Ni 231.604†	6.8	0.00181	mg/L	0.000343	0.00362	mg/L	0.000686	18.96%
Pb 220.353†	-8.5	-0.00114	mg/L	0.000635	-0.00228	mg/L	0.001271	55.76%
Sb 206.836†	-3.7	-0.00119	mg/L	0.001467	-0.00239	mg/L	0.002934	122.97%
Se 196.026†	3.0	0.00222	mg/L	0.002357	0.00444	mg/L	0.004714	106.07%
Si 288.158†	4.5	0.00217	mg/L	0.000639	0.00434	mg/L	0.001278	29.42%
Sn 189.927†	-1.5	-0.00041	mg/L	0.000435	-0.00082	mg/L	0.000870	106.76%
Sr 421.552†	235.8	0.00028	mg/L	0.000030	0.00055	mg/L	0.000060	10.85%
Ti 334.903†	-11.5	-0.00056	mg/L	0.000542	-0.00112	mg/L	0.001083	97.16%
Tl 190.801†	-1.7	-0.00075	mg/L	0.001142	-0.00150	mg/L	0.002284	152.58%
V 292.402†	-13.7	-0.00011	mg/L	0.000168	-0.00022	mg/L	0.000335	154.46%
Zn 206.200†	5.5	0.00153	mg/L	0.000360	0.00306	mg/L	0.000720	23.53%

Sequence No.: 23
Sample ID: VR35 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 347
Date Collected: 11/19/2012 3:10:53 PM
Data Type: Original

Nebulizer Parameters: VR35 B SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2575137.8	108.0	%	0.71				0.66%
ScR 361.383	337948.4	110.7	%	1.43				1.29%
Ag 328.068†	-76.7	-0.00046	mg/L	0.000199	-0.00229	mg/L	0.000997	43.57%
Al 308.215†	44371.6	26.56	mg/L	0.259	132.8	mg/L	1.29	0.97%
As 188.979†	34.9	0.05492	mg/L	0.000914	0.2746	mg/L	0.00457	1.66%
B 249.677†	10.0	0.00135	mg/L	0.001402	0.00676	mg/L	0.007008	103.67%
Ba 233.527†	809.4	0.1872	mg/L	0.00209	0.9361	mg/L	0.01045	1.12%
Be 313.042†	545.5	0.00086	mg/L	0.000029	0.00428	mg/L	0.000147	3.43%
Ca 317.933†	77438.8	5.822	mg/L	0.0607	29.11	mg/L	0.303	1.04%
Cd 228.802†	307.7	0.01009	mg/L	0.000087	0.05043	mg/L	0.000433	0.86%
Co 228.616†	450.7	0.01060	mg/L	0.000102	0.05298	mg/L	0.000511	0.96%
Cr 267.716†	240.2	0.04098	mg/L	0.000494	0.2049	mg/L	0.00247	1.20%
Cu 324.752†	9575.0	0.04034	mg/L	0.000202	0.2017	mg/L	0.00101	0.50%
Fe 273.955†	47048.8	35.84	mg/L	0.385	179.2	mg/L	1.93	1.08%
K 766.490†	4741.7	2.485	mg/L	0.0230	12.43	mg/L	0.115	0.93%
Mg 279.077†	10699.3	7.845	mg/L	0.1133	39.22	mg/L	0.567	1.44%
Mn 257.610†	27281.3	0.7634	mg/L	0.00859	3.817	mg/L	0.0429	1.13%
Mo 202.031†	22.5	0.00111	mg/L	0.000068	0.00553	mg/L	0.000340	6.15%
Na 589.592†	3724.5	0.3191	mg/L	0.00316	1.596	mg/L	0.0158	0.99%
Na 330.237†	2.3	0.2178	mg/L	0.11702	1.089	mg/L	0.5851	53.72%
Ni 231.604†	115.3	0.03084	mg/L	0.002231	0.1542	mg/L	0.01115	7.23%
Pb 220.353†	5307.7	0.7159	mg/L	0.00144	3.580	mg/L	0.0072	0.20%
Sb 206.836†	8.6	0.00295	mg/L	0.001921	0.01476	mg/L	0.009603	65.06%
Se 196.026†	5.5	0.00403	mg/L	0.003400	0.02015	mg/L	0.017001	84.39%
Si 288.158†	1680.5	0.8074	mg/L	0.01012	4.037	mg/L	0.0506	1.25%
Sn 189.927†	-1.1	0.00061	mg/L	0.000229	0.00306	mg/L	0.001145	37.41%
Sr 421.552†	65522.0	0.07660	mg/L	0.000688	0.3830	mg/L	0.00344	0.90%
Ti 334.903†	25156.4	1.211	mg/L	0.0120	6.056	mg/L	0.0599	0.99%
Tl 190.801†	-6.6	0.00065	mg/L	0.001485	0.00323	mg/L	0.007426	229.67%
V 292.402†	7803.5	0.06326	mg/L	0.000434	0.3163	mg/L	0.00217	0.69%
Zn 206.200†	1513.5	0.4233	mg/L	0.00768	2.117	mg/L	0.0384	1.81%

Sequence No.: 24
Sample ID: VR35 D SWC C
Analyst: BA BA 11/20/12
Dilution: 5.000000X

Autosampler Location: 348
Date Collected: 11/19/2012 3:14:52 PM
Data Type: Original

Nebulizer Parameters: VR35 D SWC C

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 D SWC C

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2572040.0	107.9	%	0.37				0.34%
ScR 361.383	337373.9	110.5	%	0.90				0.82%
Ag 328.068†	-214.1	-0.00131	mg/L	0.000106	-0.00655	mg/L	0.000530	8.09%
Al 308.215†	47910.3	28.67	mg/L	0.241	143.4	mg/L	1.21	0.84%
As 188.979†	-62.1	0.00229	mg/L	0.001562	0.01147	mg/L	0.007809	68.08%
B 249.677†	7.3	0.00098	mg/L	0.000585	0.00489	mg/L	0.002926	59.82%
Ba 233.527†	1270.2	0.2973	mg/L	0.00270	1.487	mg/L	0.0135	0.91%
Be 313.042†	599.6	0.00094	mg/L	0.000025	0.00471	mg/L	0.000125	2.66%
Ca 317.933†	82068.7	6.170	mg/L	0.0544	30.85	mg/L	0.272	0.88%
Cd 228.802†	26.8	0.00086	mg/L	0.000059	0.00429	mg/L	0.000294	6.86%
Co 228.616†	482.0	0.01121	mg/L	0.000173	0.05605	mg/L	0.000865	1.54%
Cr 267.716†	244.2	0.04161	mg/L	0.000650	0.2080	mg/L	0.00325	1.56%
Cu 324.752†	6035.2	0.02581	mg/L	0.000033	0.1290	mg/L	0.00017	0.13%
Fe 273.955†	45667.9	34.79	mg/L	0.193	173.9	mg/L	0.97	0.56%
K 766.490†	4163.4	2.182	mg/L	0.0101	10.91	mg/L	0.051	0.46%
Mg 279.077†	11324.7	8.305	mg/L	0.0627	41.53	mg/L	0.314	0.76%
Mn 257.610†	18414.6	0.5152	mg/L	0.00318	2.576	mg/L	0.0159	0.62%
Mo 202.031†	23.0	0.00113	mg/L	0.000163	0.00564	mg/L	0.000815	14.46%
Na 589.592†	4389.9	0.3761	mg/L	0.00404	1.881	mg/L	0.0202	1.07%
Na 330.237†	-0.2	0.2517	mg/L	0.03900	1.258	mg/L	0.1950	15.49%
Ni 231.604†	124.9	0.03340	mg/L	0.001200	0.1670	mg/L	0.00600	3.59%
Pb 220.353†	121.8	0.02178	mg/L	0.000303	0.1089	mg/L	0.00152	1.39%
Sb 206.836†	-11.1	-0.00329	mg/L	0.002440	-0.01647	mg/L	0.012198	74.06%
Se 196.026†	3.4	0.00249	mg/L	0.005853	0.01247	mg/L	0.029265	234.68%
Si 288.158†	1780.0	0.8552	mg/L	0.00556	4.276	mg/L	0.0278	0.65%
Sn 189.927†	-13.0	-0.00253	mg/L	0.000617	-0.01267	mg/L	0.003083	24.33%
Sr 421.552†	85276.3	0.09969	mg/L	0.000740	0.4984	mg/L	0.00370	0.74%
Ti 334.903†	28629.4	1.378	mg/L	0.0083	6.892	mg/L	0.0415	0.60%
Tl 190.801†	-9.9	-0.00093	mg/L	0.000769	-0.00463	mg/L	0.003847	83.11%
V 292.402†	7776.0	0.06294	mg/L	0.000232	0.3147	mg/L	0.00116	0.37%
Zn 206.200†	592.3	0.1656	mg/L	0.00197	0.8282	mg/L	0.00987	1.19%

Sequence No.: 25
Sample ID: VR35 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 349
Date Collected: 11/19/2012 3:18:50 PM
Data Type: Original

Nebulizer Parameters: VR35 D SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2587023.1	108.5	%	0.29				0.27%
ScR 361.383	336668.8	110.2	%	0.71				0.64%
Ag 328.068†	-162.7	-0.00099	mg/L	0.000200	-0.00497	mg/L	0.001000	20.13%
Al 308.215†	43692.4	26.15	mg/L	0.570	130.7	mg/L	2.85	2.18%
As 188.979†	-54.6	0.00641	mg/L	0.002243	0.03206	mg/L	0.011214	34.98%
B 249.677†	6.1	0.00082	mg/L	0.000798	0.00409	mg/L	0.003990	97.56%
Ba 233.527†	1027.8	0.2397	mg/L	0.00587	1.199	mg/L	0.0294	2.45%
Be 313.042†	577.5	0.00091	mg/L	0.000041	0.00453	mg/L	0.000207	4.57%
Ca 317.933†	85741.7	6.446	mg/L	0.1377	32.23	mg/L	0.688	2.14%

Cd 228.802†	10.6	0.00029 mg/L	0.000131	0.00144 mg/L	0.000653	45.39%
Co 228.616†	416.4	0.00930 mg/L	0.000231	0.04650 mg/L	0.001154	2.48%
Cr 267.716†	234.0	0.03989 mg/L	0.000323	0.1995 mg/L	0.00162	0.81%
Cu 324.752†	4937.3	0.02127 mg/L	0.000700	0.1064 mg/L	0.00350	3.29%
Fe 273.955†	43717.2	33.30 mg/L	0.879	166.5 mg/L	4.39	2.64%
K 766.490†	4562.5	2.392 mg/L	0.0415	11.96 mg/L	0.208	1.74%
Mg 279.077†	10394.6	7.622 mg/L	0.1686	38.11 mg/L	0.843	2.21%
Mn 257.610†	16905.2	0.4730 mg/L	0.01163	2.365 mg/L	0.0582	2.46%
Mo 202.031†	15.2	0.00072 mg/L	0.000294	0.00360 mg/L	0.001469	40.83%
Na 589.592†	4408.9	0.3777 mg/L	0.00313	1.889 mg/L	0.0156	0.83%
Na 330.237†	0.1	0.2842 mg/L	0.05702	1.421 mg/L	0.2851	20.06%
Ni 231.604†	117.5	0.03143 mg/L	0.000906	0.1571 mg/L	0.00453	2.88%
Pb 220.353†	130.2	0.02237 mg/L	0.001272	0.1119 mg/L	0.00636	5.69%
Sb 206.836†	-5.1	-0.00141 mg/L	0.001890	-0.00704 mg/L	0.009452	134.24%
Se 196.026†	1.6	0.00116 mg/L	0.004088	0.00578 mg/L	0.020438	353.86%
Si 288.158†	1797.2	0.8634 mg/L	0.02177	4.317 mg/L	0.1088	2.52%
Sn 189.927†	-14.4	-0.00287 mg/L	0.000839	-0.01435 mg/L	0.004196	29.24%
Sr 421.552†	78440.9	0.09170 mg/L	0.001911	0.4585 mg/L	0.00955	2.08%
Ti 334.903†	28423.4	1.368 mg/L	0.0313	6.842 mg/L	0.1567	2.29%
Tl 190.801†	-7.5	0.00000 mg/L	0.002523	0.00002 mg/L	0.012615	>999.9%
V 292.402†	7214.5	0.05831 mg/L	0.002187	0.2916 mg/L	0.01093	3.75%
Zn 206.200†	342.2	0.09569 mg/L	0.002878	0.4784 mg/L	0.01439	3.01%

Sequence No.: 26
Sample ID: VR35 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 350
Date Collected: 11/19/2012 3:22:51 PM
Data Type: Original

Nebulizer Parameters: VR35 A-L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 A-L SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2535246.6	106.3	%	0.49				0.46%
ScR 361.383	340039.8	111.3	%	0.75				0.67%
Ag 328.068†	3.1	0.00002	mg/L	0.000192	0.00057	mg/L	0.004809	838.78%
Al 308.215†	9063.6	5.424	mg/L	0.0776	135.6	mg/L	1.94	1.43%
As 188.979†	0.5	0.00730	mg/L	0.001648	0.1825	mg/L	0.04120	22.58%
B 249.677†	0.7	0.00009	mg/L	0.000769	0.00218	mg/L	0.019223	881.67%
Ba 233.527†	177.4	0.04117	mg/L	0.000510	1.029	mg/L	0.0128	1.24%
Be 313.042†	104.8	0.00016	mg/L	0.000010	0.00410	mg/L	0.000253	6.17%
Ca 317.933†	14382.6	1.081	mg/L	0.0127	27.03	mg/L	0.318	1.17%
Cd 228.802†	53.4	0.00177	mg/L	0.000182	0.04413	mg/L	0.004552	10.32%
Co 228.616†	100.6	0.00242	mg/L	0.000123	0.06059	mg/L	0.003081	5.08%
Cr 267.716†	56.9	0.00969	mg/L	0.000205	0.2422	mg/L	0.00512	2.11%
Cu 324.752†	1490.6	0.00633	mg/L	0.000034	0.1583	mg/L	0.00086	0.54%
Fe 273.955†	9283.3	7.071	mg/L	0.1152	176.8	mg/L	2.88	1.63%
K 766.490†	901.6	0.4726	mg/L	0.01446	11.82	mg/L	0.362	3.06%
Mg 279.077†	2160.3	1.584	mg/L	0.0116	39.60	mg/L	0.290	0.73%
Mn 257.610†	5703.0	0.1596	mg/L	0.00267	3.989	mg/L	0.0667	1.67%
Mo 202.031†	2.7	0.00013	mg/L	0.000204	0.00315	mg/L	0.005104	161.95%
Na 589.592†	974.4	0.08349	mg/L	0.003631	2.087	mg/L	0.0908	4.35%
Na 330.237†	7.2	0.2849	mg/L	0.04053	7.123	mg/L	1.0132	14.22%
Ni 231.604†	27.9	0.00747	mg/L	0.000777	0.1868	mg/L	0.01943	10.40%
Pb 220.353†	643.6	0.08724	mg/L	0.001195	2.181	mg/L	0.0299	1.37%
Sb 206.836†	-5.5	-0.00172	mg/L	0.002077	-0.04306	mg/L	0.051914	120.57%
Se 196.026†	2.0	0.00148	mg/L	0.001470	0.03702	mg/L	0.036757	99.30%
Si 288.158†	370.6	0.1780	mg/L	0.00251	4.451	mg/L	0.0626	1.41%
Sn 189.927†	-1.8	-0.00032	mg/L	0.000603	-0.00808	mg/L	0.015081	186.60%
Sr 421.552†	11187.6	0.01308	mg/L	0.000139	0.3270	mg/L	0.00348	1.06%
Ti 334.903†	5120.7	0.2465	mg/L	0.00328	6.164	mg/L	0.0820	1.33%
Tl 190.801†	-2.7	-0.00048	mg/L	0.001229	-0.01198	mg/L	0.030716	256.40%
V 292.402†	1517.8	0.01230	mg/L	0.000246	0.3076	mg/L	0.00616	2.00%
Zn 206.200†	331.5	0.09271	mg/L	0.001129	2.318	mg/L	0.0282	1.22%

Sequence No.: 27
Sample ID: VR35 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 351
Date Collected: 11/19/2012 3:26:51 PM
Data Type: Original

Nebulizer Parameters: VR35 A SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2602368.0	109.1	%	0.33				0.30%
ScR 361.383	337051.1	110.4	%	0.95				0.86%
Ag 328.068†	-67.1	-0.00040	mg/L	0.000049	-0.00200	mg/L	0.000246	12.33%
Al 308.215†	44883.3	26.86	mg/L	0.230	134.3	mg/L	1.15	0.86%
As 188.979†	2.6	0.03597	mg/L	0.002568	0.1799	mg/L	0.01284	7.14%
B 249.677†	6.2	0.00083	mg/L	0.000728	0.00413	mg/L	0.003641	88.23%
Ba 233.527†	861.3	0.1998	mg/L	0.00249	0.9989	mg/L	0.01247	1.25%
Be 313.042†	574.9	0.00090	mg/L	0.000021	0.00452	mg/L	0.000103	2.27%
Ca 317.933†	70082.9	5.269	mg/L	0.0433	26.35	mg/L	0.217	0.82%
Cd 228.802†	260.3	0.00860	mg/L	0.000088	0.04300	mg/L	0.000438	1.02%
Co 228.616†	436.6	0.01018	mg/L	0.000241	0.05090	mg/L	0.001207	2.37%
Cr 267.716†	232.9	0.03973	mg/L	0.001169	0.1986	mg/L	0.00585	2.94%
Cu 324.752†	7477.4	0.03174	mg/L	0.000634	0.1587	mg/L	0.00317	2.00%
Fe 273.955†	45810.0	34.89	mg/L	0.361	174.5	mg/L	1.80	1.03%
K 766.490†	4619.5	2.421	mg/L	0.0397	12.11	mg/L	0.198	1.64%
Mg 279.077†	10622.6	7.789	mg/L	0.0835	38.94	mg/L	0.417	1.07%
Mn 257.610†	28205.8	0.7892	mg/L	0.00716	3.946	mg/L	0.0358	0.91%
Mo 202.031†	15.4	0.00074	mg/L	0.000150	0.00371	mg/L	0.000751	20.25%
Na 589.592†	3430.2	0.2939	mg/L	0.00459	1.469	mg/L	0.0229	1.56%
Na 330.237†	0.5	0.1465	mg/L	0.23392	0.7324	mg/L	1.16958	159.68%
Ni 231.604†	117.8	0.03150	mg/L	0.000807	0.1575	mg/L	0.00404	2.56%
Pb 220.353†	2920.1	0.3962	mg/L	0.00650	1.981	mg/L	0.0325	1.64%
Sb 206.836†	2.2	0.00090	mg/L	0.000754	0.00452	mg/L	0.003771	83.46%
Se 196.026†	8.0	0.00587	mg/L	0.000781	0.02935	mg/L	0.003903	13.30%
Si 288.158†	1813.6	0.8713	mg/L	0.00427	4.356	mg/L	0.0214	0.49%
Sn 189.927†	-2.7	0.00012	mg/L	0.000375	0.00059	mg/L	0.001875	315.26%
Sr 421.552†	54999.9	0.06430	mg/L	0.000575	0.3215	mg/L	0.00288	0.89%
Ti 334.903†	25242.0	1.215	mg/L	0.0107	6.077	mg/L	0.0537	0.88%
Tl 190.801†	-6.4	0.00064	mg/L	0.000411	0.00319	mg/L	0.002053	64.31%
V 292.402†	7037.9	0.05692	mg/L	0.001367	0.2846	mg/L	0.00684	2.40%
Zn 206.200†	1624.0	0.4542	mg/L	0.00342	2.271	mg/L	0.0171	0.75%

Sequence No.: 28
Sample ID: VR35 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 352
Date Collected: 11/19/2012 3:30:50 PM
Data Type: Original

Nebulizer Parameters: VR35 ADUP SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2587524.4	108.5	%	0.45				0.42%
ScR 361.383	338427.2	110.8	%	1.05				0.94%
Ag 328.068†	-76.3	-0.00046	mg/L	0.000142	-0.00228	mg/L	0.000708	31.02%
Al 308.215†	45876.6	27.46	mg/L	0.364	137.3	mg/L	1.82	1.33%
As 188.979†	0.4	0.03441	mg/L	0.000372	0.1721	mg/L	0.00186	1.08%
B 249.677†	5.7	0.00076	mg/L	0.000490	0.00379	mg/L	0.002452	64.68%
Ba 233.527†	900.0	0.2086	mg/L	0.00043	1.043	mg/L	0.0022	0.21%
Be 313.042†	586.0	0.00092	mg/L	0.000018	0.00461	mg/L	0.000091	1.98%
Ca 317.933†	74454.7	5.598	mg/L	0.0641	27.99	mg/L	0.321	1.15%
Cd 228.802†	252.3	0.00831	mg/L	0.000370	0.04157	mg/L	0.001848	4.44%
Co 228.616†	434.8	0.01011	mg/L	0.000485	0.05057	mg/L	0.002424	4.79%
Cr 267.716†	237.0	0.04049	mg/L	0.000585	0.2024	mg/L	0.00293	1.45%
Cu 324.752†	7329.5	0.03123	mg/L	0.000994	0.1562	mg/L	0.00497	3.18%
Fe 273.955†	48742.0	37.13	mg/L	0.446	185.6	mg/L	2.23	1.20%
K 766.490†	4693.4	2.460	mg/L	0.0335	12.30	mg/L	0.168	1.36%
Mg 279.077†	10948.1	8.027	mg/L	0.0795	40.14	mg/L	0.397	0.99%
Mn 257.610†	29188.6	0.8167	mg/L	0.01045	4.083	mg/L	0.0523	1.28%
Mo 202.031†	15.9	0.00076	mg/L	0.000199	0.00381	mg/L	0.000997	26.12%
Na 589.592†	3492.3	0.2992	mg/L	0.00181	1.496	mg/L	0.0090	0.60%
Na 330.237†	2.5	0.2130	mg/L	0.07938	1.065	mg/L	0.3969	37.27%
Ni 231.604†	120.5	0.03224	mg/L	0.000533	0.1612	mg/L	0.00266	1.65%
Pb 220.353†	2862.6	0.3886	mg/L	0.01178	1.943	mg/L	0.0589	3.03%
Sb 206.836†	3.9	0.00141	mg/L	0.000538	0.00705	mg/L	0.002691	38.18%
Se 196.026†	5.0	0.00365	mg/L	0.002683	0.01827	mg/L	0.013413	73.40%
Si 288.158†	1501.4	0.7215	mg/L	0.00994	3.607	mg/L	0.0497	1.38%
Sn 189.927†	-5.1	-0.00048	mg/L	0.000358	-0.00240	mg/L	0.001790	74.60%
Sr 421.552†	64436.0	0.07533	mg/L	0.000829	0.3766	mg/L	0.00415	1.10%
Ti 334.903†	25064.6	1.207	mg/L	0.0164	6.034	mg/L	0.0822	1.36%
Tl 190.801†	-5.7	0.00117	mg/L	0.002038	0.00586	mg/L	0.010191	173.80%
V 292.402†	7240.7	0.05854	mg/L	0.001889	0.2927	mg/L	0.00944	3.23%
Zn 206.200†	1639.5	0.4585	mg/L	0.00470	2.293	mg/L	0.0235	1.02%

Sequence No.: 29
Sample ID: VR35 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 353
Date Collected: 11/19/2012 3:34:49 PM
Data Type: Original

Nebulizer Parameters: VR35 ASPK SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2576341.7	108.0	%	0.52				0.48%
ScR 361.383	340969.0	111.7	%	1.55				1.39%
Ag 328.068†	32447.5	0.2016	mg/L	0.00197	1.008	mg/L	0.0098	0.98%
Al 308.215†	46203.1	27.65	mg/L	0.289	138.2	mg/L	1.45	1.05%
As 188.979†	1358.9	0.8366	mg/L	0.00492	4.183	mg/L	0.0246	0.59%
B 249.677†	11.5	0.00113	mg/L	0.000162	0.00567	mg/L	0.000810	14.27%
Ba 233.527†	4225.1	1.002	mg/L	0.0166	5.011	mg/L	0.0829	1.65%
Be 313.042†	122377.7	0.1981	mg/L	0.00222	0.9907	mg/L	0.01112	1.12%
Ca 317.933†	124877.8	9.389	mg/L	0.1085	46.94	mg/L	0.543	1.16%
Cd 228.802†	6570.8	0.2196	mg/L	0.00086	1.098	mg/L	0.0043	0.39%
Co 228.616†	7401.4	0.2177	mg/L	0.00107	1.088	mg/L	0.0054	0.49%
Cr 267.716†	1395.2	0.2349	mg/L	0.00376	1.174	mg/L	0.0188	1.60%
Cu 324.752†	58460.4	0.2398	mg/L	0.00219	1.199	mg/L	0.0109	0.91%
Fe 273.955†	46009.2	35.04	mg/L	0.382	175.2	mg/L	1.91	1.09%
K 766.490†	11501.1	6.029	mg/L	0.0710	30.14	mg/L	0.355	1.18%
Mg 279.077†	15703.3	11.52	mg/L	0.180	57.62	mg/L	0.898	1.56%
Mn 257.610†	37665.9	1.054	mg/L	0.0098	5.270	mg/L	0.0491	0.93%
Mo 202.031†	24.5	0.00116	mg/L	0.000182	0.00578	mg/L	0.000909	15.71%
Na 589.592†	48774.7	4.179	mg/L	0.0483	20.89	mg/L	0.242	1.16%
Na 330.237†	119.9	4.336	mg/L	0.1567	21.68	mg/L	0.783	3.61%
Ni 231.604†	843.5	0.2253	mg/L	0.00423	1.126	mg/L	0.0211	1.88%
Pb 220.353†	9111.3	1.226	mg/L	0.0038	6.129	mg/L	0.0188	0.31%
Sb 206.836†	10.5	0.00147	mg/L	0.001221	0.00735	mg/L	0.006106	83.03%
Se 196.026†	1095.6	0.8109	mg/L	0.00340	4.055	mg/L	0.0170	0.42%
Si 288.158†	1738.1	0.8363	mg/L	0.01145	4.181	mg/L	0.0573	1.37%
Sn 189.927†	-12.7	-0.00205	mg/L	0.001087	-0.01026	mg/L	0.005433	52.95%
Sr 421.552†	238491.5	0.2788	mg/L	0.00287	1.394	mg/L	0.0144	1.03%
Ti 334.903†	23776.9	1.145	mg/L	0.0123	5.723	mg/L	0.0616	1.08%
Tl 190.801†	1788.0	0.7836	mg/L	0.00315	3.918	mg/L	0.0157	0.40%
V 292.402†	30997.6	0.2571	mg/L	0.00228	1.286	mg/L	0.0114	0.89%
Zn 206.200†	2335.9	0.6533	mg/L	0.01051	3.267	mg/L	0.0525	1.61%

MK 12/6/12

Sequence No.: 30 VR35
Sample ID: ~~VR35 APOST SWC~~ APOST
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 354
Date Collected: 11/19/2012 3:38:49 PM
Data Type: Original

BA 11/20/12

SWC

Nebulizer Parameters: VR35 APOST SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2535215.5	106.3	%	0.86				0.81%
ScR 361.383	338896.0	111.0	%	1.17				1.05%
Ag 328.068†	81964.8	0.5091	mg/L	0.00571	2.546	mg/L	0.0285	1.12%
Al 308.215†	47275.2	28.29	mg/L	0.327	141.4	mg/L	1.63	1.16%
As 188.979†	3457.5	2.080	mg/L	0.0288	10.40	mg/L	0.144	1.38%
B 249.677†	11.0	0.00045	mg/L	0.000784	0.00225	mg/L	0.003920	174.21%
Ba 233.527†	9069.0	2.158	mg/L	0.0296	10.79	mg/L	0.148	1.37%
Be 313.042†	300469.4	0.4865	mg/L	0.00488	2.433	mg/L	0.0244	1.00%
Ca 317.933†	194236.9	14.60	mg/L	0.169	73.02	mg/L	0.845	1.16%
Cd 228.802†	15667.8	0.5232	mg/L	0.00678	2.616	mg/L	0.0339	1.30%
Co 228.616†	17390.8	0.5150	mg/L	0.00686	2.575	mg/L	0.0343	1.33%
Cr 267.716†	3132.5	0.5266	mg/L	0.00668	2.633	mg/L	0.0334	1.27%
Cu 324.752†	136458.7	0.5580	mg/L	0.00595	2.790	mg/L	0.0297	1.07%
Fe 273.955†	47196.7	35.95	mg/L	0.329	179.7	mg/L	1.64	0.91%
K 766.490†	22677.2	11.89	mg/L	0.130	59.43	mg/L	0.650	1.09%
Mg 279.077†	23687.8	17.39	mg/L	0.195	86.96	mg/L	0.976	1.12%
Mn 257.610†	44091.3	1.234	mg/L	0.0135	6.169	mg/L	0.0677	1.10%
Mo 202.031†	34.4	0.00160	mg/L	0.000164	0.00801	mg/L	0.000821	10.24%
Na 589.592†	115332.7	9.881	mg/L	0.1187	49.41	mg/L	0.594	1.20%
Na 330.237†	283.4	10.11	mg/L	0.114	50.55	mg/L	0.568	1.12%
Ni 231.604†	1921.4	0.5131	mg/L	0.00720	2.565	mg/L	0.0360	1.40%
Pb 220.353†	17522.6	2.353	mg/L	0.0188	11.76	mg/L	0.094	0.80%
Sb 206.836†	8.6	-0.00211	mg/L	0.001067	-0.01056	mg/L	0.005336	50.55%
Se 196.026†	2767.1	2.048	mg/L	0.0383	10.24	mg/L	0.191	1.87%
Si 288.158†	1775.5	0.8561	mg/L	0.01345	4.280	mg/L	0.0672	1.57%
Sn 189.927†	-18.7	-0.00297	mg/L	0.000604	-0.01485	mg/L	0.003022	20.35%
Sr 421.552†	469929.2	0.5494	mg/L	0.00596	2.747	mg/L	0.0298	1.09%
Ti 334.903†	24801.2	1.194	mg/L	0.0125	5.968	mg/L	0.0627	1.05%
Tl 190.801†	4541.4	1.985	mg/L	0.0274	9.927	mg/L	0.1370	1.38%
V 292.402†	67705.0	0.5637	mg/L	0.00500	2.818	mg/L	0.0250	0.89%
Zn 206.200†	3308.3	0.9253	mg/L	0.00973	4.626	mg/L	0.0487	1.05%

Sequence No.: 31
Sample ID: VR35 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 355
Date Collected: 11/19/2012 3:42:50 PM
Data Type: Original

Nebulizer Parameters: VR35 MB1SPK SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2557184.4	107.2	%	0.53				0.50%
ScR 361.383	337043.8	110.4	%	1.14				1.03%
Ag 328.068†	80241.0	0.4984	mg/L	0.00407	0.9968	mg/L	0.00815	0.82%
Al 308.215†	3281.3	1.957	mg/L	0.0424	3.914	mg/L	0.0848	2.17%
As 188.979†	3295.6	1.950	mg/L	0.0223	3.901	mg/L	0.0445	1.14%
B 249.677†	4.5	-0.00038	mg/L	0.000822	-0.00075	mg/L	0.001644	218.39%
Ba 233.527†	8385.6	2.000	mg/L	0.0365	4.001	mg/L	0.0729	1.82%
Be 313.042†	303016.6	0.4907	mg/L	0.00890	0.9813	mg/L	0.01779	1.81%
Ca 317.933†	126150.6	9.484	mg/L	0.1662	18.97	mg/L	0.332	1.75%
Cd 228.802†	14738.9	0.4923	mg/L	0.00523	0.9847	mg/L	0.01047	1.06%
Co 228.616†	16391.3	0.4880	mg/L	0.00509	0.9760	mg/L	0.01018	1.04%
Cr 267.716†	2968.3	0.4984	mg/L	0.00936	0.9968	mg/L	0.01872	1.88%
Cu 324.752†	120911.3	0.4934	mg/L	0.00479	0.9868	mg/L	0.00957	0.97%
Fe 273.955†	2577.4	1.960	mg/L	0.0360	3.920	mg/L	0.0721	1.84%
K 766.490†	18226.8	9.554	mg/L	0.1885	19.11	mg/L	0.377	1.97%
Mg 279.077†	13432.4	9.873	mg/L	0.1859	19.75	mg/L	0.372	1.88%
Mn 257.610†	17483.8	0.4894	mg/L	0.00878	0.9788	mg/L	0.01755	1.79%
Mo 202.031†	21.4	0.00098	mg/L	0.000179	0.00197	mg/L	0.000359	18.21%
Na 589.592†	113855.9	9.755	mg/L	0.2129	19.51	mg/L	0.426	2.18%
Na 330.237†	284.6	10.02	mg/L	0.240	20.04	mg/L	0.480	2.39%
Ni 231.604†	1858.4	0.4963	mg/L	0.00819	0.9925	mg/L	0.01638	1.65%
Pb 220.353†	14071.6	1.886	mg/L	0.0242	3.771	mg/L	0.0484	1.28%
Sb 206.836†	6.9	-0.00311	mg/L	0.000865	-0.00622	mg/L	0.001730	27.82%
Se 196.026†	2641.6	1.955	mg/L	0.0239	3.911	mg/L	0.0477	1.22%
Si 288.158†	-2.8	0.00169	mg/L	0.002168	0.00339	mg/L	0.004336	128.05%
Sn 189.927†	-18.8	-0.00382	mg/L	0.000956	-0.00765	mg/L	0.001911	24.98%
Sr 421.552†	423058.9	0.4946	mg/L	0.00938	0.9891	mg/L	0.01875	1.90%
Ti 334.903†	26.6	0.00073	mg/L	0.000174	0.00145	mg/L	0.000348	23.96%
Tl 190.801†	4357.1	1.902	mg/L	0.0262	3.803	mg/L	0.0523	1.38%
V 292.402†	57854.9	0.4834	mg/L	0.00429	0.9667	mg/L	0.00857	0.89%
Zn 206.200†	1773.3	0.4960	mg/L	0.00805	0.9920	mg/L	0.01610	1.62%

Sequence No.: 32
Sample ID: CV 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 3:46:51 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2528422.6	106.0	%	0.36				0.34%
ScR 361.383	326042.9	106.8	%	0.42				0.39%
Ag 328.068†	163870.1	1.018	mg/L	0.0098	1.018	mg/L	0.0098	0.96%
Al 308.215†	3308.7	1.947	mg/L	0.0053	1.947	mg/L	0.0053	0.27%
As 188.979†	3343.4	2.003	mg/L	0.0061	2.003	mg/L	0.0061	0.31%
B 249.677†	7035.9	0.9701	mg/L	0.00298	0.9701	mg/L	0.00298	0.31%
Ba 233.527†	4173.0	0.9952	mg/L	0.00211	0.9952	mg/L	0.00211	0.21%
Be 313.042†	594785.7	0.9631	mg/L	0.00444	0.9631	mg/L	0.00444	0.46%
Ca 317.933†	25109.1	1.888	mg/L	0.0138	1.888	mg/L	0.0138	0.73%
Cd 228.802†	29504.0	0.9984	mg/L	0.00822	0.9984	mg/L	0.00822	0.82%
Co 228.616†	33316.2	0.9904	mg/L	0.00943	0.9904	mg/L	0.00943	0.95%
Cr 267.716†	5914.0	0.9946	mg/L	0.00252	0.9946	mg/L	0.00252	0.25%
Cu 324.752†	239881.4	0.9784	mg/L	0.00105	0.9784	mg/L	0.00105	0.11%
Fe 273.955†	2593.6	1.969	mg/L	0.0072	1.969	mg/L	0.0072	0.37%
K 766.490†	36940.2	19.36	mg/L	0.086	19.36	mg/L	0.086	0.45%
Mg 279.077†	2635.9	1.944	mg/L	0.0110	1.944	mg/L	0.0110	0.57%
Mn 257.610†	34123.0	0.9549	mg/L	0.00430	0.9549	mg/L	0.00430	0.45%
Mo 202.031†	18458.3	0.9594	mg/L	0.00909	0.9594	mg/L	0.00909	0.95%
Na 589.592†	584826.1	50.11	mg/L	0.283	50.11	mg/L	0.283	0.56%
Na 330.237†	1415.0	50.52	mg/L	0.270	50.52	mg/L	0.270	0.54%
Ni 231.604†	3697.5	0.9893	mg/L	0.00208	0.9893	mg/L	0.00208	0.21%
Pb 220.353†	14403.1	1.930	mg/L	0.0160	1.930	mg/L	0.0160	0.83%
Sb 206.836†	6405.9	2.040	mg/L	0.0069	2.040	mg/L	0.0069	0.34%
Se 196.026†	2652.6	1.963	mg/L	0.0075	1.963	mg/L	0.0075	0.38%
Si 288.158†	4116.9	1.975	mg/L	0.0096	1.975	mg/L	0.0096	0.48%
Sn 189.927†	3603.1	0.9688	mg/L	0.00472	0.9688	mg/L	0.00472	0.49%
Sr 421.552†	839638.5	0.9816	mg/L	0.00451	0.9816	mg/L	0.00451	0.46%
Ti 334.903†	19953.2	0.9598	mg/L	0.00511	0.9598	mg/L	0.00511	0.53%
Tl 190.801†	4509.2	1.964	mg/L	0.0086	1.964	mg/L	0.0086	0.44%
V 292.402†	120357.7	1.005	mg/L	0.0080	1.005	mg/L	0.0080	0.79%
Zn 206.200†	3633.8	1.016	mg/L	0.0032	1.016	mg/L	0.0032	0.31%

Sequence No.: 33
Sample ID: CB 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 3:51:57 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2548703.5	106.9	%	0.37				0.35%
ScR 361.383	332069.3	108.7	%	0.28				0.26%
Ag 328.068†	10.0	0.00006	mg/L	0.000128	0.00006	mg/L	0.000128	205.73%
Al 308.215†	-2.0	-0.00122	mg/L	0.010177	-0.00122	mg/L	0.010177	832.37%
As 188.979†	1.7	0.00097	mg/L	0.000902	0.00097	mg/L	0.000902	93.25%
B 249.677†	5.4	0.00074	mg/L	0.000384	0.00074	mg/L	0.000384	51.74%
Ba 233.527†	1.0	0.00023	mg/L	0.000928	0.00023	mg/L	0.000928	399.35%
Be 313.042†	62.5	0.00010	mg/L	0.000021	0.00010	mg/L	0.000021	20.96%
Ca 317.933†	-2.0	-0.00015	mg/L	0.000209	-0.00015	mg/L	0.000209	136.65%
Cd 228.802†	-10.4	-0.00036	mg/L	0.000065	-0.00036	mg/L	0.000065	18.14%
Co 228.616†	5.3	0.00016	mg/L	0.000105	0.00016	mg/L	0.000105	65.91%
Cr 267.716†	7.6	0.00127	mg/L	0.000420	0.00127	mg/L	0.000420	32.99%
Cu 324.752†	-39.0	-0.00016	mg/L	0.000099	-0.00016	mg/L	0.000099	62.64%
Fe 273.955†	5.0	0.00378	mg/L	0.001001	0.00378	mg/L	0.001001	26.51%
K 766.490†	-57.2	-0.03000	mg/L	0.009577	-0.03000	mg/L	0.009577	31.92%
Mg 279.077†	-10.6	-0.00775	mg/L	0.003130	-0.00775	mg/L	0.003130	40.36%
Mn 257.610†	2.6	0.00007	mg/L	0.000058	0.00007	mg/L	0.000058	78.00%
Mo 202.031†	8.1	0.00042	mg/L	0.000270	0.00042	mg/L	0.000270	64.13%
Na 589.592†	278.5	0.02386	mg/L	0.002622	0.02386	mg/L	0.002622	10.99%
Na 330.237†	7.0	0.2515	mg/L	0.27026	0.2515	mg/L	0.27026	107.48%
Ni 231.604†	4.8	0.00129	mg/L	0.000068	0.00129	mg/L	0.000068	5.22%
Pb 220.353†	-0.6	-0.00008	mg/L	0.000224	-0.00008	mg/L	0.000224	280.14%
Sb 206.836†	3.6	0.00113	mg/L	0.001309	0.00113	mg/L	0.001309	115.59%
Se 196.026†	7.5	0.00554	mg/L	0.001208	0.00554	mg/L	0.001208	21.82%
Si 288.158†	3.1	0.00147	mg/L	0.001072	0.00147	mg/L	0.001072	73.07%
Sn 189.927†	0.2	0.00006	mg/L	0.000525	0.00006	mg/L	0.000525	895.13%
Sr 421.552†	94.6	0.00011	mg/L	0.000024	0.00011	mg/L	0.000024	21.41%
Ti 334.903†	-6.7	-0.00032	mg/L	0.000694	-0.00032	mg/L	0.000694	214.50%
Tl 190.801†	2.3	0.00102	mg/L	0.000661	0.00102	mg/L	0.000661	64.87%
V 292.402†	12.7	0.00011	mg/L	0.000077	0.00011	mg/L	0.000077	69.44%
Zn 206.200†	-1.1	-0.00030	mg/L	0.000419	-0.00030	mg/L	0.000419	141.85%

Sequence No.: 34
Sample ID: VR35 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 356
Date Collected: 11/19/2012 3:56:12 PM
Data Type: Original

Nebulizer Parameters: VR35 E SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2559429.9	107.3	%	0.53				0.50%
ScR 361.383	339826.8	111.3	%	2.20				1.98%
Ag 328.068†	-88.8	-0.00053	mg/L	0.000117	-0.00267	mg/L	0.000584	21.90%
Al 308.215†	31290.2	18.73	mg/L	0.496	93.63	mg/L	2.482	2.65%
As 188.979†	-11.0	0.02562	mg/L	0.001768	0.1281	mg/L	0.00884	6.90%
B 249.677†	11.2	0.00152	mg/L	0.000438	0.00760	mg/L	0.002190	28.80%
Ba 233.527†	617.9	0.1420	mg/L	0.00297	0.7098	mg/L	0.01485	2.09%
Be 313.042†	505.1	0.00079	mg/L	0.000033	0.00396	mg/L	0.000164	4.14%
Ca 317.933†	71155.6	5.350	mg/L	0.1488	26.75	mg/L	0.744	2.78%
Cd 228.802†	142.0	0.00461	mg/L	0.000190	0.02306	mg/L	0.000948	4.11%
Co 228.616†	449.7	0.01075	mg/L	0.000274	0.05376	mg/L	0.001372	2.55%
Cr 267.716†	234.9	0.04006	mg/L	0.001088	0.2003	mg/L	0.00544	2.72%
Cu 324.752†	5837.8	0.02500	mg/L	0.000206	0.1250	mg/L	0.00103	0.82%
Fe 273.955†	43767.5	33.34	mg/L	0.920	166.7	mg/L	4.60	2.76%
K 766.490†	6140.0	3.218	mg/L	0.0948	16.09	mg/L	0.474	2.94%
Mg 279.077†	10027.9	7.353	mg/L	0.1418	36.76	mg/L	0.709	1.93%
Mn 257.610†	26463.5	0.7404	mg/L	0.02037	3.702	mg/L	0.1018	2.75%
Mo 202.031†	16.0	0.00077	mg/L	0.000140	0.00387	mg/L	0.000699	18.06%
Na 589.592†	2881.9	0.2469	mg/L	0.00493	1.235	mg/L	0.0247	2.00%
Na 330.237†	4.0	0.3099	mg/L	0.11939	1.549	mg/L	0.5970	38.53%
Ni 231.604†	105.7	0.02828	mg/L	0.001272	0.1414	mg/L	0.00636	4.50%
Pb 220.353†	1982.7	0.2687	mg/L	0.00300	1.344	mg/L	0.0150	1.11%
Sb 206.836†	2.7	0.00102	mg/L	0.002348	0.00509	mg/L	0.011742	230.65%
Se 196.026†	1.0	0.00067	mg/L	0.003119	0.00335	mg/L	0.015594	465.19%
Si 288.158†	1407.5	0.6763	mg/L	0.01584	3.382	mg/L	0.0792	2.34%
Sn 189.927†	-5.1	-0.00053	mg/L	0.000446	-0.00265	mg/L	0.002228	83.92%
Sr 421.552†	54777.8	0.06404	mg/L	0.001666	0.3202	mg/L	0.00833	2.60%
Ti 334.903†	23559.8	1.134	mg/L	0.0291	5.671	mg/L	0.1455	2.57%
Tl 190.801†	-5.4	0.00092	mg/L	0.000455	0.00458	mg/L	0.002275	49.66%
V 292.402†	7576.9	0.06150	mg/L	0.000457	0.3075	mg/L	0.00229	0.74%
Zn 206.200†	993.6	0.2779	mg/L	0.00610	1.389	mg/L	0.0305	2.19%

Sequence No.: 35
Sample ID: VR35 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 357
Date Collected: 11/19/2012 4:00:14 PM
Data Type: Original

Nebulizer Parameters: VR35 F SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2586105.6	108.4	%	0.65				0.60%
ScR 361.383	341519.5	111.8	%	1.72				1.54%
Ag 328.068†	131.5	0.00083	mg/L	0.000075	0.00417	mg/L	0.000376	9.01%
Al 308.215†	34825.3	20.84	mg/L	0.489	104.2	mg/L	2.45	2.35%
As 188.979†	5.2	0.03837	mg/L	0.002197	0.1919	mg/L	0.01099	5.73%
B 249.677†	24.6	0.00337	mg/L	0.000542	0.01686	mg/L	0.002708	16.06%
Ba 233.527†	2351.0	0.5557	mg/L	0.01055	2.778	mg/L	0.0527	1.90%
Be 313.042†	537.7	0.00084	mg/L	0.000028	0.00422	mg/L	0.000141	3.34%
Ca 317.933†	160703.7	12.08	mg/L	0.281	60.41	mg/L	1.407	2.33%
Cd 228.802†	1150.1	0.03910	mg/L	0.000037	0.1955	mg/L	0.00018	0.09%
Co 228.616†	502.0	0.01206	mg/L	0.000233	0.06028	mg/L	0.001167	1.94%
Cr 267.716†	236.7	0.03995	mg/L	0.000179	0.1998	mg/L	0.00090	0.45%
Cu 324.752†	19883.4	0.08221	mg/L	0.000186	0.4111	mg/L	0.00093	0.23%
Fe 273.955†	42066.8	32.04	mg/L	0.671	160.2	mg/L	3.36	2.10%
K 766.490†	5706.2	2.991	mg/L	0.0717	14.96	mg/L	0.358	2.40%
Mg 279.077†	11207.5	8.220	mg/L	0.1177	41.10	mg/L	0.588	1.43%
Mn 257.610†	99357.2	2.780	mg/L	0.0611	13.90	mg/L	0.306	2.20%
Mo 202.031†	36.9	0.00178	mg/L	0.000137	0.00892	mg/L	0.000683	7.66%
Na 589.592†	3449.5	0.2955	mg/L	0.00364	1.478	mg/L	0.0182	1.23%
Na 330.237†	17.8	0.4234	mg/L	0.18992	2.117	mg/L	0.9496	44.86%
Ni 231.604†	116.6	0.03119	mg/L	0.000605	0.1559	mg/L	0.00302	1.94%
Pb 220.353†	16352.0	2.194	mg/L	0.0029	10.97	mg/L	0.015	0.13%
Sb 206.836†	27.2	0.00891	mg/L	0.001010	0.04453	mg/L	0.005048	11.34%
Se 196.026†	8.1	0.00597	mg/L	0.004904	0.02983	mg/L	0.024521	82.21%
Si 288.158†	1007.0	0.4844	mg/L	0.00993	2.422	mg/L	0.0496	2.05%
Sn 189.927†	8.0	0.00390	mg/L	0.000956	0.01949	mg/L	0.004778	24.52%
Sr 421.552†	122772.3	0.1435	mg/L	0.00328	0.7176	mg/L	0.01642	2.29%
Ti 334.903†	26134.1	1.258	mg/L	0.0305	6.290	mg/L	0.1525	2.42%
Tl 190.801†	-6.8	0.00013	mg/L	0.000274	0.00067	mg/L	0.001372	204.50%
V 292.402†	7313.7	0.05960	mg/L	0.000247	0.2980	mg/L	0.00123	0.41%
Zn 206.200†	5438.6	1.521	mg/L	0.0248	7.605	mg/L	0.1238	1.63%

Sequence No.: 36
Sample ID: VR35 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 358
Date Collected: 11/19/2012 4:04:13 PM
Data Type: Original

Nebulizer Parameters: VR35 G SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2577614.2	108.1	%	0.23				0.21%
ScR 361.383	340958.1	111.7	%	2.07				1.85%
Ag 328.068†	-130.2	-0.00077	mg/L	0.000121	-0.00386	mg/L	0.000604	15.62%
Al 308.215†	112479.6	67.32	mg/L	1.151	336.6	mg/L	5.75	1.71%
As 188.979†	134.5	0.1476	mg/L	0.00287	0.7379	mg/L	0.01434	1.94%
B 249.677†	62.5	0.00852	mg/L	0.000464	0.04258	mg/L	0.002322	5.45%
Ba 233.527†	4949.2	1.163	mg/L	0.0210	5.816	mg/L	0.1050	1.81%
Be 313.042†	1597.4	0.00253	mg/L	0.000094	0.01267	mg/L	0.000470	3.71%
Ca 317.933†	259820.3	19.53	mg/L	0.365	97.67	mg/L	1.827	1.87%
Cd 228.802†	1222.5	0.04044	mg/L	0.000112	0.2022	mg/L	0.00056	0.28%
Co 228.616†	1822.8	0.04811	mg/L	0.000165	0.2406	mg/L	0.00082	0.34%
Cr 267.716†	782.5	0.1330	mg/L	0.00192	0.6652	mg/L	0.00959	1.44%
Cu 324.752†	31747.9	0.1336	mg/L	0.00021	0.6679	mg/L	0.00107	0.16%
Fe 273.955†	140626.9	107.1	mg/L	2.17	535.6	mg/L	10.87	2.03%
K 766.490†	18669.3	9.786	mg/L	0.1793	48.93	mg/L	0.896	1.83%
Mg 279.077†	32665.1	23.95	mg/L	0.446	119.8	mg/L	2.23	1.86%
Mn 257.610†	194655.6	5.446	mg/L	0.1034	27.23	mg/L	0.517	1.90%
Mo 202.031†	77.0	0.00378	mg/L	0.000028	0.01891	mg/L	0.000141	0.74%
Na 589.592†	7163.6	0.6138	mg/L	0.00884	3.069	mg/L	0.0442	1.44%
Na 330.237†	15.7	0.4896	mg/L	0.12894	2.448	mg/L	0.6447	26.34%
Ni 231.604†	474.1	0.1268	mg/L	0.00320	0.6341	mg/L	0.01599	2.52%
Pb 220.353†	14560.6	1.962	mg/L	0.0088	9.811	mg/L	0.0441	0.45%
Sb 206.836†	30.4	0.00928	mg/L	0.000816	0.04641	mg/L	0.004082	8.80%
Se 196.026†	11.2	0.00818	mg/L	0.001164	0.04091	mg/L	0.005818	14.22%
Si 288.158†	1412.8	0.6810	mg/L	0.01408	3.405	mg/L	0.0704	2.07%
Sn 189.927†	-10.9	-0.00009	mg/L	0.001120	-0.00046	mg/L	0.005599	>999.9%
Sr 421.552†	178032.4	0.2081	mg/L	0.00358	1.041	mg/L	0.0179	1.72%
Ti 334.903†	50236.9	2.418	mg/L	0.0431	12.09	mg/L	0.215	1.78%
Tl 190.801†	-25.1	-0.00030	mg/L	0.001397	-0.00152	mg/L	0.006985	459.43%
V 292.402†	14840.2	0.1197	mg/L	0.00021	0.5986	mg/L	0.00104	0.17%
Zn 206.200†	6756.5	1.890	mg/L	0.0348	9.448	mg/L	0.1741	1.84%

Sequence No.: 37
Sample ID: VR35 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 359
Date Collected: 11/19/2012 4:08:13 PM
Data Type: Original

Nebulizer Parameters: VR35 H SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2557563.5	107.2	%	0.66				0.62%
ScR 361.383	338220.5	110.8	%	0.95				0.86%
Ag 328.068†	-82.3	-0.00049	mg/L	0.000089	-0.00245	mg/L	0.000444	18.10%
Al 308.215†	61091.4	36.56	mg/L	0.218	182.8	mg/L	1.09	0.60%
As 188.979†	12.7	0.05311	mg/L	0.004411	0.2656	mg/L	0.02206	8.30%
B 249.677†	15.8	0.00215	mg/L	0.000676	0.01074	mg/L	0.003378	31.46%
Ba 233.527†	2174.5	0.5120	mg/L	0.00527	2.560	mg/L	0.0263	1.03%
Be 313.042†	684.5	0.00108	mg/L	0.000024	0.00538	mg/L	0.000120	2.22%
Ca 317.933†	98726.6	7.423	mg/L	0.0476	37.11	mg/L	0.238	0.64%
Cd 228.802†	371.7	0.01232	mg/L	0.000137	0.06160	mg/L	0.000684	1.11%
Co 228.616†	620.5	0.01478	mg/L	0.000149	0.07392	mg/L	0.000744	1.01%
Cr 267.716†	275.4	0.04692	mg/L	0.001048	0.2346	mg/L	0.00524	2.23%
Cu 324.752†	11597.3	0.04875	mg/L	0.000567	0.2438	mg/L	0.00283	1.16%
Fe 273.955†	54640.8	41.62	mg/L	0.160	208.1	mg/L	0.80	0.38%
K 766.490†	6012.1	3.151	mg/L	0.0299	15.76	mg/L	0.150	0.95%
Mg 279.077†	12254.8	8.985	mg/L	0.0658	44.93	mg/L	0.329	0.73%
Mn 257.610†	70780.9	1.980	mg/L	0.0086	9.901	mg/L	0.0432	0.44%
Mo 202.031†	33.4	0.00166	mg/L	0.000173	0.00828	mg/L	0.000866	10.47%
Na 589.592†	4687.5	0.4016	mg/L	0.00300	2.008	mg/L	0.0150	0.75%
Na 330.237†	2.7	0.2734	mg/L	0.09028	1.367	mg/L	0.4514	33.02%
Ni 231.604†	150.6	0.04028	mg/L	0.002102	0.2014	mg/L	0.01051	5.22%
Pb 220.353†	3639.2	0.4946	mg/L	0.00453	2.473	mg/L	0.0226	0.92%
Sb 206.836†	6.7	0.00243	mg/L	0.001468	0.01213	mg/L	0.007341	60.53%
Se 196.026†	8.6	0.00635	mg/L	0.002682	0.03177	mg/L	0.013408	42.21%
Si 288.158†	1986.3	0.9543	mg/L	0.01030	4.772	mg/L	0.0515	1.08%
Sn 189.927†	-8.7	-0.00118	mg/L	0.001394	-0.00588	mg/L	0.006968	118.44%
Sr 421.552†	78960.3	0.09231	mg/L	0.000637	0.4615	mg/L	0.00318	0.69%
Ti 334.903†	33411.4	1.609	mg/L	0.0081	8.043	mg/L	0.0406	0.51%
Tl 190.801†	-9.9	-0.00023	mg/L	0.001036	-0.00116	mg/L	0.005180	448.09%
V 292.402†	8528.3	0.06908	mg/L	0.000511	0.3454	mg/L	0.00255	0.74%
Zn 206.200†	2056.7	0.5752	mg/L	0.00437	2.876	mg/L	0.0219	0.76%

Sequence No.: 38
Sample ID: VR35 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 360
Date Collected: 11/19/2012 4:12:13 PM
Data Type: Original

Nebulizer Parameters: VR35 I SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2602833.0	109.1	%	0.35				0.32%
ScR 361.383	343536.2	112.5	%	0.92				0.82%
Ag 328.068†	18.5	0.00015	mg/L	0.000128	0.00073	mg/L	0.000639	87.89%
Al 308.215†	104768.1	62.70	mg/L	1.054	313.5	mg/L	5.27	1.68%
As 188.979†	-14.7	0.05397	mg/L	0.003645	0.2699	mg/L	0.01822	6.75%
B 249.677†	55.5	0.00757	mg/L	0.000555	0.03787	mg/L	0.002774	7.33%
Ba 233.527†	5356.1	1.265	mg/L	0.0080	6.325	mg/L	0.0400	0.63%
Be 313.042†	1118.3	0.00176	mg/L	0.000044	0.00882	mg/L	0.000218	2.48%
Ca 317.933†	217070.8	16.32	mg/L	0.280	81.60	mg/L	1.401	1.72%
Cd 228.802†	855.8	0.02869	mg/L	0.000172	0.1434	mg/L	0.00086	0.60%
Co 228.616†	1439.8	0.03744	mg/L	0.000159	0.1872	mg/L	0.00080	0.43%
Cr 267.716†	475.7	0.08114	mg/L	0.000694	0.4057	mg/L	0.00347	0.86%
Cu 324.752†	24275.1	0.1020	mg/L	0.00062	0.5098	mg/L	0.00308	0.60%
Fe 273.955†	104184.8	79.36	mg/L	1.441	396.8	mg/L	7.20	1.82%
K 766.490†	13766.3	7.216	mg/L	0.1143	36.08	mg/L	0.571	1.58%
Mg 279.077†	21626.3	15.85	mg/L	0.260	79.26	mg/L	1.299	1.64%
Mn 257.610†	163672.5	4.579	mg/L	0.0817	22.89	mg/L	0.409	1.79%
Mo 202.031†	70.7	0.00349	mg/L	0.000591	0.01747	mg/L	0.002953	16.90%
Na 589.592†	8667.0	0.7426	mg/L	0.01271	3.713	mg/L	0.0636	1.71%
Na 330.237†	16.2	0.5448	mg/L	0.16659	2.724	mg/L	0.8330	30.58%
Ni 231.604†	300.9	0.08049	mg/L	0.000334	0.4025	mg/L	0.00167	0.41%
Pb 220.353†	9700.0	1.311	mg/L	0.0043	6.556	mg/L	0.0214	0.33%
Sb 206.836†	18.6	0.00615	mg/L	0.001434	0.03074	mg/L	0.007170	23.33%
Se 196.026†	10.2	0.00751	mg/L	0.002799	0.03754	mg/L	0.013994	37.28%
Si 288.158†	2095.1	1.007	mg/L	0.0098	5.037	mg/L	0.0490	0.97%
Sn 189.927†	-9.5	-0.00017	mg/L	0.000873	-0.00087	mg/L	0.004367	502.58%
Sr 421.552†	148384.4	0.1735	mg/L	0.00297	0.8673	mg/L	0.01483	1.71%
Ti 334.903†	46238.1	2.226	mg/L	0.0387	11.13	mg/L	0.194	1.74%
Tl 190.801†	-17.9	0.00005	mg/L	0.000250	0.00023	mg/L	0.001252	555.70%
V 292.402†	12746.9	0.1030	mg/L	0.00052	0.5152	mg/L	0.00261	0.51%
Zn 206.200†	5885.4	1.646	mg/L	0.0133	8.230	mg/L	0.0663	0.81%

Sequence No.: 39
Sample ID: VR35 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 361
Date Collected: 11/19/2012 4:16:13 PM
Data Type: Original

Nebulizer Parameters: VR35 J SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2549449.6	106.9	%	0.36				0.33%
ScR 361.383	339994.5	111.3	%	1.05				0.94%
Ag 328.068†	20.8	0.00016	mg/L	0.000175	0.00079	mg/L	0.000877	111.03%
Al 308.215†	84940.5	50.84	mg/L	0.469	254.2	mg/L	2.35	0.92%
As 188.979†	15.1	0.06488	mg/L	0.001145	0.3244	mg/L	0.00572	1.76%
B 249.677†	30.8	0.00419	mg/L	0.001018	0.02095	mg/L	0.005088	24.29%
Ba 233.527†	5076.8	1.201	mg/L	0.0051	6.004	mg/L	0.0256	0.43%
Be 313.042†	1096.5	0.00173	mg/L	0.000020	0.00866	mg/L	0.000101	1.16%
Ca 317.933†	180983.1	13.61	mg/L	0.119	68.03	mg/L	0.593	0.87%
Cd 228.802†	791.2	0.02649	mg/L	0.000504	0.1324	mg/L	0.00252	1.90%
Co 228.616†	1048.0	0.02644	mg/L	0.000666	0.1322	mg/L	0.00333	2.52%
Cr 267.716†	451.7	0.07664	mg/L	0.000340	0.3832	mg/L	0.00170	0.44%
Cu 324.752†	18372.9	0.07726	mg/L	0.002125	0.3863	mg/L	0.01063	2.75%
Fe 273.955†	84228.0	64.16	mg/L	0.438	320.8	mg/L	2.19	0.68%
K 766.490†	10726.5	5.623	mg/L	0.0540	28.11	mg/L	0.270	0.96%
Mg 279.077†	20719.8	15.19	mg/L	0.134	75.97	mg/L	0.669	0.88%
Mn 257.610†	153540.6	4.295	mg/L	0.0323	21.48	mg/L	0.162	0.75%
Mo 202.031†	56.6	0.00279	mg/L	0.000091	0.01396	mg/L	0.000457	3.28%
Na 589.592†	6009.6	0.5149	mg/L	0.00466	2.574	mg/L	0.0233	0.90%
Na 330.237†	15.3	0.5488	mg/L	0.17690	2.744	mg/L	0.8845	32.24%
Ni 231.604†	240.9	0.06444	mg/L	0.001105	0.3222	mg/L	0.00553	1.72%
Pb 220.353†	8951.4	1.209	mg/L	0.0310	6.043	mg/L	0.1548	2.56%
Sb 206.836†	25.4	0.00824	mg/L	0.001440	0.04122	mg/L	0.007202	17.47%
Se 196.026†	12.7	0.00932	mg/L	0.002874	0.04658	mg/L	0.014370	30.85%
Si 288.158†	3487.3	1.675	mg/L	0.0113	8.377	mg/L	0.0565	0.67%
Sn 189.927†	-8.2	-0.00019	mg/L	0.000153	-0.00094	mg/L	0.000766	81.40%
Sr 421.552†	154007.4	0.1800	mg/L	0.00175	0.9002	mg/L	0.00877	0.97%
Ti 334.903†	41210.1	1.984	mg/L	0.0178	9.919	mg/L	0.0888	0.89%
Tl 190.801†	-10.6	0.00168	mg/L	0.002217	0.00840	mg/L	0.011087	132.02%
V 292.402†	11935.3	0.09690	mg/L	0.002210	0.4845	mg/L	0.01105	2.28%
Zn 206.200†	4876.1	1.364	mg/L	0.0060	6.819	mg/L	0.0300	0.44%

Sequence No.: 40
Sample ID: VR35 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 362
Date Collected: 11/19/2012 4:20:14 PM
Data Type: Original

Nebulizer Parameters: VR35 K SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2585324.5	108.4	%	0.55				0.51%
ScR 361.383	343399.2	112.4	%	2.04				1.81%
Ag 328.068†	-29.5	-0.00015	mg/L	0.000116	-0.00074	mg/L	0.000580	78.33%
Al 308.215†	56926.2	34.07	mg/L	0.526	170.3	mg/L	2.63	1.55%
As 188.979†	-55.8	0.03261	mg/L	0.002129	0.1630	mg/L	0.01065	6.53%
B 249.677†	54.8	0.00751	mg/L	0.001088	0.03753	mg/L	0.005441	14.50%
Ba 233.527†	1787.4	0.4157	mg/L	0.00735	2.078	mg/L	0.0367	1.77%
Be 313.042†	719.1	0.00111	mg/L	0.000060	0.00556	mg/L	0.000298	5.36%
Ca 317.933†	287300.9	21.60	mg/L	0.313	108.0	mg/L	1.56	1.45%
Cd 228.802†	761.2	0.02572	mg/L	0.000337	0.1286	mg/L	0.00169	1.31%
Co 228.616†	1072.9	0.02654	mg/L	0.000077	0.1327	mg/L	0.00038	0.29%
Cr 267.716†	513.5	0.08695	mg/L	0.000683	0.4347	mg/L	0.00342	0.79%
Cu 324.752†	17843.2	0.07507	mg/L	0.000264	0.3753	mg/L	0.00132	0.35%
Fe 273.955†	86204.2	65.66	mg/L	0.964	328.3	mg/L	4.82	1.47%
K 766.490†	18879.6	9.896	mg/L	0.1644	49.48	mg/L	0.822	1.66%
Mg 279.077†	25316.2	18.57	mg/L	0.272	92.86	mg/L	1.361	1.47%
Mn 257.610†	54068.8	1.513	mg/L	0.0221	7.565	mg/L	0.1104	1.46%
Mo 202.031†	47.2	0.00222	mg/L	0.000185	0.01108	mg/L	0.000924	8.34%
Na 589.592†	7570.4	0.6486	mg/L	0.00548	3.243	mg/L	0.0274	0.85%
Na 330.237†	11.2	0.4278	mg/L	0.25921	2.139	mg/L	1.2960	60.59%
Ni 231.604†	216.7	0.05796	mg/L	0.000638	0.2898	mg/L	0.00319	1.10%
Pb 220.353†	9048.1	1.218	mg/L	0.0102	6.088	mg/L	0.0508	0.83%
Sb 206.836†	11.6	0.00392	mg/L	0.001840	0.01961	mg/L	0.009199	46.91%
Se 196.026†	5.1	0.00370	mg/L	0.001322	0.01851	mg/L	0.006608	35.69%
Si 288.158†	1411.4	0.6796	mg/L	0.01455	3.398	mg/L	0.0728	2.14%
Sn 189.927†	-12.2	-0.00023	mg/L	0.000243	-0.00114	mg/L	0.001217	106.85%
Sr 421.552†	124781.5	0.1459	mg/L	0.00209	0.7294	mg/L	0.01047	1.44%
Ti 334.903†	48604.4	2.340	mg/L	0.0346	11.70	mg/L	0.173	1.48%
Tl 190.801†	-8.2	0.00281	mg/L	0.003956	0.01405	mg/L	0.019780	140.74%
V 292.402†	14700.6	0.1193	mg/L	0.00083	0.5963	mg/L	0.00417	0.70%
Zn 206.200†	5482.6	1.533	mg/L	0.0261	7.667	mg/L	0.1303	1.70%

Sequence No.: 41
Sample ID: VR35 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 363
Date Collected: 11/19/2012 4:24:14 PM
Data Type: Original

Nebulizer Parameters: VR35 L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2565626.7	107.6	%	0.38				0.35%
ScR 361.383	339449.0	111.2	%	0.97				0.87%
Ag 328.068†	172.3	0.00109	mg/L	0.000173	0.00547	mg/L	0.000867	15.85%
Al 308.215†	71007.6	42.50	mg/L	0.503	212.5	mg/L	2.52	1.18%
As 188.979†	96.1	0.1089	mg/L	0.00159	0.5443	mg/L	0.00794	1.46%
B 249.677†	19.1	0.00260	mg/L	0.000379	0.01302	mg/L	0.001896	14.56%
Ba 233.527†	2065.9	0.4855	mg/L	0.00484	2.428	mg/L	0.0242	1.00%
Be 313.042†	807.0	0.00127	mg/L	0.000024	0.00634	mg/L	0.000118	1.86%
Ca 317.933†	105237.0	7.912	mg/L	0.1039	39.56	mg/L	0.520	1.31%
Cd 228.802†	847.7	0.02826	mg/L	0.000148	0.1413	mg/L	0.00074	0.52%
Co 228.616†	639.3	0.01487	mg/L	0.000226	0.07435	mg/L	0.001129	1.52%
Cr 267.716†	278.2	0.04742	mg/L	0.000970	0.2371	mg/L	0.00485	2.04%
Cu 324.752†	28715.4	0.1187	mg/L	0.00071	0.5934	mg/L	0.00353	0.59%
Fe 273.955†	59085.6	45.01	mg/L	0.548	225.0	mg/L	2.74	1.22%
K 766.490†	6607.0	3.463	mg/L	0.0500	17.32	mg/L	0.250	1.44%
Mg 279.077†	14021.8	10.28	mg/L	0.107	51.41	mg/L	0.536	1.04%
Mn 257.610†	52422.7	1.467	mg/L	0.0188	7.334	mg/L	0.0938	1.28%
Mo 202.031†	36.9	0.00183	mg/L	0.000220	0.00916	mg/L	0.001099	12.00%
Na 589.592†	6357.6	0.5447	mg/L	0.00973	2.723	mg/L	0.0487	1.79%
Na 330.237†	18.8	0.7160	mg/L	0.05477	3.580	mg/L	0.2738	7.65%
Ni 231.604†	146.0	0.03907	mg/L	0.001249	0.1953	mg/L	0.00625	3.20%
Pb 220.353†	16137.5	2.170	mg/L	0.0124	10.85	mg/L	0.062	0.57%
Sb 206.836†	46.0	0.01514	mg/L	0.000924	0.07572	mg/L	0.004619	6.10%
Se 196.026†	8.9	0.00656	mg/L	0.002972	0.03279	mg/L	0.014862	45.33%
Si 288.158†	2471.5	1.187	mg/L	0.0116	5.937	mg/L	0.0581	0.98%
Sn 189.927†	10.4	0.00412	mg/L	0.000942	0.02061	mg/L	0.004709	22.85%
Sr 421.552†	68496.9	0.08007	mg/L	0.000939	0.4004	mg/L	0.00469	1.17%
Ti 334.903†	38058.2	1.832	mg/L	0.0211	9.162	mg/L	0.1055	1.15%
Tl 190.801†	-6.2	0.00167	mg/L	0.000113	0.00836	mg/L	0.000564	6.75%
V 292.402†	10095.7	0.08179	mg/L	0.000418	0.4090	mg/L	0.00209	0.51%
Zn 206.200†	4038.0	1.129	mg/L	0.0100	5.647	mg/L	0.0500	0.88%

Sequence No.: 42
Sample ID: VR37 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 364
Date Collected: 11/19/2012 4:28:14 PM
Data Type: Original

Nebulizer Parameters: VR37 B SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2576385.8	108.0	%	0.33				0.31%
ScR 361.383	342912.8	112.3	%	0.86				0.77%
Ag 328.068†	-148.8	-0.00090	mg/L	0.000321	-0.00450	mg/L	0.001605	35.70%
Al 308.215†	70113.1	41.96	mg/L	0.575	209.8	mg/L	2.87	1.37%
As 188.979†	-74.8	0.00753	mg/L	0.004104	0.03767	mg/L	0.020520	54.47%
B 249.677†	15.5	0.00211	mg/L	0.000290	0.01053	mg/L	0.001448	13.74%
Ba 233.527†	1361.8	0.3174	mg/L	0.00484	1.587	mg/L	0.0242	1.53%
Be 313.042†	669.5	0.00105	mg/L	0.000013	0.00523	mg/L	0.000064	1.22%
Ca 317.933†	99744.2	7.499	mg/L	0.0916	37.50	mg/L	0.458	1.22%
Cd 228.802†	21.5	0.00063	mg/L	0.000123	0.00313	mg/L	0.000613	19.58%
Co 228.616†	590.0	0.01342	mg/L	0.000508	0.06709	mg/L	0.002538	3.78%
Cr 267.716†	274.1	0.04691	mg/L	0.001282	0.2345	mg/L	0.00641	2.73%
Cu 324.752†	8420.0	0.03591	mg/L	0.001374	0.1796	mg/L	0.00687	3.83%
Fe 273.955†	59763.7	45.52	mg/L	0.723	227.6	mg/L	3.61	1.59%
K 766.490†	4467.6	2.342	mg/L	0.0418	11.71	mg/L	0.209	1.79%
Mg 279.077†	13219.4	9.692	mg/L	0.1326	48.46	mg/L	0.663	1.37%
Mn 257.610†	23557.6	0.6590	mg/L	0.01074	3.295	mg/L	0.0537	1.63%
Mo 202.031†	17.4	0.00082	mg/L	0.000115	0.00411	mg/L	0.000577	14.03%
Na 589.592†	6310.9	0.5407	mg/L	0.00575	2.704	mg/L	0.0288	1.06%
Na 330.237†	4.2	0.5225	mg/L	0.18870	2.612	mg/L	0.9435	36.12%
Ni 231.604†	141.5	0.03785	mg/L	0.001728	0.1893	mg/L	0.00864	4.56%
Pb 220.353†	114.9	0.02360	mg/L	0.001585	0.1180	mg/L	0.00793	6.72%
Sb 206.836†	-4.0	-0.00083	mg/L	0.001054	-0.00414	mg/L	0.005272	127.26%
Se 196.026†	7.0	0.00512	mg/L	0.002627	0.02558	mg/L	0.013133	51.34%
Si 288.158†	3539.3	1.700	mg/L	0.0282	8.498	mg/L	0.1409	1.66%
Sn 189.927†	-13.7	-0.00248	mg/L	0.000115	-0.01241	mg/L	0.000576	4.64%
Sr 421.552†	78359.4	0.09160	mg/L	0.001273	0.4580	mg/L	0.00636	1.39%
Ti 334.903†	37927.0	1.826	mg/L	0.0260	9.130	mg/L	0.1302	1.43%
Tl 190.801†	-14.5	-0.00190	mg/L	0.001135	-0.00948	mg/L	0.005677	59.91%
V 292.402†	10259.1	0.08301	mg/L	0.003036	0.4151	mg/L	0.01518	3.66%
Zn 206.200†	479.1	0.1340	mg/L	0.00099	0.6700	mg/L	0.00495	0.74%

Sequence No.: 43
Sample ID: CV 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 4:32:14 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2566778.0	107.6	%	0.95				0.88%
ScR 361.383	330718.2	108.3	%	1.54				1.42%
Ag 328.068†	156222.2	0.9703	mg/L	0.00326	0.9703	mg/L	0.00326	0.34%
Al 308.215†	3309.3	1.948	mg/L	0.0295	1.948	mg/L	0.0295	1.51%
As 188.979†	3296.2	1.974	mg/L	0.0149	1.974	mg/L	0.0149	0.76%
B 249.677†	6990.4	0.9638	mg/L	0.01174	0.9638	mg/L	0.01174	1.22%
Ba 233.527†	4159.9	0.9921	mg/L	0.01430	0.9921	mg/L	0.01430	1.44%
Be 313.042†	585518.9	0.9481	mg/L	0.01675	0.9481	mg/L	0.01675	1.77%
Ca 317.933†	24803.8	1.865	mg/L	0.0336	1.865	mg/L	0.0336	1.80%
Cd 228.802†	28942.5	0.9793	mg/L	0.00274	0.9793	mg/L	0.00274	0.28%
Co 228.616†	32879.6	0.9774	mg/L	0.00267	0.9774	mg/L	0.00267	0.27%
Cr 267.716†	5871.3	0.9874	mg/L	0.01230	0.9874	mg/L	0.01230	1.25%
Cu 324.752†	238628.3	0.9732	mg/L	0.00325	0.9732	mg/L	0.00325	0.33%
Fe 273.955†	2571.3	1.952	mg/L	0.0252	1.952	mg/L	0.0252	1.29%
K 766.490†	36799.9	19.29	mg/L	0.365	19.29	mg/L	0.365	1.89%
Mg 279.077†	2616.1	1.930	mg/L	0.0253	1.930	mg/L	0.0253	1.31%
Mn 257.610†	33646.4	0.9416	mg/L	0.01776	0.9416	mg/L	0.01776	1.89%
Mo 202.031†	18700.6	0.9720	mg/L	0.00804	0.9720	mg/L	0.00804	0.83%
Na 589.592†	579565.0	49.66	mg/L	0.770	49.66	mg/L	0.770	1.55%
Na 330.237†	1409.6	50.32	mg/L	0.480	50.32	mg/L	0.480	0.95%
Ni 231.604†	3668.7	0.9816	mg/L	0.01242	0.9816	mg/L	0.01242	1.26%
Pb 220.353†	14609.2	1.958	mg/L	0.0181	1.958	mg/L	0.0181	0.92%
Sb 206.836†	6287.8	2.002	mg/L	0.0202	2.002	mg/L	0.0202	1.01%
Se 196.026†	2621.5	1.940	mg/L	0.0135	1.940	mg/L	0.0135	0.70%
Si 288.158†	4078.3	1.957	mg/L	0.0278	1.957	mg/L	0.0278	1.42%
Sn 189.927†	3548.7	0.9542	mg/L	0.00732	0.9542	mg/L	0.00732	0.77%
Sr 421.552†	831791.8	0.9724	mg/L	0.01555	0.9724	mg/L	0.01555	1.60%
Ti 334.903†	19723.6	0.9487	mg/L	0.01713	0.9487	mg/L	0.01713	1.81%
Tl 190.801†	4470.6	1.948	mg/L	0.0204	1.948	mg/L	0.0204	1.05%
V 292.402†	116396.6	0.9725	mg/L	0.00287	0.9725	mg/L	0.00287	0.29%
Zn 206.200†	3591.7	1.004	mg/L	0.0113	1.004	mg/L	0.0113	1.12%

Sequence No.: 44
Sample ID: CB 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 4:37:07 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2528632.6	106.0	%	0.33				0.31%
ScR 361.383	335617.5	109.9	%	1.20				1.09%
Ag 328.068†	10.6	0.00007	mg/L	0.000196	0.00007	mg/L	0.000196	297.61%
Al 308.215†	9.1	0.00542	mg/L	0.003831	0.00542	mg/L	0.003831	70.72%
As 188.979†	2.6	0.00152	mg/L	0.003636	0.00152	mg/L	0.003636	238.67%
B 249.677†	4.8	0.00066	mg/L	0.000675	0.00066	mg/L	0.000675	101.56%
Ba 233.527†	-1.3	-0.00030	mg/L	0.000980	-0.00030	mg/L	0.000980	322.40%
Be 313.042†	21.2	0.00003	mg/L	0.000046	0.00003	mg/L	0.000046	134.16%
Ca 317.933†	-7.0	-0.00053	mg/L	0.000453	-0.00053	mg/L	0.000453	86.21%
Cd 228.802†	-4.0	-0.00015	mg/L	0.000124	-0.00015	mg/L	0.000124	85.47%
Co 228.616†	6.1	0.00018	mg/L	0.000037	0.00018	mg/L	0.000037	20.47%
Cr 267.716†	8.0	0.00134	mg/L	0.000636	0.00134	mg/L	0.000636	47.46%
Cu 324.752†	-12.6	-0.00005	mg/L	0.000028	-0.00005	mg/L	0.000028	55.17%
Fe 273.955†	12.8	0.00974	mg/L	0.002070	0.00974	mg/L	0.002070	21.26%
K 766.490†	-67.3	-0.03526	mg/L	0.016289	-0.03526	mg/L	0.016289	46.20%
Mg 279.077†	-8.5	-0.00627	mg/L	0.003143	-0.00627	mg/L	0.003143	50.14%
Mn 257.610†	12.3	0.00034	mg/L	0.000021	0.00034	mg/L	0.000021	6.12%
Mo 202.031†	13.4	0.00069	mg/L	0.000216	0.00069	mg/L	0.000216	31.18%
Na 589.592†	193.9	0.01661	mg/L	0.002091	0.01661	mg/L	0.002091	12.59%
Na 330.237†	6.2	0.2205	mg/L	0.78207	0.2205	mg/L	0.78207	354.68%
Ni 231.604†	9.3	0.00248	mg/L	0.001826	0.00248	mg/L	0.001826	73.64%
Pb 220.353†	-0.8	-0.00010	mg/L	0.000822	-0.00010	mg/L	0.000822	809.79%
Sb 206.836†	7.3	0.00231	mg/L	0.000575	0.00231	mg/L	0.000575	24.86%
Se 196.026†	0.3	0.00025	mg/L	0.000921	0.00025	mg/L	0.000921	369.38%
Si 288.158†	-1.3	-0.00063	mg/L	0.003388	-0.00063	mg/L	0.003388	533.83%
Sn 189.927†	-0.5	-0.00013	mg/L	0.000704	-0.00013	mg/L	0.000704	523.38%
Sr 421.552†	59.1	0.00007	mg/L	0.000003	0.00007	mg/L	0.000003	5.06%
Ti 334.903†	3.5	0.00017	mg/L	0.001577	0.00017	mg/L	0.001577	938.29%
Tl 190.801†	0.4	0.00018	mg/L	0.001041	0.00018	mg/L	0.001041	567.07%
V 292.402†	3.8	0.00004	mg/L	0.000068	0.00004	mg/L	0.000068	179.49%
Zn 206.200†	-0.4	-0.00011	mg/L	0.000492	-0.00011	mg/L	0.000492	442.41%

Sequence No.: 45
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/19/2012 4:41:22 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	223.0 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	2569652.8	107.8	%	0.79				0.74%
ScR 361.383	337454.4	110.5	%	0.83				0.75%
Ag 328.068†	486.3	0.00302	mg/L	0.000058	0.00302	mg/L	0.000058	1.91%
Al 308.215†	90.4	0.05398	mg/L	0.001565	0.05398	mg/L	0.001565	2.90%
As 188.979†	85.0	0.05042	mg/L	0.000440	0.05042	mg/L	0.000440	0.87%
B 249.677†	141.3	0.01949	mg/L	0.000767	0.01949	mg/L	0.000767	3.94%
Ba 233.527†	10.9	0.00259	mg/L	0.000400	0.00259	mg/L	0.000400	15.44%
Be 313.042†	569.5	0.00092	mg/L	0.000039	0.00092	mg/L	0.000039	4.21%
Ca 317.933†	681.5	0.05124	mg/L	0.001101	0.05124	mg/L	0.001101	2.15%
Cd 228.802†	58.6	0.00168	mg/L	0.000062	0.00168	mg/L	0.000062	3.68%
Co 228.616†	119.9	0.00356	mg/L	0.000322	0.00356	mg/L	0.000322	9.04%
Cr 267.716†	37.1	0.00624	mg/L	0.000088	0.00624	mg/L	0.000088	1.40%
Cu 324.752†	408.3	0.00167	mg/L	0.000090	0.00167	mg/L	0.000090	5.41%
Fe 273.955†	78.4	0.05970	mg/L	0.001965	0.05970	mg/L	0.001965	3.29%
K 766.490†	836.2	0.4383	mg/L	0.01687	0.4383	mg/L	0.01687	3.85%
Mg 279.077†	57.8	0.04249	mg/L	0.003564	0.04249	mg/L	0.003564	8.39%
Mn 257.610†	46.3	0.00130	mg/L	0.000131	0.00130	mg/L	0.000131	10.07%
Mo 202.031†	89.7	0.00466	mg/L	0.000220	0.00466	mg/L	0.000220	4.72%
Na 589.592†	5752.6	0.4929	mg/L	0.00540	0.4929	mg/L	0.00540	1.09%
Na 330.237†	17.9	0.6395	mg/L	0.50144	0.6395	mg/L	0.50144	78.41%
Ni 231.604†	45.2	0.01210	mg/L	0.000642	0.01210	mg/L	0.000642	5.30%
Pb 220.353†	147.2	0.01975	mg/L	0.000194	0.01975	mg/L	0.000194	0.98%
Sb 206.836†	149.7	0.04770	mg/L	0.001948	0.04770	mg/L	0.001948	4.08%
Se 196.026†	71.3	0.05277	mg/L	0.002735	0.05277	mg/L	0.002735	5.18%
Si 288.158†	122.4	0.05870	mg/L	0.003317	0.05870	mg/L	0.003317	5.65%
Sn 189.927†	35.3	0.00949	mg/L	0.000425	0.00949	mg/L	0.000425	4.48%
Sr 421.552†	874.2	0.00102	mg/L	0.000015	0.00102	mg/L	0.000015	1.43%
Ti 334.903†	87.6	0.00421	mg/L	0.000714	0.00421	mg/L	0.000714	16.95%
Tl 190.801†	113.3	0.04954	mg/L	0.000042	0.04954	mg/L	0.000042	0.09%
V 292.402†	364.1	0.00305	mg/L	0.000110	0.00305	mg/L	0.000110	3.62%
Zn 206.200†	36.4	0.01017	mg/L	0.000378	0.01017	mg/L	0.000378	3.72%

Sequence No.: 46
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/19/2012 4:45:38 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	222.0 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	2514536.2	105.4	%	0.59				0.56%
ScR 361.383	329654.3	107.9	%	0.79				0.73%
Ag 328.068†	-157.8	-0.00098	mg/L	0.000090	-0.00098	mg/L	0.000090	9.22%
Al 308.215†	318485.8	190.6	mg/L	2.05	190.6	mg/L	2.05	1.08%
As 188.979†	38.6	0.01746	mg/L	0.001987	0.01746	mg/L	0.001987	11.38%
B 249.677†	-22.0	-0.00304	mg/L	0.002909	-0.00304	mg/L	0.002909	95.67%
Ba 233.527†	122.0	-0.00096	mg/L	0.000884	-0.00096	mg/L	0.000884	92.49%
Be 313.042†	20.3	0.00003	mg/L	0.000008	0.00003	mg/L	0.000008	25.12%
Ca 317.933†	1262453.2	94.92	mg/L	1.310	94.92	mg/L	1.310	1.38%
Cd 228.802†	45.6	-0.00033	mg/L	0.000195	-0.00033	mg/L	0.000195	58.38%
Co 228.616†	65.2	-0.00046	mg/L	0.000156	-0.00046	mg/L	0.000156	34.09%
Cr 267.716†	23.9	0.00185	mg/L	0.001466	0.00185	mg/L	0.001466	79.35%
Cu 324.752†	-1945.8	-0.00065	mg/L	0.000084	-0.00065	mg/L	0.000084	12.91%
Fe 273.955†	241017.9	183.6	mg/L	2.71	183.6	mg/L	2.71	1.48%
K 766.490†	-52.9	-0.02772	mg/L	0.012362	-0.02772	mg/L	0.012362	44.60%
Mg 279.077†	134087.3	98.45	mg/L	1.350	98.45	mg/L	1.350	1.37%
Mn 257.610†	37.7	0.00099	mg/L	0.000517	0.00099	mg/L	0.000517	52.06%
Mo 202.031†	34.9	0.00079	mg/L	0.000056	0.00079	mg/L	0.000056	7.12%
Na 589.592†	339.4	0.02908	mg/L	0.002048	0.02908	mg/L	0.002048	7.04%
Na 330.237†	1.6	0.05618	mg/L	0.025642	0.05618	mg/L	0.025642	45.64%
Ni 231.604†	5.8	0.00157	mg/L	0.001115	0.00157	mg/L	0.001115	71.07%
Pb 220.353†	-281.5	0.00037	mg/L	0.000690	0.00037	mg/L	0.000690	188.21%
Sb 206.836†	3.9	0.00107	mg/L	0.001969	0.00107	mg/L	0.001969	184.71%
Se 196.026†	15.2	0.01124	mg/L	0.009395	0.01124	mg/L	0.009395	83.55%
Si 288.158†	-29.9	-0.00245	mg/L	0.001844	-0.00245	mg/L	0.001844	75.37%
Sn 189.927†	-65.1	-0.00574	mg/L	0.001205	-0.00574	mg/L	0.001205	21.01%
Sr 421.552†	3302.7	0.00386	mg/L	0.000064	0.00386	mg/L	0.000064	1.67%
Ti 334.903†	116.6	0.00108	mg/L	0.000070	0.00108	mg/L	0.000070	6.42%
Tl 190.801†	-59.6	-0.00649	mg/L	0.000726	-0.00649	mg/L	0.000726	11.19%
V 292.402†	1328.8	0.00465	mg/L	0.000150	0.00465	mg/L	0.000150	3.23%
Zn 206.200†	13.0	0.00362	mg/L	0.000936	0.00362	mg/L	0.000936	25.82%

Cont.

Sequence No.: 47
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/19/2012 4:49:54 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	222.0 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	2541478.8	106.6	%	0.74				0.70%
ScR 361.383	331638.8	108.6	%	1.22				1.12%
Ag 328.068†	158228.0	0.9828	mg/L	0.00442	0.9828	mg/L	0.00442	0.45%
Al 308.215†	316329.9	189.3	mg/L	1.68	189.3	mg/L	1.68	0.89%
As 188.979†	1693.6	0.9966	mg/L	0.00960	0.9966	mg/L	0.00960	0.96%
B 249.677†	-2.2	-0.00224	mg/L	0.000512	-0.00224	mg/L	0.000512	22.83%
Ba 233.527†	4269.0	0.9880	mg/L	0.01277	0.9880	mg/L	0.01277	1.29%
Be 313.042†	591782.2	0.9583	mg/L	0.00921	0.9583	mg/L	0.00921	0.96%
Ca 317.933†	1275783.0	95.92	mg/L	0.940	95.92	mg/L	0.940	0.98%
Cd 228.802†	28713.0	0.9760	mg/L	0.00300	0.9760	mg/L	0.00300	0.31%
Co 228.616†	31622.0	0.9393	mg/L	0.00303	0.9393	mg/L	0.00303	0.32%
Cr 267.716†	5868.4	0.9853	mg/L	0.01260	0.9853	mg/L	0.01260	1.28%
Cu 324.752†	241572.5	0.9932	mg/L	0.00418	0.9932	mg/L	0.00418	0.42%
Fe 273.955†	243452.3	185.4	mg/L	1.85	185.4	mg/L	1.85	1.00%
K 766.490†	-135.4	-0.07096	mg/L	0.007550	-0.07096	mg/L	0.007550	10.64%
Mg 279.077†	129522.8	95.10	mg/L	0.946	95.10	mg/L	0.946	0.99%
Mn 257.610†	33088.8	0.9257	mg/L	0.00854	0.9257	mg/L	0.00854	0.92%
Mo 202.031†	45.6	0.00128	mg/L	0.000209	0.00128	mg/L	0.000209	16.32%
Na 589.592†	422.3	0.03618	mg/L	0.001654	0.03618	mg/L	0.001654	4.57%
Na 330.237†	11.9	0.1133	mg/L	0.35920	0.1133	mg/L	0.35920	317.03%
Ni 231.604†	3579.7	0.9576	mg/L	0.01022	0.9576	mg/L	0.01022	1.07%
Pb 220.353†	6788.3	0.9476	mg/L	0.00711	0.9476	mg/L	0.00711	0.75%
Sb 206.836†	3069.4	0.9672	mg/L	0.00968	0.9672	mg/L	0.00968	1.00%
Se 196.026†	1323.5	0.9789	mg/L	0.01361	0.9789	mg/L	0.01361	1.39%
Si 288.158†	-30.1	0.00061	mg/L	0.000754	0.00061	mg/L	0.000754	122.66%
Sn 189.927†	-66.1	-0.00541	mg/L	0.000771	-0.00541	mg/L	0.000771	14.26%
Sr 421.552†	3241.2	0.00379	mg/L	0.000062	0.00379	mg/L	0.000062	1.65%
Ti 334.903†	114.5	0.00074	mg/L	0.000135	0.00074	mg/L	0.000135	18.30%
Tl 190.801†	2071.2	0.9170	mg/L	0.00894	0.9170	mg/L	0.00894	0.97%
V 292.402†	114200.6	0.9478	mg/L	0.00338	0.9478	mg/L	0.00338	0.36%
Zn 206.200†	3388.1	0.9475	mg/L	0.01220	0.9475	mg/L	0.01220	1.29%

Conf.

Sequence No.: 48
Sample ID: CV 11
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 4:53:43 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	2530090.7	106.1	%	0.58				0.55%
ScR 361.383	331314.2	108.5	%	1.64				1.52%
Ag 328.068†	167040.2	1.038	mg/L	0.0082	1.038	mg/L	0.0082	0.79%
Al 308.215†	3347.3	1.970	mg/L	0.0379	1.970	mg/L	0.0379	1.93%
As 188.979†	3410.7	2.042	mg/L	0.0103	2.042	mg/L	0.0103	0.50%
B 249.677†	7027.8	0.9689	mg/L	0.02071	0.9689	mg/L	0.02071	2.14%
Ba 233.527†	4215.0	1.005	mg/L	0.0208	1.005	mg/L	0.0208	2.07%
Be 313.042†	585617.2	0.9482	mg/L	0.01914	0.9482	mg/L	0.01914	2.02%
Ca 317.933†	25158.6	1.892	mg/L	0.0322	1.892	mg/L	0.0322	1.70%
Cd 228.802†	30083.7	1.018	mg/L	0.0055	1.018	mg/L	0.0055	0.54%
Co 228.616†	34080.5	1.013	mg/L	0.0065	1.013	mg/L	0.0065	0.64%
Cr 267.716†	5919.9	0.9956	mg/L	0.02068	0.9956	mg/L	0.02068	2.08%
Cu 324.752†	241373.1	0.9844	mg/L	0.00129	0.9844	mg/L	0.00129	0.13%
Fe 273.955†	2616.0	1.985	mg/L	0.0321	1.985	mg/L	0.0321	1.62%
K 766.490†	36597.9	19.18	mg/L	0.389	19.18	mg/L	0.389	2.03%
Mg 279.077†	2668.4	1.968	mg/L	0.0410	1.968	mg/L	0.0410	2.08%
Mn 257.610†	33591.1	0.9400	mg/L	0.01847	0.9400	mg/L	0.01847	1.96%
Mo 202.031†	18853.8	0.9800	mg/L	0.00680	0.9800	mg/L	0.00680	0.69%
Na 589.592†	575722.0	49.33	mg/L	0.961	49.33	mg/L	0.961	1.95%
Na 330.237†	1405.1	50.16	mg/L	0.759	50.16	mg/L	0.759	1.51%
Ni 231.604†	3727.8	0.9974	mg/L	0.02034	0.9974	mg/L	0.02034	2.04%
Pb 220.353†	14765.5	1.979	mg/L	0.0077	1.979	mg/L	0.0077	0.39%
Sb 206.836†	6514.5	2.074	mg/L	0.0118	2.074	mg/L	0.0118	0.57%
Se 196.026†	2698.3	1.997	mg/L	0.0117	1.997	mg/L	0.0117	0.59%
Si 288.158†	4095.5	1.965	mg/L	0.0448	1.965	mg/L	0.0448	2.28%
Sn 189.927†	3660.6	0.9843	mg/L	0.00315	0.9843	mg/L	0.00315	0.32%
Sr 421.552†	825261.3	0.9647	mg/L	0.02019	0.9647	mg/L	0.02019	2.09%
Ti 334.903†	19644.6	0.9449	mg/L	0.01940	0.9449	mg/L	0.01940	2.05%
Tl 190.801†	4603.8	2.005	mg/L	0.0080	2.005	mg/L	0.0080	0.40%
V 292.402†	123095.6	1.028	mg/L	0.0076	1.028	mg/L	0.0076	0.74%
Zn 206.200†	3660.9	1.024	mg/L	0.0210	1.024	mg/L	0.0210	2.05%

Sequence No.: 49
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 4:58:51 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2533022.8	106.2	%	0.31				0.29%
ScR 361.383	334275.5	109.5	%	0.94				0.86%
Ag 328.068†	14.4	0.00009	mg/L	0.000116	0.00009	mg/L	0.000116	129.32%
Al 308.215†	8.9	0.00531	mg/L	0.006394	0.00531	mg/L	0.006394	120.38%
As 188.979†	1.3	0.00077	mg/L	0.001238	0.00077	mg/L	0.001238	160.75%
B 249.677†	9.3	0.00129	mg/L	0.000255	0.00129	mg/L	0.000255	19.82%
Ba 233.527†	-1.9	-0.00044	mg/L	0.000687	-0.00044	mg/L	0.000687	154.94%
Be 313.042†	56.1	0.00009	mg/L	0.000060	0.00009	mg/L	0.000060	66.01%
Ca 317.933†	54.6	0.00410	mg/L	0.000723	0.00410	mg/L	0.000723	17.62%
Cd 228.802†	-4.6	-0.00016	mg/L	0.000055	-0.00016	mg/L	0.000055	33.90%
Co 228.616†	3.6	0.00011	mg/L	0.000134	0.00011	mg/L	0.000134	122.91%
Cr 267.716†	7.0	0.00118	mg/L	0.000737	0.00118	mg/L	0.000737	62.52%
Cu 324.752†	-27.4	-0.00011	mg/L	0.000085	-0.00011	mg/L	0.000085	76.66%
Fe 273.955†	13.2	0.01007	mg/L	0.000431	0.01007	mg/L	0.000431	4.28%
K 766.490†	-45.0	-0.02360	mg/L	0.008389	-0.02360	mg/L	0.008389	35.54%
Mg 279.077†	0.3	0.00020	mg/L	0.004164	0.00020	mg/L	0.004164	>999.9%
Mn 257.610†	-2.7	-0.00008	mg/L	0.000094	-0.00008	mg/L	0.000094	124.96%
Mo 202.031†	10.4	0.00054	mg/L	0.000134	0.00054	mg/L	0.000134	24.66%
Na 589.592†	200.2	0.01715	mg/L	0.001828	0.01715	mg/L	0.001828	10.66%
Na 330.237†	2.8	0.09849	mg/L	0.428855	0.09849	mg/L	0.428855	435.43%
Ni 231.604†	10.7	0.00285	mg/L	0.000606	0.00285	mg/L	0.000606	21.25%
Pb 220.353†	-4.6	-0.00061	mg/L	0.000358	-0.00061	mg/L	0.000358	58.67%
Sb 206.836†	2.0	0.00062	mg/L	0.001372	0.00062	mg/L	0.001372	221.44%
Se 196.026†	2.6	0.00195	mg/L	0.003669	0.00195	mg/L	0.003669	187.79%
Si 288.158†	2.4	0.00115	mg/L	0.004033	0.00115	mg/L	0.004033	351.95%
Sn 189.927†	1.8	0.00049	mg/L	0.000734	0.00049	mg/L	0.000734	151.17%
Sr 421.552†	58.0	0.00007	mg/L	0.000037	0.00007	mg/L	0.000037	55.19%
Ti 334.903†	-9.5	-0.00046	mg/L	0.001329	-0.00046	mg/L	0.001329	289.88%
Tl 190.801†	-0.7	-0.00031	mg/L	0.000607	-0.00031	mg/L	0.000607	195.50%
V 292.402†	4.2	0.00004	mg/L	0.000200	0.00004	mg/L	0.000200	501.42%
Zn 206.200†	-1.4	-0.00039	mg/L	0.000605	-0.00039	mg/L	0.000605	154.60%

Mercury Analysis Log

Analyst: DM Date: 11-7-12

Instrument: CETAC Page: 1 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	DNM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.26	Bkg in CUP %R=91 ✓
ICB			-0.01	✓
CCV1			3.69	%R=92 ✓
CCB1			-0.00	✓
CRA			0.10	✓
VSIB MB1			0.01	✓
" MB1SPK			1.90	%R=95 ✓
" A			1.08	
" ADUP			1.05	RPD=2.81 ✓
" ASPK			2.04	%R=96 ✓
" B				
" C				
" D				
" E				
CCV2			3.65	%R=91 ✓
CCB2			0.00	✓
VSIB F				DIL CVOUT
" G				
" H				
" I				
" J				
" K				
" L	↓	↓		↓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391 14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7 ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 2 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR37 MB1	5mm	1x	0.00	DEL CN out ✓
" MB1SPK			2.04	%R=102 ✓
" A			0.19	
CCV3			1.76	%R=44 LOW X
CCV4			3.63	%R=91 ✓
CCB3			0.00	✓
VS18 F				
" G				
" H				
" I				
" J				
" K				
" L				
VR37 MB1			0.01	✓
" MB1SPK			1.74	%R=87 ✓
" A			0.16	
CCV5			3.59	%R=90 ✓
CCB4			0.00	✓
VR37 ADUP			0.15	✓
" ASPK			1.12	%R=96 ✓
" B				
" C				
" D				
" E				
" F				
" G				
" H				
" I				
CCV6			3.60	%R=90 ✓
CCB5	↓	↓	0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-7-12

Page: 3 of 10

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments
VR57	J	SMM	1X		
"	K				
"	L				
"	M				
"	N				
"	O				
VR58	MBI			-0.00	✓
"	MBISPK			1.81	%R=91 ✓
"	A			0.11	
"	AOUP			0.10	✓
CCV7				3.64	%R=91 ✓
CCB6				0.00	✓
VR58	ASPK			1.07	%R=96 ✓
"	B				
"	C				
"	D				
"	E				
"	F				
"	G				
"	H				
"	I				
"	J				
CCV8				3.61	%R=90 ✓
CCB7				-0.00	✓
VR82	A				
"	B				
"	C				
"	D				
"	E				
"	F	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2340

Standard ID:

Standard: 2992-7

ICV/CCV: 5L-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 4 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR82 G	SMM	1X		
" H				
" I				
CCV9			3.56	%R=89 ✓
CCB8			0.00	✓
VR80 MB1			-0.00	✓
" MB1SPK			1.82	%R=91 ✓
" A			0.92	
" ADUP			0.93	RPD=1.08 ✓
" ASPK			1.78	%R=86 ✓
" B				
" C				
" D				
" E				
" F				
CCV10			3.71	%R=93 ✓
CCB9			-0.00	✓
VR80 G				
" H				
" I				
" J				
" K				
" L				
VR86 MB1			0.00	✓
" MB1SPK			1.89	%R=95 ✓
" A			0.77	
" ADUP			0.74	RPD=3.97 ✓
CCV11			3.72	%R=93 ✓
CCB10			0.00	✓
VR86 ASPK	↓	↓	1.72	%R=95 ✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2092-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 5 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR36 B	SMM	1X		
" C				
" D				
" E				
" F				
" G				
" H				
" I				
" J				
CCV12			3.66	%R=92 ✓
CCB11			-0.00	✓
VR36 K				
" L				
VR35 MB1			0.00	✓
" MB1SPK			1.84	%R=92 ✓
" A			0.34	
" APDUP			0.34	✓
" ASPK			1.29	%R=95 ✓
" B				
" C				
" D				
CCV13			3.61	%R=90 ✓
CCB12			-0.03	✓
VR35 E				
" F				
" G				
" H				
" I				
" J				
" K	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2992-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM Date: 11-17-12

Instrument: CETAC Page: 6 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR35 L	5mm	1X		
CCV14			3.55	%R=89 ✓
CCB13			-0.00	✓
VR32 MB1			0.01	✓
" MBSPK			1.79	%R=90 ✓
" A			0.47	
" ADUP			0.44	✓
" ASPK			1.37	%R=90 ✓
" B				
" C				
" D				
" E				
" F				
CCV15			3.45	%R=86 ✓
CCB14			-0.00	✓
VR32 G				
" H				
" I				
" J				
" K				
" L				
VR65 MB1			0.03	✓
" MBSPK			1.74	%R=87 ✓
" A			1.22	
" ADUP			1.18	RPD=3.33 ✓
CCV16			3.54	%R=89 ✓
CCB15			0.00	✓
VR65 ASPK			2.08	%R=86 ✓
" B				
" C				

Chemical/Reagent ID:

10% $SnCl_2$: MP2391 14% NH_2OH/NaCl: MP2320

Standard ID:

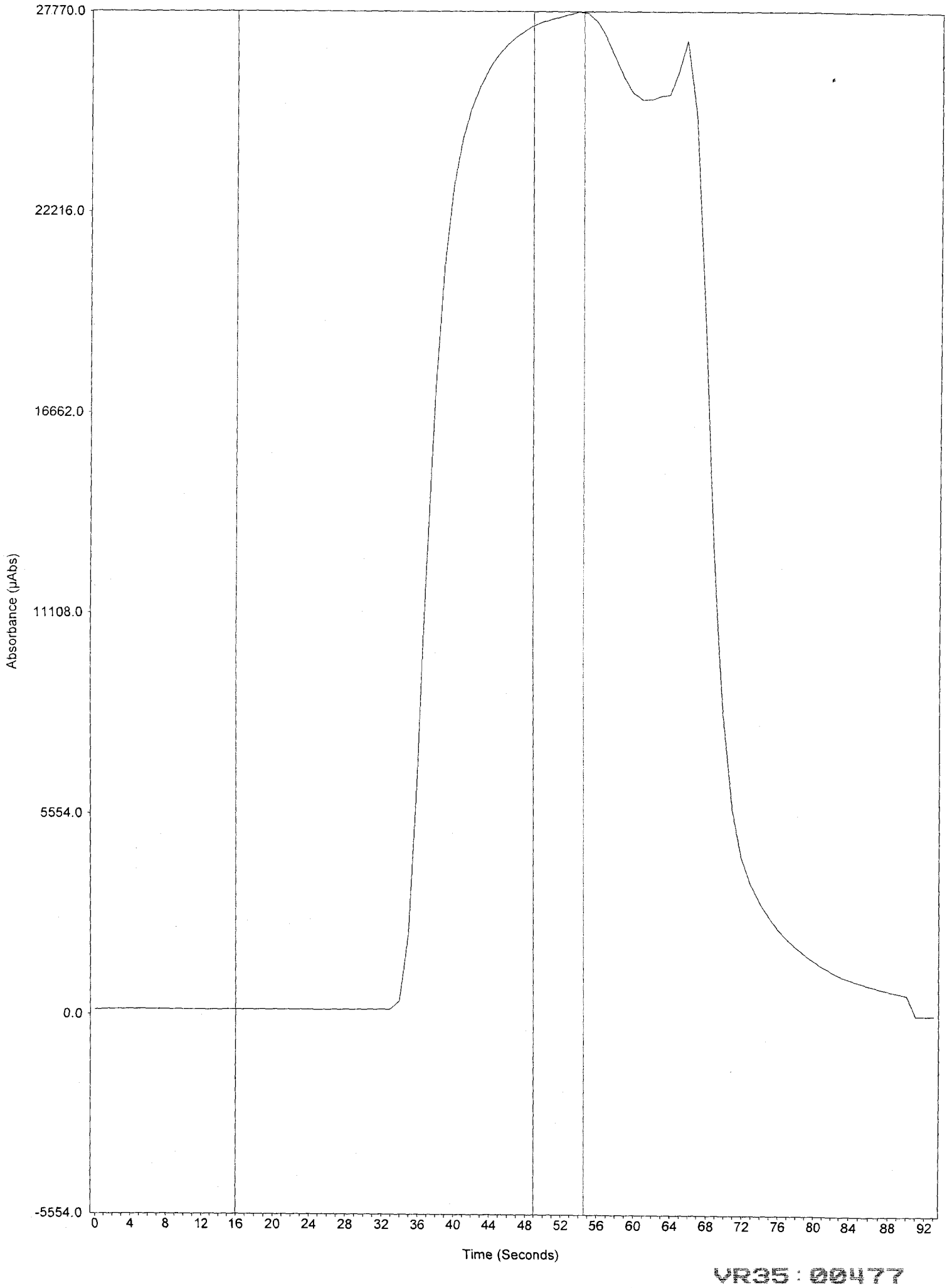
Standard: 2992-7 ICV/CCV: 56-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 11-17-12

	Analyst 11-17 DM	Peer 11-19	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 RUN 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	✓	✓	SEE VR33 ASAC
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	✓	✓	SEE CAF


27770.0
22216.0
16662.0
11108.0
5554.0
0.0
-5554.0
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)
VR35 : 00477

CETAC Hg Analysis Report - 12111700.DB - Saturday, November 17, 2012, 2:36:51 PM

11-19-12

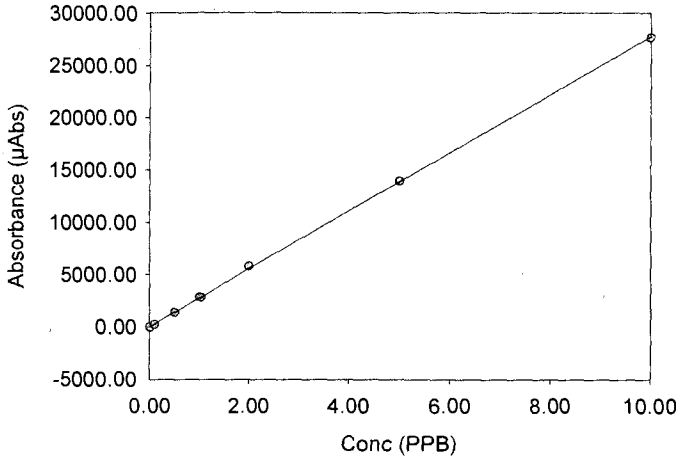
Analyst
Date Started Saturday, November 17, 2012, 06:44:12
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	17-Nov-2012, 06:44	10.00	0.46	27500.00	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	17-Nov-2012, 06:46	0.00	4.58	-33.10	1.00	
Standard #1	17-Nov-2012, 06:47	0.10	0.53	261.00	1.00	
Standard #2	17-Nov-2012, 06:49	0.50	0.24	1400.00	1.00	
Standard #3	17-Nov-2012, 06:51	1.00	0.45	2840.00	1.00	
Standard #4	17-Nov-2012, 06:52	2.00	0.54	5790.00	1.00	
Standard #5	17-Nov-2012, 06:54	5.00	0.29	14000.00	1.00	
Standard #6	17-Nov-2012, 06:56	10.00	0.39	27700.00	1.00	

Calibration Data



Int.	0.000
Slope	2778.015
Correlation	0.99994

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	17-Nov-2012, 07:05	7.26	0.75	20200.00	1.00	
ICB	17-Nov-2012, 07:06	-0.01	13.00	-18.40	1.00	

Bcg: 9 CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:08	3.69	0.28	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:09	-0.00	56.00	-2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	17-Nov-2012, 07:11	0.10	0.42	267.00	1.00	
VS18 MB1 SMM	17-Nov-2012, 07:13	0.01	13.00	20.30	1.00	
VS18 MB1SPK SMM	17-Nov-2012, 07:14	1.90	0.60	5270.00	1.00	
VS18 A SMM	17-Nov-2012, 07:16	1.08	0.64	3000.00	1.00	
VS18 ADUP SMM	17-Nov-2012, 07:17	1.05	0.46	2910.00	1.00	
VS18 ASPK SMM	17-Nov-2012, 07:19	2.04	0.80	5660.00	1.00	
VS18 B SMM	17-Nov-2012, 07:21	0.70	0.68	1940.00	1.00	
VS18 C SMM	17-Nov-2012, 07:22	0.59	0.86	1640.00	1.00	
VS18 D SMM	17-Nov-2012, 07:24	0.77	0.48	2150.00	1.00	
VS18 E SMM	17-Nov-2012, 07:26	0.71	0.45	1970.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:27	3.65	0.49	10100.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 07:29:22
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:29	0.00	11.10	10.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 07:31	0.31	1.08	873.00	1.00	
VS18 G SMM	17-Nov-2012, 07:32	0.25	0.62	691.00	1.00	
VS18 H SMM	17-Nov-2012, 07:34	1.02	1.42	2840.00	1.00	
VS18 I SMM	17-Nov-2012, 07:35	3.94	0.68	10900.00	1.00	
VS18 J SMM	17-Nov-2012, 07:37	2.53	0.19	7030.00	1.00	
VS18 K SMM	17-Nov-2012, 07:38	1.94	0.22	5380.00	1.00	
VS18 L SMM	17-Nov-2012, 07:40	0.88	0.27	2440.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 07:42	0.00	17.70	12.90	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 07:43	2.04	0.47	5660.00	1.00	
VR37 A SMM	17-Nov-2012, 07:45	0.19	0.58	514.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:47	1.76	0.86	4880.00	1.00	Q - Low QR
QC Standard	17-Nov-2012, 07:58	3.63	0.54	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:00	0.00	11.60	11.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 08:02	0.30	0.58	846.00	1.00	
VS18 G SMM	17-Nov-2012, 08:03	0.25	0.72	683.00	1.00	
VS18 H SMM	17-Nov-2012, 08:05	1.00	0.78	2780.00	1.00	
VS18 I SMM	17-Nov-2012, 08:06	3.88	0.67	10800.00	1.00	
VS18 J SMM	17-Nov-2012, 08:08	2.42	0.57	6730.00	1.00	
VS18 K SMM	17-Nov-2012, 08:09	1.81	0.67	5030.00	1.00	
VS18 L SMM	17-Nov-2012, 08:11	0.79	0.94	2190.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 08:13	0.01	4.00	19.20	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 08:14	1.74	0.56	4840.00	1.00	
VR37 A SMM	17-Nov-2012, 08:16	0.16	1.44	442.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:18	3.59	0.50	9980.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:19	0.00	13.00	9.15	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 ADUP SMM	17-Nov-2012, 08:21	0.15	0.54	416.00	1.00	
VR37 ASPK SMM	17-Nov-2012, 08:23	1.12	0.62	3120.00	1.00	
VR37 B SMM	17-Nov-2012, 08:24	0.09	0.36	242.00	1.00	
VR37 C SMM	17-Nov-2012, 08:26	0.28	1.03	768.00	1.00	
VR37 D SMM	17-Nov-2012, 08:27	1.41	0.61	3910.00	1.00	
VR37 E SMM	17-Nov-2012, 08:29	2.23	0.82	6190.00	1.00	
VR37 F SMM	17-Nov-2012, 08:31	0.79	0.67	2210.00	1.00	
VR37 G SMM	17-Nov-2012, 08:32	2.39	0.51	6630.00	1.00	
VR37 H SMM	17-Nov-2012, 08:34	3.87	0.37	10800.00	1.00	
VR37 I SMM	17-Nov-2012, 08:35	0.48	0.20	1340.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:37	3.60	0.66	9990.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:39	0.00	124.00	1.77	1.00	

Analyst
Date Started Saturday, November 17, 2012, 08:40:49
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 J SMM	17-Nov-2012, 08:40	1.27	0.51	3520.00	1.00	
VR37 K SMM	17-Nov-2012, 08:42	1.51	2.55	4190.00	1.00	
VR37 L SMM	17-Nov-2012, 08:44	1.16	0.58	3220.00	1.00	
VR37 M SMM	17-Nov-2012, 08:45	1.05	0.38	2900.00	1.00	
VR37 N SMM	17-Nov-2012, 08:47	1.19	0.74	3310.00	1.00	
VR37 O SMM	17-Nov-2012, 08:48	0.83	0.81	2300.00	1.00	
VR58 MB1 SMM	17-Nov-2012, 08:50	-0.00	33.50	-6.40	1.00	
VR58 MB1SPK SMM	17-Nov-2012, 08:52	1.81	0.54	5040.00	1.00	
VR58 A SMM	17-Nov-2012, 08:53	0.11	0.89	295.00	1.00	
VR58 ADUP SMM	17-Nov-2012, 08:55	0.10	0.57	281.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:56	3.64	0.48	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:58	0.00	9.27	8.18	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR58 ASPK SMM	17-Nov-2012, 09:00	1.07	0.63	2970.00	1.00	
VR58 B SMM	17-Nov-2012, 09:01	0.10	0.59	283.00	1.00	
VR58 C SMM	17-Nov-2012, 09:03	0.11	0.53	309.00	1.00	
VR58 D SMM	17-Nov-2012, 09:05	0.10	0.66	274.00	1.00	
VR58 E SMM	17-Nov-2012, 09:06	0.11	0.48	304.00	1.00	
VR58 F SMM	17-Nov-2012, 09:08	0.41	0.62	1150.00	1.00	
VR58 G SMM	17-Nov-2012, 09:10	0.06	0.39	175.00	1.00	
VR58 H SMM	17-Nov-2012, 09:11	0.06	0.63	161.00	1.00	
VR58 I SMM	17-Nov-2012, 09:13	0.10	1.03	271.00	1.00	
VR58 J SMM	17-Nov-2012, 09:14	0.05	1.41	126.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:16	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:18	-0.00	300.00	-1.14	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR82 A SMM	17-Nov-2012, 09:19	0.22	0.73	605.00	1.00	
VR82 B SMM	17-Nov-2012, 09:21	0.10	2.50	265.00	1.00	
VR82 C SMM	17-Nov-2012, 09:23	0.08	1.51	214.00	1.00	
VR82 D SMM	17-Nov-2012, 09:24	0.11	1.66	312.00	1.00	
VR82 E SMM	17-Nov-2012, 09:26	0.15	0.65	428.00	1.00	
VR82 F SMM	17-Nov-2012, 09:28	0.16	0.78	453.00	1.00	
VR82 G SMM	17-Nov-2012, 09:29	0.13	0.84	355.00	1.00	
VR82 H SMM	17-Nov-2012, 09:31	0.12	0.60	343.00	1.00	
VR82 I SMM	17-Nov-2012, 09:32	0.12	0.86	328.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:34	3.56	0.61	9900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:36	0.00	42.80	6.11	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 MB1 SMM	17-Nov-2012, 09:38	-0.00	64.10	-2.94	1.00	
VR30 MB1SPK SMM	17-Nov-2012, 09:39	1.82	0.61	5060.00	1.00	
VR30 A SMM	17-Nov-2012, 09:41	0.92	0.74	2550.00	1.00	
VR30 ADUP SMM	17-Nov-2012, 09:43	0.93	0.60	2590.00	1.00	
VR30 ASPK SMM	17-Nov-2012, 09:44	1.78	0.74	4940.00	1.00	
VR30 B SMM	17-Nov-2012, 09:46	0.58	0.75	1620.00	1.00	
VR30 C SMM	17-Nov-2012, 09:47	0.68	0.60	1890.00	1.00	
VR30 D SMM	17-Nov-2012, 09:49	0.80	0.75	2230.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 09:51:06
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 E SMM	17-Nov-2012, 09:51	0.55	0.51	1540.00	1.00	
VR30 F SMM	17-Nov-2012, 09:52	0.67	0.54	1860.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:54	3.71	0.80	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:56	-0.00	235.00	-1.21	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 G SMM	17-Nov-2012, 09:57	0.82	0.55	2280.00	1.00	
VR30 H SMM	17-Nov-2012, 09:59	0.58	0.47	1610.00	1.00	
VR30 I SMM	17-Nov-2012, 10:00	0.60	1.07	1670.00	1.00	
VR30 J SMM	17-Nov-2012, 10:02	0.53	3.49	1480.00	1.00	
VR30 K SMM	17-Nov-2012, 10:04	0.67	0.52	1870.00	1.00	
VR30 L SMM	17-Nov-2012, 10:05	0.81	0.51	2260.00	1.00	
VR36 MB1 SMM	17-Nov-2012, 10:07	0.00	24.00	6.55	1.00	
VR36 MB1SPK SMM	17-Nov-2012, 10:08	1.89	0.89	5240.00	1.00	
VR36 A SMM	17-Nov-2012, 10:10	0.77	0.47	2130.00	1.00	
VR36 ADUP SMM	17-Nov-2012, 10:12	0.74	0.37	2050.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:13	3.72	0.44	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:15	0.00	103.00	2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 ASPK SMM	17-Nov-2012, 10:17	1.72	0.45	4770.00	1.00	
VR36 B SMM	17-Nov-2012, 10:18	2.59	0.47	7210.00	1.00	
VR36 C SMM	17-Nov-2012, 10:20	1.64	0.64	4540.00	1.00	
VR36 D SMM	17-Nov-2012, 10:22	1.79	0.44	4980.00	1.00	
VR36 E SMM	17-Nov-2012, 10:23	0.37	0.51	1040.00	1.00	
VR36 F SMM	17-Nov-2012, 10:25	0.18	0.87	511.00	1.00	
VR36 G SMM	17-Nov-2012, 10:26	0.13	0.85	371.00	1.00	
VR36 H SMM	17-Nov-2012, 10:28	1.34	0.57	3710.00	1.00	
VR36 I SMM	17-Nov-2012, 10:30	1.20	0.50	3330.00	1.00	
VR36 J SMM	17-Nov-2012, 10:31	1.04	0.35	2890.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:33	3.66	0.32	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:34	-0.00	6.61	-7.46	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 K SMM	17-Nov-2012, 10:36	2.70	0.46	7500.00	1.00	
VR36 L SMM	17-Nov-2012, 10:38	0.27	0.35	752.00	1.00	
VR35 MB1 SMM	17-Nov-2012, 10:39	0.00	17.80	8.76	1.00	
VR35 MB1SPK SMM	17-Nov-2012, 10:41	1.84	0.58	5120.00	1.00	
VR35 A SMM	17-Nov-2012, 10:43	0.34	0.50	941.00	1.00	
VR35 ADUP SMM	17-Nov-2012, 10:44	0.34	0.37	935.00	1.00	
VR35 ASPK SMM	17-Nov-2012, 10:46	1.29	0.57	3580.00	1.00	
VR35 B SMM	17-Nov-2012, 10:48	0.42	0.73	1160.00	1.00	
VR35 C SMM	17-Nov-2012, 10:49	0.07	1.65	193.00	1.00	
VR35 D SMM	17-Nov-2012, 10:51	0.06	0.49	162.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 10:52:53
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:52	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:54	-0.03	5.41	-77.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR35 E SMM	17-Nov-2012, 10:56	0.23	0.62	648.00	1.00	
VR35 F SMM	17-Nov-2012, 10:57	1.55	0.66	4300.00	1.00	
VR35 G SMM	17-Nov-2012, 10:59	1.46	0.62	4060.00	1.00	
VR35 H SMM	17-Nov-2012, 11:01	0.41	0.48	1140.00	1.00	
VR35 I SMM	17-Nov-2012, 11:02	1.17	1.09	3260.00	1.00	
VR35 J SMM	17-Nov-2012, 11:04	0.93	0.51	2590.00	1.00	
VR35 K SMM	17-Nov-2012, 11:06	1.11	0.64	3080.00	1.00	
VR35 L SMM	17-Nov-2012, 11:07	1.31	0.58	3630.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:09	3.55	0.50	9850.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:11	-0.00	33.50	-2.69	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 MB1 SMM	17-Nov-2012, 11:13	0.01	3.64	20.40	1.00	
VR32 MB1SPK SMM	17-Nov-2012, 11:14	1.79	0.83	4960.00	1.00	
VR32 A SMM	17-Nov-2012, 11:16	0.47	0.63	1300.00	1.00	
VR32 ADUP SMM	17-Nov-2012, 11:17	0.44	0.66	1220.00	1.00	
VR32 ASPK SMM	17-Nov-2012, 11:19	1.37	0.54	3810.00	1.00	
VR32 B SMM	17-Nov-2012, 11:21	0.82	0.58	2280.00	1.00	
VR32 C SMM	17-Nov-2012, 11:22	0.31	0.79	871.00	1.00	
VR32 D SMM	17-Nov-2012, 11:24	0.43	0.58	1200.00	1.00	
VR32 E SMM	17-Nov-2012, 11:25	0.50	0.71	1390.00	1.00	
VR32 F SMM	17-Nov-2012, 11:27	0.39	0.77	1080.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:29	3.45	0.56	9570.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:30	-0.00	49.10	-3.41	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 G SMM	17-Nov-2012, 11:32	0.31	0.19	870.00	1.00	
VR32 H SMM	17-Nov-2012, 11:34	0.24	0.61	659.00	1.00	
VR32 I SMM	17-Nov-2012, 11:35	0.25	0.45	692.00	1.00	
VR32 J SMM	17-Nov-2012, 11:37	0.17	0.58	483.00	1.00	
VR32 K SMM	17-Nov-2012, 11:38	0.37	0.81	1020.00	1.00	
VR32 L SMM	17-Nov-2012, 11:40	2.05	0.61	5700.00	1.00	
VR65 MB1 SMM	17-Nov-2012, 11:42	0.03	1.01	82.40	1.00	
VR65 MB1SPK SMM	17-Nov-2012, 11:43	1.74	0.69	4820.00	1.00	
VR65 A SMM	17-Nov-2012, 11:45	1.22	0.84	3390.00	1.00	
VR65 ADUP SMM	17-Nov-2012, 11:46	1.18	0.77	3290.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:48	3.54	0.50	9830.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:50	0.00	38.40	2.95	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: SMM Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1213 End Time: 1243

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	2992-7	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	5614	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:
HNO_3: I7533 H_2SO_4: I7477 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: TLM Digested 20.0mL Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1247 End Time: 1447

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	2992-8	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	↓	002	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	2992-9	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:
HNO_3: I7533 H_2SO_4: I7477 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SnMM
Analyst: DM
Bath Temp: 95°C
Start Time: 1120
Matrix: Soil
Date: 11-16-12
End Time: 1150

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR35 A	1	—	0.749	50.0	1 | 1B 1	(Y)	
" PDUP	1	—	0.745		1		
" PSPK	1	—	0.749		1		
" B	1	—	0.746		1		
" C	1	—	0.740		1		
" D	1	—	0.728		1		
" E	1	—	0.750		1		
" F	1	—	0.732		1		
" G	1	—	0.729		1		
" H	1	—	0.709		1		
" I	1	—	0.732		1		
" J	1	—	0.750		1		
" K	1	—	0.748		1		
" L	1	—	0.731		1		
" MB1	—	—	—	↓	1	↓	
" MB1SPK	—	—	—	50.0	1	(Y)	
			11-16-12 DM				

Chemical/Reagent ID:

HNO_3: I7033
H_2SO_4: I1677
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: VR35

W

11-19-12

Soil - pH

meter: Orion Model 115

Date: 11/16/2012

Analyst: KE 11:10

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)* 20.3

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	6.96			OK@ 99.4%
VR34 K1	20	20	20.1	5.46			
VR34 K1	20	20	20.2	5.53			
VR35 A1	20	20	20.2	5.11			
VR35 A1 du	20	20	20.2	5.09			pH RPD =0.39%
VR35 B1	20	20	20.2	5.10			
VR35 C1	20	20	20.3	6.07			
VR35 D1	20	20	20.2	5.98			
VR35 E1	20	20	20.1	6.02			
VR35 F1	20	20	20.3	5.18			
VR35 G1	20	20	20.2	5.30			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VR35 H1	20	20	20.8	6.17			
VR35 I 1	20	20	20.2	5.78			
VR35 J 1	20	20	20.3	5.65			
VR35 K1	20	20	20.2	6.15			
VR35 L1	20	20	20.2	5.48			
VR36 A1	20	20	20.2	5.23			
VR36 B1	20	20	20.2	5.12			
VR36 C1	20	20	20.2	5.89			
VR36 D1	20	20	20.2	5.64			
VR36 E1	20	20	20.2	5.69			
pH 7 Buffer			20.8	7.04			OK@ 100.6%
VR36 F1	20	20	20.2	5.82			
VR36 G1	20	20	20.3	5.69			
VR36 H1	20	20	20.2	5.43			
VR36 I 1	20	20	20.2	5.66			
VR36 J 1	20	20	20.2	5.32			
VR36 K1	20	20	20.1	4.89			
VR36 L1	20	20	20.2	5.50			
VR37 A1	20	20	20.1	5.66			
VR37 A1 du	20	20	20.1	5.68			pH RPD =0.35%
VR37 B1	20	20	20.1	5.65			
pH 7 Buffer			20.7	7.03			OK@ 100.4%
VR37 C1	20	20	20.2	5.70			
VR37 D1	20	20	20.2	5.62			
VR37 E1	20	20	20.0	5.43			
VR37 F1	20	20	20.0	5.66			
VR37 G1	20	20	20.0	5.56			
VR37 H1	20	20	20.1	5.76			
VR37 I 1	20	20	20.0	5.59			
VR37 J 1	20	20	21.5	6.02			
VR37 K1	20	20	20.2	5.97			
VR37 L1	20	20	20.2	6.41			
pH 7 Buffer			20.6	7.03			OK@ 100.4%
VR37 M1	20	20	20.1	5.74			
VR37 N1	20	20	20.1	6.12			
VR37 O1	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			OK@ 100.6%

① 11-2/6-12 ②

Soil Conductivity - pH

Date: 11-16-12

meter: Orion Model 115

Analyst: ② 11:10

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)* 20.3

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	6.96			
VR34 K1	20	20	20.1	5.46			
↓ L1			20.2	5.53			
VR35 A1			20.2	5.11			
A1			20.2	5.09			
B1			20.2	5.10			
C1			20.3	~~5.12~~	6.07		
D1			20.2	~~6.09~~	5.98		
E1			20.1	6.02			
F1			20.3	5.18			
↓ G1	↓	↓	20.2	5.30			
pH 7 Buffer			20.4	6.99			
VR35 H1	20	20	20.8	6.17			
I1	↓	↓	20.2	5.78			
J1	10	20	20.3	5.65			
K1	20	20	20.2	~~5.66~~	6.15		
↓ L1			20.2	~~6.15~~	5.48		
VR36 A1			20.2	~~5.48~~	5.23		
B1			20.2	5.12			
C1			20.2	5.89			
D1			20.2	5.64			
↓ E1	↓	↓	20.2	5.69			
pH 7 Buffer			20.8	7.04			
VR36 F1	20	20	20.2	5.82			
G1			20.3	5.69			
H1			20.2	5.43			
I1			20.2	5.66			
J1			20.2	5.32			
K1			20.1	4.89			
↓ L1			20.2	5.50			
VR37 A1			20.1	5.66			
↓ A1			20.1	5.68			
↓ B1	↓	↓	20.1	5.65			
pH 7 Buffer			20.7	7.03			
VR37 C1	20	20	20.2	5.70			
D1	20	20	20.2	5.62			
E1	10	20	20.0	5.43			
F1	20	20	20.0	5.66			
G1	10	20	20.0	5.56			
H1	10	20	20.1	5.76			
I1	20	20	20.0	5.59			
J1	20	20	21.5	6.02			
K1	10	40	20.2	5.97			
↓ L1	10	20	20.2	~~20.0~~	6.41		
pH 7 Buffer			20.6	7.03			

Soil Conductivity - pH Page 2 of 2

meter: Orion Model 115

Date: 11-16-12

Analyst: (W) 11:10

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)* 20.1

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~~			~~11-16-12~~				
VR37 m1	10	20	20.1	5.74			
↓ 10	10	20	20.1	6.12			
↓ 0	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			
pH 7 Buffer							
pH 7 Buffer							
pH 7 Buffer							

11-16-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

① 11-16-12 (W) Page 1 of 3

Calibration

			Buffer	Source	Lot #	pH	Temp.
Date:	11-15-12						
Time:	13:50		2.00	Ricca	1505264	2.00	20.3
Analyst:	(W)		4.00	Fisher	108305	4.00	20.1
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.3
			12.00	Ricca	1206157	12.00	20.2
			Verification	Fisher	120143	7.03	20.1

Sample pH

Analyst initials	Time	Sample ID	1	2	3	4	Temperature
(W)	14:52	ICV	6.96	6.96	Soil pH		20.3
↓	↓	VR34 ~~VR39~~ ① K'	5.45	5.46		↓	20.1
		↓ L'	5.55	5.53			20.2
		VR35 A'	5.11	5.11			20.2
		~~A~~	5.09	5.09			20.2
		B'	5.10	5.10			20.2
		C' ~~B~~ ①	① ~~5.90~~ 6.08	~~5.92~~ 6.07			20.3
		D'	① ~~6.08~~ 5.97	~~6.07~~ ① 5.98			20.2
		E'	6.02	6.02			20.1
		F' ~~G~~ ①	5.18	5.18			20.3
		↓ G' ~~H~~ ①	5.28	5.30			20.2
		CCV	6.99	6.99			20.4
		VR35 ~~X~~ ① H'	6.17	6.17			20.8 ~~20.8~~ ①
		~~H'~~	~~5.78~~	~~5.78~~	11-16-12		~~20.2~~
		I'	~~5.68~~ ②	① ~~5.69~~ 5.78			② ~~20.2~~ 20.2
		J'	5.66	① ~~5.66~~ 5.65			20.3
		K'	6.12	6.15			20.2
		↓ L'	5.50	5.48			20.2
		VR36 A'	5.23	5.23			20.2
		B'	5.12	5.12			20.2
		C'	5.89	5.89			20.2
		D'	5.64	5.64			20.2
↓	↓	↓ ~~CCV~~ E'	5.68	5.69		↓	20.2

② 5.65 11-16-12 (W)

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pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	W		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Cont

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
W	14:52	ICV	7.04	7.04		pH 5.01	20.8
		VR36F 1	5.82	5.82			20.2
		G 1	5.68	5.69			20.3
		H 1	5.43	5.43			20.2
		I 1	5.66	5.66			20.2
		J 1	5.32	5.32			20.2
		K 1	4.89	4.89			20.1
		L 1	5.50	5.50			20.2
		VR37 A 1	5.65	5.66			20.1
		A 1	5.68	5.68			20.1
		B 1	5.64	5.65			20.1
		CCV	7.04	7.03			20.7
		VR37 C 1	5.70	5.70			20.2
		D 1	5.61	5.62			20.2
		E 1	5.43	5.43			20.6
		F 1	5.64	5.66			20.0
		G 1	5.56	5.56			20.0
		H 1	5.75	5.76			20.1
		I 1	5.61	5.59			20.0
		J 1	6.01	6.02			21.5
		K 1	5.97	5.97			20.2
		L 1	6.41	6.41			20.2
		CCV	7.04	7.03			20.6

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	(W)		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher	Cont		
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		ICV					
(W)	14:52	VR37M1	5.74	5.74	pH/Sil		20.1
↓	↓	N1	6.11	6.12			20.1
		D1	6.08	6.08			20.2
		CCV	7.04	7.04			20.7
		CCV					

W
11-23-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 11/15/2012

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

ANALYST: CDE 17:52

Instrumentation

Drying Ovens: 12

Muffle Furnace: NA

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/15/2012 17:52 date/time in oven KE

11/16/2012 12:08 date/time out CDE

elapsed hrs = 18.3

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		11/15/12 17:30	11/14/12 13:37	11/16/12 12:26										
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	1.0882	1.0884			0.00							
VR35 A1		6.3793	1.0883	6.3566			5.27	99.6%						
VR35 A1 dup		6.6358	1.0939	6.6128			5.52	99.6%						
							RPD =	0.01%				RPD =	NA	
VR35 A1 trp		6.6491	1.1166	6.6198			5.50	99.5%						
							RSD =	0.06%				RSD =	NA	
VR35 B1		6.5185	1.0963	6.4909			5.39	99.5%						
VR35 C1		6.3004	1.0781	6.2568			5.18	99.2%						
VR35 D1		6.1930	1.0796	6.1823			5.10	99.8%						
VR35 E1		6.2841	1.0914	6.2696			5.18	99.7%						
VR35 F1		6.1856	1.0913	6.1228			5.03	98.8%						
VR35 G1		6.1639	1.0799	6.0448			4.96	97.7%						
VR35 H1		6.0970	1.1246	6.0470			4.92	99.0%						
VR35 I 1		6.6795	1.1010	6.5414			5.44	97.5%						
VR35 J1		6.0206	1.0527	5.9183			4.87	97.9%						
VR35 K1		6.4065	1.0972	6.3375			5.24	98.7%						
VR35 L1		6.6165	1.0728	6.5384			5.47	98.6%						
VR36 A1		6.1180	1.0609	6.0852			5.02	99.4%						
VR36 B1		6.7607	1.1132	6.5759			5.46	96.7%						
VR36 C1		6.1151	1.1379	6.0293			4.89	98.3%						
VR36 D1		6.1887	1.1340	6.0879			4.95	98.0%						
VR36 E1		6.7451	1.0693	6.6841			5.61	98.9%						
VR36 F1		6.8354	1.0923	6.7986			5.71	99.4%						
VR36 G1		6.8083	1.1232	6.7799			5.66	99.5%						
VR36 H1		6.1549	1.1096	6.0068			4.90	97.1%						

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: (W) / CDL	Date: 11-15-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 17:52	Time Out of Oven: 11-16-12 12:08	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:	11-15-12 17:30	11-16-12 13:37	11-16-12 12:26						
Cal Weight (10.0000):	10.0000 (W)	10.0000 (W)	10.0000 CDL						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	24	Ø	1.0982	1.0984						
VA35 A1	25	6.3293	1.0983	6.3566						
A1	26	6.6358	1.0939	6.6128						
A1	27	6.6491	1.1166	6.6198						
B1	28	6.5185	1.0963	6.4909						
C1	29	6.2004	1.0781	6.2568						
D1	30	6.1930	1.0796	6.1823						
E1	31	6.2841	1.0914	6.2696						
F1	32	6.1856	1.0913	6.1228						
G1	33	6.1639	1.0799	6.0448						
H1	34	6.0970	1.1246	6.0470						
I1	35	6.6795	1.1010	6.5414						
J1	36	6.0206	1.0527	5.9183						
K1	37	6.4065	1.0972	6.3375						
L1	38	6.6165	1.0728	6.5384						
VA36 A1	39	6.1180	1.0609	6.0852						
B1	40	6.7607	1.1132	6.5759						
C1	41	6.1151	1.1379	6.0293						
D1	42	6.1887	~~1.1~~ 1.0	6.0879						
E1	43	6.7451	1.0693	6.6841						
F1	44	6.8354	1.0923	6.7986						
G1	45	6.8083	1.1232	6.7799						
H1	46	6.1545	1.1096	6.0068						

1.1340 CDL

W
11-27-12

TOC Solids Prep Log

DATE: 11/15/2012

acid purging to remove IC and drying at 70°C for TOC analysis

ANALYST: KE / UW 18:38

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			13.0715		13.0718	0.3 mg	
VR35 A1		-	13.1570	19.1541	19.3428	103.15%	
VR35 A1 dup		-	13.0686	19.3260	19.4371	101.78%	RPD = 1.34%
VR35 A1 trip		-	13.1843	19.4398	19.6584	103.49%	RSD = 0.88%
VR35 B1		-	13.2006	18.5196	18.6480	102.41%	
VR35 C1		-	13.1114	18.9448	19.0892	102.48%	
VR35 D1		-	13.2180	18.3883	18.5414	102.96%	
VR35 E1		-	13.1611	18.9645	19.1422	103.06%	
VR35 F1		-	13.1968	18.2763	18.3756	101.95%	
VR35 G1		-	13.0888	18.3254	18.4549	102.47%	
VR35 H1		-	13.0571	18.4519	18.6881	104.38%	
VR35 I 1		-	13.1469	18.3779	18.5489	103.27%	
VR35 J 1		+-	13.1424	18.6518	19.2819	111.44%	
VR35 K1		-	13.1039	18.7463	18.9163	103.01%	
VR35 L1		-	13.1270	18.4569	18.8848	108.03%	
VR36 A1		-	13.0908	18.2376	18.3509	102.20%	
VR36 B1		-	13.1169	18.2494	18.4413	103.74%	
VR36 C1		-	13.1253	18.6510	18.8063	102.81%	
VR36 D1		-	13.0899	18.3174	18.4313	102.18%	
VR36 E1		-	13.1435	18.8282	19.5280	112.31%	
VR36 F1		-	13.2003	18.3986	18.6426	104.69%	
VR36 G1		-	13.2161	18.8116	19.0860	104.90%	
VR36 H1		-	13.1748	18.7001	18.8466	102.65%	

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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 (W) /uw* 18:38 Date 11-15-12

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.0715	Ø	13.0718		
VR35 A1		-	13.1570	19.1541	19.3428		
A1		-	13.0686	19.2360	19.4371		
A1		-	13.1843	19.4398	19.6584		
B1		-	13.2086	18.5196	18.6480		
C1		-	13.1114	18.9448	19.0892		
D1		-	13.2180	18.3883	18.5414		
E1		-	13.1611	18.9645	19.1422		
F1		-	13.1968	18.2763	18.3756		
G1		-	13.0888	18.3254	18.4549		
H1		-	13.0571	18.4519	18.6881		
I1		-	13.1469	18.3779	~~19.1002~~	18.5489	x
J1		+-	13.1424	18.6518	19.2819	x	
K1		-	13.1039	18.7463	18.9163		
L1		-	13.1270	18.4569	18.8848		
VR36 A1		-	13.0908	18.2376	18.3509		
B1		-	13.1169	18.2494	18.4413		
C1		-	13.1253	18.6510	18.9063		
D1		-	13.0899	18.3174	18.4313		
E1		-	13.1435	18.8282	19.5280	x	
F1		-	13.2003	18.3986	18.6426		
G1		-	13.2161	18.8116	19.0860		
H1		-	13.1748	18.7001	18.8466		
				11-15-12			
				(W)			

TOC, Solids Data Analysis

DATE: 11/26/2012

Instrument: Apollo 1 — ANALYST: KE 7:38

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
34.5	63.8	40.6	87.1	60.2		70.3	20.7%	*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	961	961	*96.10%*
Blank				1.00		40.0	-10.48	-10	*Blank OK*
NIST 1941B				1.00		1.6	30599	30,599	*102.34%*
Silica Blanks 1				1.00		35.0	35.5	36	*Low Scale*
Silica Blanks 2				1.00		36.5	63.77	64	*Low Scale*
Silica Blanks 3				1.00		37.3	40.61	41	*Low Scale*
Silica Blanks 4				1.00		33.0	87.07	87	*Low Scale*
Silica Blanks 5				1.00		34.1	60.19	60	*Low Scale*
VR33 A1				1.00		0.8	83382	83,382	*Range OK!*
VR33 B1				1.00		0.9	38023	38,023	*Range OK!*
VR33 C1	11.0	108.5	89.86%	9.86		1.7	14786	145,220	*Range OK!*
VR33 D1				1.00		0.9	62645	62,645	*Range OK!*
CCV				1.00		40.0	1036	1,036	*103.60%*
Blank				1.00		40.0	-22.12	-22	*Blank OK*
VR33 E1	11.5	113.6	89.88%	9.88		1.3	7641	74,855	*Range OK!*
VR33 E1 dup	11.0	109.2	89.93%	9.93		1.2	8134	80,120	*RPD=6.8%*
VR33 E1 trp	11.7	116.4	89.95%	9.95		1.4	7791	76,881	*RSD=3.4%*
VR33 E1 ms	11.5	113.6	89.88%	9.88	20	1.4	44197	435,965	*Range OK!*
Spike =	*0.05*	*mg C to*	*0.1*	*mg samp=*	*352,795*	*ppm*		*102%*	

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
VR33 F1	16.1	160.0	89.94%	9.94		2.0	5892	57,925	*Range OK!*
VR33 G1				1.00		1.0	7158	7,158	*Low Scale*
VR33 H1				1.00		1.8	4481	4,481	*Range OK!*
VR33 I 1	11.0	109.2	89.93%	9.93		1.8	8376	82,523	*Range OK!*
VR33 J 1	11.2	111.3	89.94%	9.94		1.5	9257	91,363	*Range OK!*
VR33 K1	11.6	113.8	89.81%	9.81		1.9	11118	108,452	*Range OK!*
CCV				1.00		40.0	1025	1,025	*102.50%*
Blank				1.00		40.0	-22.56	-23	*Blank OK*
VR33 L1	15.2	148.2	89.74%	9.75		2.2	5718	55,135	*Range OK!*
VR34 A1	18.7	176.8	89.42%	9.45		1.7	12349	116,159	*Range OK!*
VR34 B1				1.00		1.0	46969	46,969	*Range OK!*
VR34 C1				1.00		1.0	49462	49,462	*Range OK!*
VR34 D1	12.5	122.2	89.77%	9.78		1.8	10044	97,573	*Range OK!*
VR34 E1				1.00		1.1	31712	31,712	*Range OK!*
VR34 F1				1.00		1.1	43060	43,060	*Range OK!*
VR34 G1				1.00		0.8	52059	52,059	*Range OK!*
VR34 H1				1.00		1.0	50651	50,651	*Range OK!*
VR34 I 1				1.00		0.9	64966	64,966	*Range OK!*
CCV				1.00		40.0	1019	1,019	*101.90%*
Blank				1.00		40.0	-23.78	-24	*Blank OK*
VR34 J 1				1.00		1.1	36845	36,845	*Range OK!*
VR34 K1				1.00		0.9	76844	76,844	*Range OK!*
VR34 L1	11.8	114.1	89.66%	9.67		2.1	4984	47,583	*Range OK!*
VT58 A1				1.00		2.1	1062	1,062	*Low Scale*
VT58 A1 dup				1.00		2.2	1040	1,040	*RPD=2.1%*
VT58 A1 trp				1.00		2.1	1360	1,360	*RSD=15.5%*
VT58 A1 ms				1.00	10	2.0	15771	15,771	*Range OK!*
Spike =	*0.025*	*mg C to*	*2.0*	*mg samp=*	*12,500*	*ppm*		*118%*	
VT58 B1				1.00		3.2	375	375	*Low Scale*
VT58 C1				1.00		4.8	1162	1,162	*Low Scale*
VT58 D1				1.00		5.9	785	785	*Low Scale*
CCV				1.00		40.0	989	989	*98.90%*
Blank				1.00		40.0	-21.47	-21	*Blank OK*
VT56 E1				1.00		4.2	803	803	*Low Scale*
VT58 F1				1.00		6.9	716	716	*Low Scale*
VR35 A1	12.9	128.2	89.94%	9.94		2.6	4462	43,715	*Range OK!*
VR35 A1 dup	12.4	120.8	89.74%	9.74		2.6	3996	38,314	*RPD=13.2%*
VR35 A1 trp	12.4	122.8	89.90%	9.90		2.8	3942	38,412	*RSD=7.7%*
VR35 A1 ms	12.9	128.2	89.94%	9.94	10	2.8	12435	122,950	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*88,732*	*ppm*		*89%*	
VR35 B1				1.00		1.0	33883	33,883	*Range OK!*
VR35 C1				1.00		1.2	7877	7,877	*Range OK!*
VR35 D1				1.00		2.9	3469	3,469	*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*
VR35 E1				1.00		0.9	24750	24,750	*Range OK!*
CCV				1.00		40.0	920	920	*92.00%*
Blank				1.00		40.0	-27.16	-27	*Blank OK*
VR35 F1	24.7	246.4	89.98%	9.98		1.6	10945	108,553	*Range OK!*
VR35 G1				1.00		1.0	75451	75,451	*Range OK!*
VR35 H1				1.00		0.8	91579	91,579	*Range OK!*
VR35 I 1				1.00		1.2	40037	40,037	*Range OK!*
VR35 J 1				1.00		1.0	58289	58,289	*Range OK!*
VR35 K1				1.00		1.1	27493	27,493	*Range OK!*
VR35 L1	13.2	128.7	89.74%	9.75		2.0	8316	80,465	*Range OK!*
NIST 1941B				1.00		1.9	29563	29,563	*98.87%*
CCV				1.00		40.0	1020	1,020	*102.00%*
Blank				1.00		40.0	-25.28	-25	*Blank OK*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(1) 11-28-12 (initials)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 3

Set-Up Parameters MODE:	NPOC		INLET:	Boat Sampler
Standards:	Source	Conc (ppm)	Analyst:	(initials)
Calibration:	ARI - 00128-03	5000	Date:	11-28-12
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:38
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			1.6			
SB 1			35.0			
2			35.5			
3			37.3	Silica	Blk #5	= 34.1
4			33.0			
VR33 A'			0.8		11-26-12	
B'			0.9			
C'	11.0	108.5	1.7			
D'			0.9			
CCV			40			
CCB			40			
VR33 E'	11.5	113.6	1.3			
DP E'	11.0	109.2	1.2			
TP E'	11.7	116.4	1.4			
MS E'	11.5	113.0	1.4	2500	20	
F'	16.1	160.0	2.0			
G'			1.0			
H'			1.8			
I'	11.0	109.2	1.8			
J'	11.2	111.3	1.5			
K'	11.6	113.8	1.9			
CCV			40			
CCB			40			
VR33 L'	15.2	148.2	2.2			
VR34 A'	18.7	176.8	1.7			
B'			1.0			
C'			1.0			
D'	12.6	122.2	1.8			
E'			1.1			
F'			1.1			

Analytical Resources, Incorporated
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(1) 11-26-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Page 2 of 3

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI - 00128-03	5000	Date:	11-26-12
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:38
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:				

Sample ID	Dilution Data (mg) Sample	Dilution Data (mg) + Silica Gel	Burn Wt mg	Matrix Spike Data mg/L	Matrix Spike Data µL added	Comments
VR34 G'			0.8			
H'			1.0			
I'			0.9			
~~J~~	CCV		40			
CCV ~~K~~ (1)	CCB		40			
VR34 ~~CCB~~ J' (1)	~~K~~ J'		(1) ~~40~~ ~~1.2~~ (1) 1.1			
VR34 K'			0.9			
L'	11.8	114.1	2.1			
VT58 A'			2.1			
DP A'			2.2			
TP A'			(1) ~~2.2~~ 2.1			
MS A'			2.0	2500	10	
B'			3.2			
C'			4.8			
D'			5.9			
CCV			40			
CCB			40			
VT58 E'			4.2			
F'	~~70~~ (1)		6.9			
VR35 A'	12.9	128.2	2.6			
DP A'	12.4	120.8	2.6			
TP A'	12.4	122.8	2.8			
MS A'	12.9	128.2	2.8	2500	10	
B'			1.0			
C'			1.2			
D'			2.9			
E'	~~24.7~~ (1)	~~246.4~~ (1)	0.9			
CCV			40			
CCB			40			
VR35 F'	24.7	246.4	1.6			
G'			1.0			
H'			0.8			

(P) 11-26-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler		
Standards:	Source		Conc (ppm)		Analyst:	(P)
Calibration:	ARI - 00128-03		5000		Date:	11-26-12
Verification:	ERA - 0409-12-01		5000 to 1000 for CVS		Time:	1:38
SRM:	NBS - (1941b) or 8704		Method: PSEP 1986-MOD		Balance ID	B1464541 45
Sample Sequence:						

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
UR35 I'			1.2			
J'			1.0			
K'			1.1			
↓ L	13.2	128.7	2.0			
NBS1941 B			1.9			
CCV			40			
CCB			40			

11-26-12 (W)

11-26-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/26 17:26:20

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11260746
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 07:50
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	960.5615	38.4225	5307964	6.610	7.606	152

Last Message: Out of Calibration

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11260758
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:00
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-10.4847	-0.4194	107150	6.897	7.891	53

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11260804
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:09
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30598.6211	48.9578	6718615	6.713	7.710	208

Sample ID: Silica Blank 1 Mode: TOC
Method: Boat Sampler Filename: 11260818
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:22
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34.5058	1.2077	161708	6.718	7.713	58

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 11260829
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:31
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	63.7652	2.2637	303098	6.585	7.584	64

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 11260836
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:38
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	41.6128	1.5438	206715	6.528	7.525	61

Sample ID: Silica Blank 4 Mode: TOC
Method: Boat Sampler Filename: 11260844
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 08:46
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	87.0669	2.8732	384714	6.617	7.612	66

Sample ID: Silica Blank 5
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11260854
Timestamp: 2012/11/26 08:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	60.1851	2.0523	274799	6.743	7.742	64

Sample ID: VR33 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11260918
Timestamp: 2012/11/26 09:22
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	83382.0312	66.7056	8931693	6.826	7.825	172

Sample ID: VR33 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11260929
Timestamp: 2012/11/26 09:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	38022.6562	34.2204	4582013	6.937	7.934	144

Sample ID: VR33 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11260937
Timestamp: 2012/11/26 09:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14786.3125	25.1367	3365737	7.043	8.043	126

Sample ID: VR33 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11260955
Timestamp: 2012/11/26 09:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	62644.7266	56.3803	7549156	7.274	8.273	153

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261002
Timestamp: 2012/11/26 10:07
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1035.7686	41.4307	5710764	7.079	8.077	158

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261009
Timestamp: 2012/11/26 10:12
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-22.1213	-0.8849	44826	7.268	7.245	120

Last Message: Low Sample Detected

Sample ID: VR33 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11261016
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:18
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7641.4258	9.9339	1330115	7.209	8.208	96

Sample ID: VR33 E1 prp | Mode: TOC
Method: Boat Sampler | Filename: 11261020
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:22
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8133.7959	9.7606	1306911	7.357	8.353	96

Sample ID: VR33 E1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11261025
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:36
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7790.5786	10.9068	1460391	7.239	8.238	104

Sample ID: VR33 E1 MS | Mode: TOC
Method: Boat Sampler | Filename: 11261044
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	44197.3633	61.8763	8285062	7.437	8.435	158

Sample ID: VR33 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11261055
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 10:58
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5891.9614	11.7839	1577834	7.414	8.413	99

Sample ID: VR33 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11261109
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 11:12
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7158.3057	7.1583	958477	7.397	8.395	102

Sample ID: VR33 H1 | Mode: TOC
Method: Boat Sampler | Filename: 11261118
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/26 11:21
Operator ID: TRINA | Sample Type: Sample

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

1	4480.9922	8.0658	1079986	7.472	8.471	104

Sample ID: VR33 I 1 Mode: TOC
Method: Boat Sampler Filename: 11261124
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 11:27
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8375.8350	15.0765	2018701	7.467	8.465	107

Sample ID: VR33 J1 Mode: TOC
Method: Boat Sampler Filename: 11261130
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 11:33
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9256.8750	13.8853	1859204	7.506	8.502	107

Sample ID: VR33 K1 Mode: TOC
Method: Boat Sampler Filename: 11261137
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 11:40
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11118.3691	21.1249	2828564	7.498	8.493	117

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11261143
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 11:47
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1025.3511	41.0140	5654969	7.422	8.422	143

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11261149
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 11:52
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-22.5553	-0.9022	42502	7.443	7.367	120

Last Message: Low Sample Detected

Sample ID: VR33 L1 Mode: TOC
Method: Boat Sampler Filename: 11261156
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 11:59
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5717.8213	12.5792	1684320	7.404	8.402	105

Sample ID: VR3A A1 Mode: TOC
Method: Boat Sampler Filename: 11261202
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:05
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	12349.1611	20.9936	2810980	7.308	8.307	117

Sample ID: VR3A B1 Mode: TOC
Method: Boat Sampler Filename: 11261209
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:12
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46968.6367	46.9686	6288967	7.162	8.160	161

Sample ID: VR3A C1 Mode: TOC
Method: Boat Sampler Filename: 11261217
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:20
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49462.2617	49.4623	6622856	7.155	8.154	155

Sample ID: VR3A D1 Mode: TOC
Method: Boat Sampler Filename: 11261224
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:27
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10044.2158	18.0796	2420806	7.204	8.204	111

Sample ID: VR3A E1 Mode: TOC
Method: Boat Sampler Filename: 11261230
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:34
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31712.4219	34.8837	4670823	7.130	8.129	156

Sample ID: VR3A F1 Mode: TOC
Method: Boat Sampler Filename: 11261236
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:40
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	43060.3828	47.3664	6342229	7.151	8.150	152

Sample ID: VR3A G1 Mode: TOC
Method: Boat Sampler Filename: 11261243
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:47
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	52058.9414	41.6472	5576435	7.061	8.060	153

Sample ID: VR3A H1 Mode: TOC
Method: Boat Sampler Filename: 11261249
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 12:56
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	50651.0547	50.6511	6782032	7.110	8.106	152

Sample ID: VR3A J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261258
Timestamp: 2012/11/26 13:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	64966.3359	58.4697	7828927	7.152	8.151	172

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261310
Timestamp: 2012/11/26 13:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1019.4501	40.7780	5623364	6.919	7.917	148

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261318
Timestamp: 2012/11/26 13:21
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-23.7771	-0.9511	35958	6.936	6.860	120

Last Message: Low Sample Detected

Sample ID: VR34 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261325
Timestamp: 2012/11/26 13:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36844.9531	40.5294	5426778	6.946	7.946	155

Sample ID: VR34 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261332
Timestamp: 2012/11/26 13:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	76843.6016	69.1592	9260226	6.780	7.776	168

Sample ID: VR34 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261338
Timestamp: 2012/11/26 13:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4983.6714	10.4657	1401329	6.854	7.846	102

Sample ID: VT58 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261343
Timestamp: 2012/11/26 13:45
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	1062.2076	2.2306	298676	6.753	7.746	60

Sample ID: VT58 A1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261352
Timestamp: 2012/11/26 13:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1040.1276	2.2883	306394	6.668	7.664	61

Sample ID: VT58 A1 MP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261359
Timestamp: 2012/11/26 14:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1359.5405	2.8550	382281	6.606	7.604	67

Sample ID: VT58 A1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261403
Timestamp: 2012/11/26 14:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15771.2393	31.5425	4223448	6.793	7.791	128

Sample ID: VT58 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261439
Timestamp: 2012/11/26 14:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	375.1033	1.2003	160721	6.663	7.658	61

Sample ID: VT58 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261445
Timestamp: 2012/11/26 14:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1161.6237	5.5758	746583	6.625	7.624	75

Sample ID: VT58 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261450
Timestamp: 2012/11/26 14:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	784.6025	4.6292	619831	6.601	7.599	70

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261456
Timestamp: 2012/11/26 14:59
Sample Type: Cal. Verification

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	989.3541	39.5742	5462173	6.558	7.557	141

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261501
Timestamp: 2012/11/26 15:03
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.4663	-0.8587	48334	6.595	7.587	41

Sample ID: VT56 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261505
Timestamp: 2012/11/26 15:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	802.9234	3.3723	451538	6.521	7.516	62

Sample ID: VT56 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261509
Timestamp: 2012/11/26 15:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	715.7490	4.9387	661274	6.586	7.577	70

Sample ID: VR35 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261514
Timestamp: 2012/11/26 15:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4462.2505	11.6019	1553455	6.491	7.490	102

Sample ID: VR35 A1 DF
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261518
Timestamp: 2012/11/26 15:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3995.5652	10.3885	1390987	6.454	7.451	104

Sample ID: VR35 A1 TRIP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261524
Timestamp: 2012/11/26 15:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3941.9822	11.0376	1477897	6.389	7.385	100

Sample ID: VR35 A1 ~~TRIP~~ WW
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261532
Timestamp: 2012/11/26 15:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12435.0283	34.8181	4662042	6.366	7.364	133

Sample ID: VR35 B1 Mode: TOC
Method: Boat Sampler Filename: 11261538
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 15:42
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33882.9062	33.8829	4536825	6.279	7.279	148

Sample ID: VR35 C1 Mode: TOC
Method: Boat Sampler Filename: 11261546
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 15:48
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7877.3901	9.4529	1265712	6.275	7.268	117

Sample ID: VR35 D1 Mode: TOC
Method: Boat Sampler Filename: 11261551
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 15:54
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3469.3005	10.0610	1347135	6.374	7.372	131

Sample ID: VR35 E1 Mode: TOC
Method: Boat Sampler Filename: 11261557
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:00
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24750.2734	22.2752	2982592	6.453	7.451	148

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11261613
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:17
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	919.6147	36.7846	5088657	6.715	7.715	144

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11261620
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:22
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.1645	-1.0866	17816	6.581	6.661	120

Last Message: Low Sample Detected

Sample ID: VR35 F1 Mode: TOC
Method: Boat Sampler Filename: 11261626
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/26 16:29
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	10944.6387	17.5114	2344730	6.674	7.671	114

Sample ID: VR35 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261634
Timestamp: 2012/11/26 16:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75451.0000	75.4510	10102674	6.545	7.544	176

Sample ID: VR35 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261640
Timestamp: 2012/11/26 16:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	91578.8125	73.2630	9809714	6.707	7.705	166

Sample ID: VR35 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261646
Timestamp: 2012/11/26 16:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	40036.6758	48.0440	6432956	6.647	7.645	152

Sample ID: VR35 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261654
Timestamp: 2012/11/26 16:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	58288.9883	58.2890	7804730	6.474	7.470	225

Sample ID: VR35 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261659
Timestamp: 2012/11/26 17:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27492.5254	30.2418	4049288	6.535	7.533	158

Sample ID: VR35 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261704
Timestamp: 2012/11/26 17:08
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8315.7402	16.6315	2226908	6.493	7.488	113

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11261710
Timestamp: 2012/11/26 17:15
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29562.7461	56.1692	7684204	6.520	7.518	233

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11261716
Timestamp: 2012/11/26 17:20
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1019.6380	40.7855	5624370	6.558	7.556	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11261721
Timestamp: 2012/11/26 17:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.2847	-1.0114	27884	6.671	6.607	120

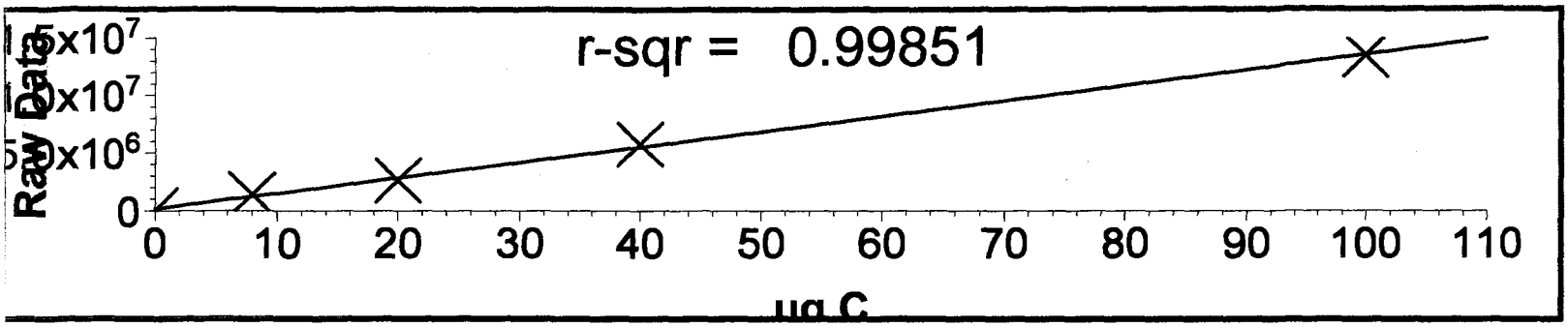
Last Message: Low Sample Detected

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
0x10^7
5x10^6
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 VR36, VR37

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

AV
Signature

November-28-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 28, 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. VR36 and VR37

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 VR36 and VR37

KFB/eb

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

Chain of Custody Documentation

ARI Job ID: VR36, VR37

VRB6 7 of 9

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

SAMPLED BY: PRG, SMF, WDM, KJH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: *METALS	TOC	pH (EPA 9045)	Total Solids (SM 2540B)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA7-4C		11/3/12	1505	SOIL	X	X	X	X	1	
	SA7-5C			1317						1	
	SA7-6C			1352						1	
	SA7-6P-1 (0 to 3" depth)			1402						1	
	SA7-6P-2 (3 to 6" depth)			1407						1	
	SA7-6P-3 (6 to 12" depth)			1412						1	
	SA7-6P-4 (12 to 24" depth)			1417						1	
	SA7-Field Duplicate			1337						1	
	SA8-1C		11/4/12	1155						1	
	SA8-2C			0927						1	
	SA8-2P-1 (0 to 3" depth)			1001						1	
	SA8-2P-2 (3 to 6" depth)			1006						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE Suzanne Faubl	11/7/12	SIGNATURE	11-7-12
PRINT NAME Suzanne Faubl	TIME	PRINT NAME Chris Ahrens	TIME
COMPANY Hart Crowser	0800	COMPANY ARI	1130
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
* METALS - Ag, Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Mg, Mn, Ni, Pb, K, Na, Sb, Se, Ti, V, Zn, (METHOD 6010B/6020)
Hg By EPA 7471A

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 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: VR36

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)	2.9 4.7 5.1 3.8	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90877952

Cooler Accepted by: CA Date: 11-07-12 Time: 1130

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: _____

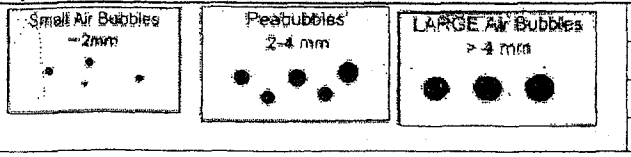
Samples Logged by: JM Date: 11/7/12 Time: 1337

*** 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"	

VR37 8069

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

SAMPLED BY: PAC, SMF, WOM, KJH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: Metals*	TOC	pH (EPA 9045)	Total Solids (SM 2540G)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SAB-2P-3	(6 to 12" depth)	11/4/12	1011	SOIL	X	X	X	X	1	
	SAB-2P-4	(12 to 24" depth)		1016						1	
	SAB-3C		11/3/12	1657						1	
	SAB-4C		11/4/12	1335						1	
	SAB-5C			0901						1	
	SAB-6C			1225						1	
	SAB-7C			1149						1	
	SAB-8C			1005						1	
	SAB-Field Duplicate		11/3/12	1713						1	
	SA10-3C		11/5/12	1335						1	
	SA10-4C			1248						1	
	SA10-5C			1310						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE Suzanne Faubl	11/7/12	SIGNATURE Chris Atwell	11/7/12
PRINT NAME Suzanne Faubl	TIME	PRINT NAME ARI	TIME
COMPANY Hart Crowser	0800	COMPANY	1130
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
*Metals - Ag, Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Mg, Mn, Ni, Pb, K, Na, Sb, Se, Tl, V, Zn (Method 6010B/6020) Hg by EPA 7471A

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:

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

See Lab Work Order No. for Other Contract Requirements

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

VR37 9 of 9

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

SAMPLED BY: PRC, SMF, WDM, KJH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: Metals*	TOC	pH (EPA 9045)	Total solids (SM 2540B)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA10-6C		11/5/12	1352	SOIL	X	X	X	X	1	
	SA10-7C		↓	1515	↓	↓	↓	↓	↓	1	
	SA10-Field Duplicate		↓	1406	↓	↓	↓	↓	↓	1	
										3	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE Suzanne Frank	11/7/12	SIGNATURE	11/07/12
PRINT NAME Suzanne Frank	TIME	PRINT NAME Chris Atwell	TIME
COMPANY Hart Crowser	0800	COMPANY ARI	1130
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* Metals – Ag, Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Mg, Mn, Ni, Pb, K, Na, Sb, Se, Ti, V, Zn (Method 6010B/6020)
Hg by EPA 7471A

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 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: VR37

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)	2.9 4.7 5.1 3.8	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90577952

Cooler Accepted by: CA Date: 11-07-12 Time: 1130

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: _____

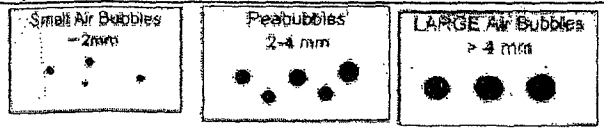
Samples Logged by: JM Date: 11/7/12 Time: 1340

*** 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: VR36, VR37

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VR36 and VR37
November 28, 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 twenty seven soil samples in good condition on November 7, 2012. The samples were received with cooler temperatures between 2.9 and 5.1°C. Please see the Cooler Receipt Form for further details.

Total Metals by 200.8, 6010C and 7471A

The samples were digested on 11/15/12 and analyzed between 11/16/12 and 11/20/12 within the method recommended holding time.

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

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

Samples: No anomalies were encountered for these samples.

Method Blank(s): The method blank in association with VR36 contained manganese. All associated samples contained greater then times the level found in the method blank therefore no further corrective action was taken.

LCS: Is in control.

Matrix spike/Sample Duplicate/RPD: The matrix spike is out of control low for antimony in association with sample SA7-4C with an RPD for antimony outside of the +/-20% control limits.

The matrix spike is out of control low for antimony in association with sample SA8-2P-3(6 to 12 depth).

Conventional Chemistry Parameters

The samples were analyzed between 11/15/12 and 11/27/12 within the method recommended holding time.

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 blank was free of contamination.

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

Matrix spike/ Matrix spike duplicate/RPD (s): Are in control.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VR36
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Twelve samples were submitted for preparation on November 7, 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: Qurena Curtis Date: 11/15/12
Title: *Geotechnical Division Manager*

Reviewed by: Robert Noble Date: November 15, 2012
Title: *Lead Technician*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VR37
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Fifteen samples were submitted for preparation on November 7, 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: [signature] Date: November 16, 2012
Technician

Reviewed by: [signature] Date: 11/16/12
Geotechnical Division Manager

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

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VR36
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.	SA7-4C	VR36A	12-22237	Soil	11/03/12 15:05	11/07/12 11:30
2.	SA7-5C	VR36B	12-22238	Soil	11/03/12 13:17	11/07/12 11:30
3.	SA7-6C	VR36C	12-22239	Soil	11/03/12 13:52	11/07/12 11:30
4.	SA7-6P-1(0 to 3" depth)	VR36D	12-22240	Soil	11/03/12 14:02	11/07/12 11:30
5.	SA7-6P-2(3 to 6" depth)	VR36E	12-22241	Soil	11/03/12 14:07	11/07/12 11:30
6.	SA7-6P-3(6 to 12" depth)	VR36F	12-22242	Soil	11/03/12 14:12	11/07/12 11:30
7.	SA7-6P-4(12 to 24" depth	VR36G	12-22243	Soil	11/03/12 14:17	11/07/12 11:30
8.	SA7-Field Duplicate	VR36H	12-22244	Soil	11/03/12 13:37	11/07/12 11:30
9.	SA8-1C	VR36I	12-22245	Soil	11/04/12 11:55	11/07/12 11:30
10.	SA8-2C	VR36J	12-22246	Soil	11/04/12 09:27	11/07/12 11:30
11.	SA8-2P-1(0 to 3"depth)	VR36K	12-22247	Soil	11/04/12 10:01	11/07/12 11:30
12.	SA8-2P-2(3 to 6"depth)	VR36L	12-22248	Soil	11/04/12 10:06	11/07/12 11:30

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VR37
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.	SA8-2P-3(6 to 12"depth)	VR37A	12-22249	Soil	11/04/12 10:11	11/07/12 11:30
2.	SA8-2P-4(12 to 24"depth)	VR37B	12-22250	Soil	11/04/12 10:16	11/07/12 11:30
3.	SA8-3C	VR37C	12-22251	Soil	11/03/12 16:57	11/07/12 11:30
4.	SA8-4C	VR37D	12-22252	Soil	11/04/12 13:35	11/07/12 11:30
5.	SA8-5C	VR37E	12-22253	Soil	11/04/12 09:01	11/07/12 11:30
6.	SA8-6C	VR37F	12-22254	Soil	11/04/12 12:25	11/07/12 11:30
7.	SA8-7C	VR37G	12-22255	Soil	11/04/12 11:49	11/07/12 11:30
8.	SA8-8C	VR37H	12-22256	Soil	11/04/12 10:05	11/07/12 11:30
9.	SA8-Field Duplicate	VR37I	12-22257	Soil	11/03/12 17:13	11/07/12 11:30
10.	SA10-3C	VR37J	12-22258	Soil	11/05/12 13:35	11/07/12 11:30
11.	SA10-4C	VR37K	12-22259	Soil	11/05/12 12:48	11/07/12 11:30
12.	SA10-5C	VR37L	12-22260	Soil	11/05/12 13:10	11/07/12 11:30
13.	SA10-6C	VR37M	12-22261	Soil	11/05/12 13:52	11/07/12 11:30
14.	SA10-7C	VR37N	12-22262	Soil	11/05/12 15:15	11/07/12 11:30
15.	SA10-Field Duplicate	VR37O	12-22263	Soil	11/05/12 14:06	11/07/12 11:30

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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: VR36, VR37

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA7-4C	VR36A	12-22237	
SA7-4CD	VR36ADUP	12-22237	
SA7-4CS	VR36ASPK	12-22237	
SA7-5C	VR36B	12-22238	
PBS	VR36MB1	12-22238	
LCSS	VR36MB1SPK	12-22238	
SA7-6C	VR36C	12-22239	
SA7-6P-1(0 to 3	VR36D	12-22240	
SA7-6P-2(3 to 6	VR36E	12-22241	
SA7-6P-3(6 to 12	VR36F	12-22242	
SA7-6P-4(12 to 24	VR36G	12-22243	
SA7-Field Duplicat	VR36H	12-22244	
SA8-1C	VR36I	12-22245	
SA8-2C	VR36J	12-22246	
SA8-2P-1(0 to 3	VR36K	12-22247	
SA8-2P-2(3 to 6	VR36L	12-22248	

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: 4/29/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA7-4C
SAMPLE

Lab Sample ID: VR36A
LIMS ID: 12-22237
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/16/12	**7429-90-5**	**Aluminum**	8.3	10	**4,600**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.012	0.2	**1.5**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.081	0.2	**10.0**	
3050B	11/15/12	6010C	11/16/12	**7440-39-3**	**Barium**	0.14	0.7	**55.0**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.011	0.09	**4.77**	
3050B	11/15/12	6010C	11/16/12	**7440-70-2**	**Calcium**	4.4	10	**1,630**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.036	0.5	**7.0**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.030	0.2	**2.1**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.034	0.5	**12.7**	
3050B	11/15/12	6010C	11/16/12	**7439-89-6**	**Iron**	1.7	10	**7,620**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.22	0.5	**268**	
3050B	11/15/12	6010C	11/16/12	**7439-95-4**	**Magnesium**	3.2	10	**1,760**	
3050B	11/15/12	6010C	11/16/12	**7439-96-5**	**Manganese**	0.093	0.2	**254**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.055**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.046	0.5	**5.9**	
3050B	11/15/12	6010C	11/16/12	**7440-09-7**	**Potassium**	41	120	**490**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.093	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0075	0.2	**0.2**	
3050B	11/15/12	6010C	11/16/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0028	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.016	0.2	**9.0**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.32	4	**188**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA7-5C
SAMPLE

Lab Sample ID: VR36B
LIMS ID: 12-22238
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 95.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/16/12	**7429-90-5**	**Aluminum**	9.3	10	**17,500**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**3.3**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**35.5**	
3050B	11/15/12	6010C	11/16/12	**7440-39-3**	**Barium**	0.16	0.8	**159**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**9.0**	
3050B	11/15/12	6010C	11/16/12	**7440-70-2**	**Calcium**	4.9	10	**3,330**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**11.3**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**4.3**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**43.5**	
3050B	11/15/12	6010C	11/16/12	**7439-89-6**	**Iron**	2.0	10	**15,800**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.24	0.5	**906**	
3050B	11/15/12	6010C	11/16/12	**7439-95-4**	**Magnesium**	3.6	10	**3,300**	
3050B	11/15/12	6010C	11/16/12	**7439-96-5**	**Manganese**	0.10	0.3	**395**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.192**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.050	0.5	**11.2**	
3050B	11/15/12	6010C	11/16/12	**7440-09-7**	**Potassium**	45	130	**1,040**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.9**	
3050B	11/15/12	6010C	11/16/12	**7440-23-5**	**Sodium**	2.8	130	**180**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.6**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**19.1**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**490**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA7-6C
SAMPLE

Lab Sample ID: VR36C
LIMS ID: 12-22239
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 97.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/16/12	**7429-90-5**	**Aluminum**	8.5	10	**11,000**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.012	0.2	**0.6**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.083	0.2	**15.6**	
3050B	11/15/12	6010C	11/16/12	**7440-39-3**	**Barium**	0.14	0.7	**167**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.011	0.1	**11.1**	
3050B	11/15/12	6010C	11/16/12	**7440-70-2**	**Calcium**	4.5	10	**4,060**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.036	0.5	**12.5**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**4.6**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.034	0.5	**22.0**	
3050B	11/15/12	6010C	11/16/12	**7439-89-6**	**Iron**	1.8	10	**14,100**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.22	0.5	**496**	
3050B	11/15/12	6010C	11/16/12	**7439-95-4**	**Magnesium**	3.3	10	**3,340**	
3050B	11/15/12	6010C	11/16/12	**7439-96-5**	**Manganese**	0.096	0.2	**542**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.113**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.047	0.5	**11.5**	
3050B	11/15/12	6010C	11/16/12	**7440-09-7**	**Potassium**	42	120	**1,400**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0076	0.2	**0.4**	
3050B	11/15/12	6010C	11/16/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.016	0.2	**16.7**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.6	20	**650**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA7-6P-1(0 to 3" depth)
SAMPLE

Lab Sample ID: VR36D
LIMS ID: 12-22240
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 97.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/16/12	**7429-90-5**	**Aluminum**	8.8	10	**9,230**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.1**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.086	0.2	**11.4**	
3050B	11/15/12	6010C	11/16/12	**7440-39-3**	**Barium**	0.15	0.7	**146**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**8.9**	
3050B	11/15/12	6010C	11/16/12	**7440-70-2**	**Calcium**	4.7	10	**3,880**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**12.6**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**4.4**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**25.4**	
3050B	11/15/12	6010C	11/16/12	**7439-89-6**	**Iron**	1.9	10	**12,400**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.23	0.5	**587**	
3050B	11/15/12	6010C	11/16/12	**7439-95-4**	**Magnesium**	3.4	10	**2,930**	
3050B	11/15/12	6010C	11/16/12	**7439-96-5**	**Manganese**	0.099	0.2	**445**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.130**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**11.3**	
3050B	11/15/12	6010C	11/16/12	**7440-09-7**	**Potassium**	43	120	**1,240**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.6**	
3050B	11/15/12	6010C	11/16/12	7440-23-5	Sodium	2.6	120	120	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**17.0**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**570**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA7-6P-2(3 to 6" depth)
SAMPLE

Lab Sample ID: VR36E
LIMS ID: 12-22241
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.5	10	**11,000**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.084	0.2	**15.5**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**146**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.1**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.5	10	**2,420**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**12.7**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**4.2**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**12.9**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**13,700**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.045	0.1	**127**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**3,100**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.095	0.2	**451**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.026**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.047	0.5	**11.4**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**1,360**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0077	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.5	120	**130**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.016	0.2	**17.1**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.33	4	**220**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA7-6P-3(6 to 12" depth)
SAMPLE

Lab Sample ID: VR36F
LIMS ID: 12-22242
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 98.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.7	10	**11,700**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.085	0.2	**5.0**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**104**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.9**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.7	10	**2,130**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**14.1**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**4.5**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**10.4**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**14,800**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.046	0.1	**27.0**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**3,380**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.099	0.2	**323**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.012**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**12.5**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**1,390**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0079	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**120**	
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**17.9**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.33	4	**115**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA7-6P-4(12 to 24" depth)
SAMPLE

Lab Sample ID: VR36G
LIMS ID: 12-22243
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.7	10	**11,400**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.086	0.2	**2.3**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**80.6**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.2**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**2,110**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**13.8**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**4.5**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**11.3**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**14,100**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.046	0.1	**6.3**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**3,310**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.098	0.2	**236**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.009**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**12.8**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**1,340**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0079	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**130**	
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**19.8**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.34	4	**47**	

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: SA7-Field Duplicate
SAMPLE

Lab Sample ID: VR36H
LIMS ID: 12-22244
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 95.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.7	10	**20,200**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.7**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.085	0.2	**24.9**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**167**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**8.1**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**3,360**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**15.1**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**5.8**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**31.7**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**16,300**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.23	0.5	**356**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**3,200**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.098	0.2	**559**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.099**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**14.5**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**1,160**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.5**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**200**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**23.6**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.6	20	**480**	

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: SA8-1C
SAMPLE

Lab Sample ID: VR36I
LIMS ID: 12-22245
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 97.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.0	10	**10,400**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.6**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**20.2**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**192**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**10.8**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**4,010**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.039	0.5	**12.2**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**4.3**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.037	0.5	**20.8**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**13,100**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.24	0.5	**381**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**2,800**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**713**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.085**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.050	0.5	**11.5**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**1,110**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.3**	
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	2.7	130	130	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**15.6**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**560**	

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: SA8-2C
SAMPLE

Lab Sample ID: VR36J
LIMS ID: 12-22246
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 97.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.1	10	**9,990**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.9**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**28.6**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**159**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**8.6**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**2,280**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**9.1**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**3.6**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**24.7**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**10,600**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.24	0.5	**363**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**2,180**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**557**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.072**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**8.9**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**610**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.4**	
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	2.7	130	130	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**15.6**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**330**	

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: SA8-2P-1(0 to 3"depth)
SAMPLE

Lab Sample ID: VR36K
LIMS ID: 12-22247
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 95.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.9	10	**7,580**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**5.1**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.085	0.2	**20.1**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**114**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**10.6**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.7	10	**3,220**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**7.6**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**2.8**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**22.7**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**9,130**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.23	0.5	**668**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**1,960**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**406**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.195**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**7.7**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**490**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.6**	
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	2.7	130	130	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**12.7**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**430**	

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: SA8-2P-2(3 to 6"depth)
SAMPLE

Lab Sample ID: VR36L
LIMS ID: 12-22248
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 98.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.8	10	**10,400**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.083	0.2	**5.9**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**92.1**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.011	0.09	**1.09**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.7	10	**1,910**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.036	0.5	**8.8**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.030	0.2	**3.1**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.034	0.5	**9.6**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**11,100**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.045	0.09	**16.6**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**2,410**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.099	0.2	**355**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.019**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.047	0.5	**9.2**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	43	120	**510**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.094	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0076	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	2.6	120	120	U
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0028	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.016	0.2	**16.5**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.32	4	**128**	

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: SA7-4C
MATRIX SPIKE

Lab Sample ID: VR36A
LIMS ID: 12-22237
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	4,600	4,950	186	188%	H
Antimony	200.8	1.5	5.6	23.3	17.6%	N
Arsenic	200.8	10.0	34.6	23.3	106%	
Barium	6010C	55.0	238	186	98.4%	
Beryllium	200.8	0.2	23.9	23.3	102%	
Cadmium	200.8	4.77	26.8	23.3	94.5%	
Calcium	6010C	1,630	2,540	930	97.8%	
Chromium	200.8	7.0	30.5	23.3	101%	
Cobalt	200.8	2.1	24.9	23.3	97.9%	
Copper	200.8	12.7	36.0	23.3	100%	
Iron	6010C	7,620	8,210	186	317%	H
Lead	200.8	268	287	23.3	81.5%	H
Magnesium	6010C	1,760	2,680	930	98.9%	
Manganese	6010C	254	302	46.5	103%	H
Mercury	7471A	0.055	0.123	0.0714	95.2%	
Nickel	200.8	5.9	29.1	23.3	99.6%	
Potassium	6010C	490	1,370	930	94.6%	
Selenium	200.8	0.5 U	73.3	74.7	98.1%	
Silver	200.8	0.2	19.5	23.3	82.8%	
Sodium	6010C	120 U	920	930	98.9%	
Thallium	200.8	0.2	23.3	23.3	99.1%	
Vanadium	200.8	9.0	33.0	23.3	103%	
Zinc	200.8	188	241	74.7	71.0%	N

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
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Sample ID: SA7-4C
DUPLICATE

Lab Sample ID: VR36A
LIMS ID: 12-22237
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	4,600	4,670	1.5%	+/- 20%	
Antimony	200.8	1.5	1.2	22.2%	+/- 20%	*
Arsenic	200.8	10.0	9.9	1.0%	+/- 20%	
Barium	6010C	55.0	53.6	2.6%	+/- 20%	
Beryllium	200.8	0.2	0.2	0.0%	+/- 0.2	L
Cadmium	200.8	4.77	4.27	11.1%	+/- 20%	
Calcium	6010C	1,630	1,610	1.2%	+/- 20%	
Chromium	200.8	7.0	7.3	4.2%	+/- 20%	
Cobalt	200.8	2.1	2.1	0.0%	+/- 20%	
Copper	200.8	12.7	14.7	14.6%	+/- 20%	
Iron	6010C	7,620	7,950	4.2%	+/- 20%	
Lead	200.8	268	269	0.4%	+/- 20%	
Magnesium	6010C	1,760	1,750	0.6%	+/- 20%	
Manganese	6010C	254	252	0.8%	+/- 20%	
Mercury	7471A	0.055	0.053	3.7%	+/- 20%	
Nickel	200.8	5.9	6.2	5.0%	+/- 20%	
Potassium	6010C	490	490	0.0%	+/- 120	L
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.2	0.2	0.0%	+/- 0.2	L
Sodium	6010C	120 U	120 U	0.0%	+/- 120	L
Thallium	200.8	0.2	0.2	0.0%	+/- 0.2	L
Vanadium	200.8	9.0	9.3	3.3%	+/- 20%	
Zinc	200.8	188	179	4.9%	+/- 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: LAB CONTROL**

Lab Sample ID: VR36LCS
LIMS ID: 12-22238
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-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	197	200	98.5%	
Antimony	200.8	25.3	25.0	101%	
Arsenic	200.8	27.1	25.0	108%	
Barium	6010C	198	200	99.0%	
Beryllium	200.8	25.0	25.0	100%	
Cadmium	200.8	25.4	25.0	102%	
Calcium	6010C	965	1000	96.5%	
Chromium	200.8	26.0	25.0	104%	
Cobalt	200.8	25.6	25.0	102%	
Copper	200.8	26.0	25.0	104%	
Iron	6010C	203	200	102%	
Lead	200.8	27.0	25.0	108%	
Magnesium	6010C	995	1000	99.5%	
Manganese	6010C	50.5	50.0	101%	
Mercury	7471A	0.135	0.143	94.4%	
Nickel	200.8	26.4	25.0	106%	
Potassium	6010C	970	1000	97.0%	
Selenium	200.8	78.9	80.0	98.6%	
Silver	200.8	24.7	25.0	98.8%	
Sodium	6010C	940	1000	94.0%	
Thallium	200.8	26.7	25.0	107%	
Vanadium	200.8	25.0	25.0	100%	
Zinc	200.8	84	80	105%	

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: VR36MB
LIMS ID: 12-22238
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR36-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	11/15/12	6010C	11/16/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/15/12	6010C	11/16/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/15/12	200.8	11/19/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/15/12	6010C	11/16/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/15/12	200.8	11/19/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/15/12	6010C	11/16/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/15/12	200.8	11/19/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/15/12	6010C	11/16/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/15/12	6010C	11/16/12	**7439-96-5**	**Manganese**	0.040	0.1	**0.1**	
CLP	11/15/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/15/12	200.8	11/19/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/15/12	6010C	11/16/12	7440-09-7	Potassium	17	50	50	U
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/15/12	6010C	11/16/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	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: VR36

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP111671	2000.0	1993.69	**99.7**	2000.0	2097.56	**104.9**	2041.11	**102.1**	2092.74	**104.6**	2083.91	**104.2**	2185.74	**109.3**
Antimony	SB	PMS	MS111911	50.0	50.59	**101.2**	50.0	49.90	**99.8**	50.01	**100.0**	50.83	**101.7**	51.09	**102.2**	50.50	**101.0**
Arsenic	AS	PMS	MS111911	50.0	53.30	**106.6**	50.0	49.24	**98.5**	49.25	**98.5**	50.44	**100.9**	50.60	**101.2**	50.16	**100.3**
Barium	BA	ICP	IP111671	1000.0	1018.64	**101.9**	1000.0	1041.05	**104.1**	1040.26	**104.0**	1080.46	**108.0**	1068.00	**106.8**	1118.68	**111.9**
Beryllium	BE	PMS	MS111911	50.0	51.12	**102.2**	50.0	49.29	**98.6**	48.71	**97.4**	49.18	**98.4**	50.15	**100.3**	50.54	**101.1**
Cadmium	CD	PMS	MS111911	50.0	50.82	**101.6**	50.0	50.37	**100.7**	50.61	**101.2**	50.69	**101.4**	50.59	**101.2**	50.74	**101.5**
Calcium	CA	ICP	IP111671	2000.0	1908.96	**95.4**	2000.0	1978.86	**98.9**	1948.46	**97.4**	2125.08	**106.3**	2028.08	**101.4**	2094.76	**104.7**
Chromium	CR	PMS	MS111911	50.0	51.49	**103.0**	50.0	50.49	**101.0**	50.58	**101.2**	49.72	**99.4**	50.40	**100.8**	51.53	**103.1**
Cobalt	CO	PMS	MS111911	50.0	50.78	**101.6**	50.0	50.10	**100.2**	49.70	**99.4**	50.57	**101.1**	49.34	**98.7**	49.55	**99.1**
Copper	CU	PMS	MS111911	50.0	52.43	**104.9**	50.0	49.56	**99.1**	49.32	**98.6**	49.10	**98.2**	50.49	**101.0**	49.77	**99.5**
Iron	FE	ICP	IP111671	2000.0	2000.63	**100.0**	2000.0	2124.56	**106.2**	2043.91	**102.2**	2138.97	**106.9**	2128.52	**106.4**	2212.97	**110.6**
Lead	PB	PMS	MS111911	50.0	51.58	**103.2**	50.0	49.92	**99.8**	49.22	**98.4**	49.54	**99.1**	50.18	**100.4**	49.75	**99.5**
Magnesium	MG	ICP	IP111671	2000.0	1991.52	**99.6**	2000.0	2083.31	**104.2**	2041.91	**102.1**	2105.19	**105.3**	2112.69	**105.6**	2201.40	**110.1**
Manganese	MN	ICP	IP111671	1000.0	983.41	**98.3**	1000.0	987.07	**98.7**	986.80	**98.7**	1060.71	**106.1**	1007.27	**100.7**	1063.89	**106.4**
Mercury	HG	CVA	HG111701	8.0	7.26	**90.8**	4.0	3.69	**92.3**	3.65	**91.3**	1.76	**44.0**	3.63	**90.8**	3.59	**89.8**
Nickel	NI	PMS	MS111911	50.0	52.75	**105.5**	50.0	50.35	**100.7**	49.29	**98.6**	50.48	**101.0**	50.30	**100.6**	50.24	**100.5**
Potassium	K	ICP	IP111671	20000.0	19701.02	**98.5**	20000.0	19744.17	**98.7**	19949.30	**99.7**	20493.51	**102.5**	20090.12	**100.5**	21426.69	**107.1**
Selenium	SE	PMS	MS111911	80.0	80.66	**100.8**	50.0	49.80	**99.6**	48.47	**96.9**	49.75	**99.5**	50.33	**100.7**	50.53	**101.1**
Silver	AG	PMS	MS111911	50.0	51.46	**102.9**	50.0	48.46	**96.9**	47.74	**95.5**	48.96	**97.9**	49.20	**98.4**	49.31	**98.6**
Sodium	NA	ICP	IP111671	50000.0	48621.30	**97.2**	50000.0	48657.79	**97.3**	49021.38	**98.0**	52938.44	**105.9**	49020.90	**98.0**	55265.39	**110.5**
Thallium	TL	PMS	MS111911	50.0	50.95	**101.9**	50.0	49.67	**99.3**	49.49	**99.0**	49.20	**98.4**	49.99	**100.0**	48.90	**97.8**
Vanadium	V	PMS	MS111911	50.0	51.44	**102.9**	50.0	49.50	**99.0**	49.93	**99.9**	49.04	**98.1**	49.83	**99.7**	50.63	**101.3**
Zinc	ZN	PMS	MS111911	50.0	51.46	**102.9**	50.0	50.59	**101.2**	50.23	**100.5**	49.58	**99.2**	50.09	**100.2**	49.92	**99.8**

VR36 : 9999

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: VR36

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP111671	2000.0	1980.55	99.0	2035.55	101.8	2002.34	100.1	1987.45	99.4	2244.71	112.2	2102.98	105.1
Antimony	SB	PMS	MS111911	50.0	50.92	101.8	49.87	99.7	50.14	100.3	50.37	100.7	50.91	101.8		
Arsenic	AS	PMS	MS111911	50.0	49.87	99.7	50.20	100.4	49.20	98.4	48.44	96.9	49.39	98.8		
Barium	BA	ICP	IP111671	1000.0	1018.16	101.8	1037.75	103.8	1022.89	102.3	1020.34	102.0	1130.51	113.1	1057.49	105.7
Beryllium	BE	PMS	MS111911	50.0	51.24	102.5	50.19	100.4	50.21	100.4	50.26	100.5	50.39	100.8		
Cadmium	CD	PMS	MS111911	50.0	50.39	100.8	50.23	100.5	49.55	99.1	50.36	100.7	51.23	102.5		
Calcium	CA	ICP	IP111671	2000.0	1907.62	95.4	1959.62	98.0	1936.46	96.8	2048.24	102.4	2154.74	107.7	2131.88	106.6
Chromium	CR	PMS	MS111911	50.0	49.65	99.3	50.29	100.6	49.72	99.4	49.65	99.3	50.12	100.2		
Cobalt	CO	PMS	MS111911	50.0	48.70	97.4	50.17	100.3	48.34	96.7	49.07	98.1	49.46	98.9		
Copper	CU	PMS	MS111911	50.0	49.56	99.1	50.27	100.5	49.17	98.3	48.50	97.0	47.91	95.8		
Iron	FE	ICP	IP111671	2000.0	2009.14	100.5	2071.54	103.6	2046.63	102.3	2061.01	103.1	2315.18	115.8	2158.58	107.9
Lead	PB	PMS	MS111911	50.0	50.20	100.4	50.48	101.0	49.03	98.1	49.25	98.5	50.10	100.2		
Magnesium	MG	ICP	IP111671	2000.0	1999.38	100.0	2041.66	102.1	2017.65	100.9	2026.59	101.3	2260.38	113.0	2096.46	104.8
Manganese	MN	ICP	IP111671	1000.0	973.42	97.3	999.24	99.9	992.47	99.2	1036.56	103.7	1111.99	111.2	1087.14	108.7
Mercury	HG	CVA	HG111701	4.0	3.60	90.0	3.64	91.0	3.61	90.3	3.56	89.0	3.71	92.8	3.72	93.0
Nickel	NI	PMS	MS111911	50.0	49.89	99.8	50.16	100.3	48.75	97.5	48.51	97.0	49.11	98.2		
Potassium	K	ICP	IP111671	20000.0	19593.93	98.0	19999.47	100.0	19787.78	98.9	20078.23	100.4	22083.81	110.4	21179.23	105.9
Selenium	SE	PMS	MS111911	50.0	50.03	100.1	49.16	98.3	48.18	96.4	47.36	94.7	48.54	97.1		
Silver	AG	PMS	MS111911	50.0	48.92	97.8	47.97	95.9	47.38	94.8	46.71	93.4	46.61	93.2		
Sodium	NA	ICP	IP111671	50000.0	48047.26	96.1	49204.60	98.4	48688.87	97.4	49285.03	98.6	57240.94	114.5	53444.28	106.9
Thallium	TL	PMS	MS111911	50.0	50.17	100.3	50.23	100.5	48.66	97.3	49.27	98.5	49.09	98.2		
Vanadium	V	PMS	MS111911	50.0	49.71	99.4	50.53	101.1	49.58	99.2	48.94	97.9	49.64	99.3		
Zinc	ZN	PMS	MS111911	50.0	49.81	99.6	49.83	99.7	49.82	99.6	48.11	96.2	49.28	98.6		

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: VR36

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Aluminum	AL	ICP	IP111671	2000.0	2025.62	**101.3**	2020.30	**101.0**	1941.89	**97.1**	1845.97	**92.3**				
Antimony	SB	PMS	MS111911	50.0												
Arsenic	AS	PMS	MS111911	50.0												
Barium	BA	ICP	IP111671	1000.0	1017.02	**101.7**	1004.89	**100.5**	973.28	**97.3**	924.01	**92.4**				
Beryllium	BE	PMS	MS111911	50.0												
Cadmium	CD	PMS	MS111911	50.0												
Calcium	CA	ICP	IP111671	2000.0	1944.48	**97.2**	2049.88	**102.5**	1865.64	**93.3**	1768.37	**88.4**				
Chromium	CR	PMS	MS111911	50.0												
Cobalt	CO	PMS	MS111911	50.0												
Copper	CU	PMS	MS111911	50.0												
Iron	FE	ICP	IP111671	2000.0	2089.18	**104.5**	2110.67	**105.5**	2024.74	**101.2**	1929.13	**96.5**				
Lead	PB	PMS	MS111911	50.0												
Magnesium	MG	ICP	IP111671	2000.0	2024.98	**101.2**	2015.84	**100.8**	1950.80	**97.5**	1856.76	**92.8**				
Manganese	MN	ICP	IP111671	1000.0	1005.91	**100.6**	1028.80	**102.9**	971.40	**97.1**	918.87	**91.9**				
Mercury	HG	CVA	HG111701	4.0	3.66	**91.5**	3.61	**90.3**								
Nickel	NI	PMS	MS111911	50.0												
Potassium	K	ICP	IP111671	20000.0	19956.13	**99.8**	19711.86	**98.6**	19145.40	**95.7**	18085.47	**90.4**				
Selenium	SE	PMS	MS111911	50.0												
Silver	AG	PMS	MS111911	50.0												
Sodium	NA	ICP	IP111671	50000.0	48978.47	**98.0**	48093.20	**96.2**	46867.34	**93.7**	44309.21	**88.6**				
Thallium	TL	PMS	MS111911	50.0												
Vanadium	V	PMS	MS111911	50.0												
Zinc	ZN	PMS	MS111911	50.0												

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP111971	2000.0	2029.72	**101.5**	2000.0	2006.35	**100.3**	1980.16	**99.0**	1980.99	**99.0**	1958.39	**97.9**	1953.91	**97.7**
Barium	BA	ICP	IP111971	1000.0	1020.70	**102.1**	1000.0	1006.35	**100.6**	1000.73	**100.1**	989.79	**99.0**	965.81	**96.6**	968.28	**96.8**
Calcium	CA	ICP	IP111971	2000.0	1944.24	**97.2**	2000.0	2038.09	**101.9**	2019.70	**101.0**	2067.44	**103.4**	1994.66	**99.7**	1995.68	**99.8**
Iron	FE	ICP	IP111971	2000.0	2055.51	**102.8**	2000.0	2061.92	**103.1**	2036.61	**101.8**	2069.18	**103.5**	2057.67	**102.9**	2037.40	**101.9**
Lead	PB	PMS	MS112011	50.0	50.07	**100.1**	50.0	48.69	**97.4**	48.84	**97.7**	48.49	**97.0**	49.66	**99.3**	49.03	**98.1**
Magnesium	MG	ICP	IP111971	2000.0	2028.60	**101.4**	2000.0	2013.75	**100.7**	1991.31	**99.6**	2003.63	**100.2**	1961.53	**98.1**	1950.43	**97.5**
Manganese	MN	ICP	IP111971	1000.0	995.60	**99.6**	1000.0	1035.71	**103.6**	1025.82	**102.6**	1040.95	**104.1**	1028.81	**102.9**	1011.71	**101.2**
Potassium	K	ICP	IP111971	20000.0	20061.83	**100.3**	20000.0	19907.72	**99.5**	19674.12	**98.4**	20091.98	**100.5**	19700.75	**98.5**	19363.25	**96.8**
Sodium	NA	ICP	IP111971	50000.0	52246.58	**104.5**	50000.0	51334.92	**102.7**	50887.90	**101.8**	51758.68	**103.5**	51022.02	**102.0**	49343.22	**98.7**
Zinc	ZN	PMS	MS112011	50.0	50.67	**101.3**	50.0	51.76	**103.5**	50.94	**101.9**	49.61	**99.2**	50.41	**100.8**	49.23	**98.5**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VR36

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	IP111671	50.0	60.56	**121.1**	59.46	**118.9**	60.85	**121.7**						
Antimony	SB	PMS	MS111911	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS111911	0.2	0.20	**100.0**										
Barium	BA	ICP	IP111671	3.0	2.28	**76.0**	2.93	**97.7**	2.29	**76.3**						
Beryllium	BE	PMS	MS111911	0.2	0.20	**100.0**										
Cadmium	CD	PMS	MS111911	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP111671	50.0	47.91	**95.8**	50.54	**101.1**	51.28	**102.6**						
Chromium	CR	PMS	MS111911	0.5	0.58	**116.0**										
Cobalt	CO	PMS	MS111911	0.2	0.21	**105.0**										
Copper	CU	PMS	MS111911	0.5	0.53	**106.0**										
Iron	FE	ICP	IP111671	50.0	53.99	**108.0**	57.63	**115.3**	62.83	**125.7**						
Lead	PB	PMS	MS111911	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP111671	50.0	54.79	**109.6**	58.12	**116.2**	51.93	**103.9**						
Manganese	MN	ICP	IP111671	1.0	0.86	**86.0**	1.06	**106.0**	0.92	**92.0**						
Mercury	HG	CVA	HG111701	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS111911	0.5	0.51	**102.0**										
Potassium	K	ICP	IP111671	500.0	501.15	**100.2**	506.23	**101.2**	498.77	**99.8**						
Selenium	SE	PMS	MS111911	0.5	0.57	**114.0**										
Silver	AG	PMS	MS111911	0.2	0.21	**105.0**										
Sodium	NA	ICP	IP111671	500.0	471.16	**94.2**	475.77	**95.2**	466.00	**93.2**						
Thallium	TL	PMS	MS111911	0.2	0.21	**105.0**										
Vanadium	V	PMS	MS111911	0.2	0.24	**120.0**										
Zinc	ZN	PMS	MS111911	4.0	4.12	**103.0**										
Aluminum	AL	ICP	IP111971	50.0	51.13	**102.3**	49.69	**99.4**	53.98	**108.0**	54.95	**109.9**				
Barium	BA	ICP	IP111971	3.0	3.03	**101.0**	2.30	**76.7**	2.59	**86.3**	2.66	**88.7**				
Calcium	CA	ICP	IP111971	50.0	49.82	**99.6**	48.37	**96.7**	51.24	**102.5**	49.87	**99.7**				
Iron	FE	ICP	IP111971	50.0	54.10	**108.2**	53.38	**106.8**	59.70	**119.4**	60.14	**120.3**				
Lead	PB	PMS	MS112011	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP111971	50.0	48.10	**96.2**	38.39	**76.8**	42.49	**85.0**	45.34	**90.7**				
Manganese	MN	ICP	IP111971	1.0	1.26	**126.0**	1.04	**104.0**	1.30	**130.0**	1.71	**171.0**				
Potassium	K	ICP	IP111971	500.0	473.53	**94.7**	457.79	**91.6**	438.34	**87.7**	450.02	**90.0**				
Sodium	NA	ICP	IP111971	500.0	495.62	**99.1**	485.32	**97.1**	492.87	**98.6**	481.01	**96.2**				

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

UNITS: ug/L

SDG: VR36

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	MS112011		4.0	4.55	**113.8**										

VR36 : 00012

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: VR36

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP111671	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	MS111911	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	MS111911	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	IP111671	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	MS111911	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	MS111911	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	IP111671	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	MS111911	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	MS111911	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	MS111911	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	IP111671	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	MS111911	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	IP111671	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	IP111671	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	HG111701	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	MS111911	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	IP111671	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	MS111911	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	MS111911	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	IP111671	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	MS111911	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	MS111911	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	MS111911	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: VR36

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP111671	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	MS111911	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Arsenic	AS	PMS	MS111911	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Barium	BA	ICP	IP111671	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	MS111911	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Cadmium	CD	PMS	MS111911	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Calcium	CA	ICP	IP111671	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	MS111911	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Cobalt	CO	PMS	MS111911	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Copper	CU	PMS	MS111911	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Iron	FE	ICP	IP111671	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	MS111911	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Magnesium	MG	ICP	IP111671	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	IP111671	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	HG111701	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	MS111911	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Potassium	K	ICP	IP111671	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	MS111911	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Silver	AG	PMS	MS111911	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Sodium	NA	ICP	IP111671	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	MS111911	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Vanadium	V	PMS	MS111911	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Zinc	ZN	PMS	MS111911	20.0	4.0	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: VR36

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Aluminum	AL	ICP	IP111671	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Antimony	SB	PMS	MS111911	60.0	0.2												
Arsenic	AS	PMS	MS111911	10.0	0.2												
Barium	BA	ICP	IP111671	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U				
Beryllium	BE	PMS	MS111911	5.0	0.2												
Cadmium	CD	PMS	MS111911	5.0	0.1												
Calcium	CA	ICP	IP111671	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Chromium	CR	PMS	MS111911	10.0	0.5												
Cobalt	CO	PMS	MS111911	50.0	0.2												
Copper	CU	PMS	MS111911	25.0	0.5												
Iron	FE	ICP	IP111671	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Lead	PB	PMS	MS111911	3.0	0.1												
Magnesium	MG	ICP	IP111671	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Manganese	MN	ICP	IP111671	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U				
Mercury	HG	CVA	HG111701	0.2	0.1	0.1	U										
Nickel	NI	PMS	MS111911	40.0	0.5												
Potassium	K	ICP	IP111671	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U				
Selenium	SE	PMS	MS111911	5.0	0.5												
Silver	AG	PMS	MS111911	10.0	0.2												
Sodium	NA	ICP	IP111671	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U				
Thallium	TL	PMS	MS111911	10.0	0.2												
Vanadium	V	PMS	MS111911	50.0	0.2												
Zinc	ZN	PMS	MS111911	20.0	4.0												

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP111971	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	IP111971	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Calcium	CA	ICP	IP111971	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	IP111971	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	MS112011	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	IP111971	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	IP111971	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Potassium	K	ICP	IP111971	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Sodium	NA	ICP	IP111971	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	MS112011	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP111671

SDG: VR36

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	198988.9	194148.2	**97.1**	203627.5	201946.1	**101.0**	197978.0	196901.9	**98.5**
Antimony		1000	7.7	1012.6	**101.3**	8.0	1038.6	**103.9**	4.2	1032.5	**103.3**
Arsenic		1000	14.3	976.4	**97.6**	15.8	1005.5	**100.6**	16.4	1003.4	**100.3**
Barium		1000	-1.8	1005.3	**100.5**	-1.6	1064.1	**106.4**	-2.9	1020.2	**102.0**
Beryllium		1000	0.2	934.2	**93.4**	0.2	976.8	**97.7**	0.2	970.7	**97.1**
Boron			-0.6	-1.5		-2.7	-3.3		-3.6	-3.4	
Cadmium		1000	-0.3	1022.7	**102.3**	-0.2	1037.5	**103.8**	-0.6	1037.8	**103.8**
Calcium	100000	100000	97594.0	97457.4	**97.5**	101854.7	102165.0	**102.2**	98945.1	99798.3	**99.8**
Chromium		1000	-2.2	1004.0	**100.4**	-1.5	1056.9	**105.7**	-1.5	1039.4	**103.9**
Cobalt		1000	-0.8	992.3	**99.2**	-0.9	1021.2	**102.1**	-0.9	980.4	**98.0**
Copper		1000	-0.1	1023.3	**102.3**	0.3	1032.4	**103.2**	-0.4	1028.6	**102.9**
Iron	200000	200000	191940.1	191119.7	**95.6**	198295.7	198558.1	**99.3**	197639.7	199257.1	**99.6**
Lead		1000	2.2	960.2	**96.0**	1.0	986.9	**98.7**	2.6	982.0	**98.2**
Magnesium	100000	100000	102481.1	97554.2	**97.6**	105578.5	102153.7	**102.2**	98641.7	99250.0	**99.3**
Manganese		1000	0.5	957.2	**95.7**	0.7	994.8	**99.5**	0.7	992.7	**99.3**
Molybdenum			1.2	0.8		1.8	1.2		1.1	1.1	
Nickel		1000	0.1	937.2	**93.7**	0.4	986.2	**98.6**	0.0	954.9	**95.5**
Potassium			7.7	-29.1		14.4	-8.2		-7.9	-48.0	
Selenium		1000	16.9	967.0	**96.7**	17.4	997.2	**99.7**	14.3	998.0	**99.8**
Silicon			-1.6	-0.9		-1.4	0.1		0.8	3.0	
Silver		1000	-0.7	985.5	**98.6**	-0.8	999.7	**100.0**	-0.9	984.0	**98.4**
Sodium			16.3	30.9		10.2	26.9		12.8	23.4	
Strontium			3.9	3.7		3.9	3.9		3.9	3.9	
Thallium		1000	-0.6	911.1	**91.1**	-4.1	937.3	**93.7**	0.4	921.1	**92.1**
Tin			-7.6	-7.5		-8.7	-9.2		-7.4	-6.8	
Titanium			2.7	2.0		2.4	2.2		2.4	1.6	
Vanadium		1000	3.7	978.0	**97.8**	3.8	997.6	**99.8**	4.3	984.5	**98.5**
Zinc		1000	4.1	914.7	**91.5**	4.1	970.4	**97.0**	1.9	948.8	**94.9**

VR36 : 6554

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

ICS SOURCE: I.V.

RUNID: MS111911

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	0.0	19.3	**96.5**						
Barium			0.1	0.1							
Cadmium		20	0.1	19.6	**98.0**						
Chromium		20	0.6	20.8	**104.0**						
Cobalt		20	0.0	19.4	**97.0**						
Copper		20	1.2	20.8	**104.0**						
Manganese		20	0.1	19.0	**95.0**						
Molybdenum	400	400	426.2	433.4	**108.4**						
Nickel		20	0.4	20.6	**103.0**						
Selenium			-0.3	-0.3							
Silver		20	0.0	20.4	**102.0**						
Thorium			0.3	0.1							
Vanadium			0.2	0.1							
Zinc		20	1.3	19.9	**99.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP111971

SDG: VR36

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	198717.9	197872.1	**98.9**	194148.8	192173.2	**96.1**			
Antimony		1000	7.8	1015.0	**101.5**	7.0	989.7	**99.0**			
Arsenic		1000	16.2	1045.4	**104.5**	16.1	1022.4	**102.2**			
Barium		1000	-1.3	1004.2	**100.4**	-1.8	963.2	**96.3**			
Beryllium		1000	0.1	1002.5	**100.3**	0.0	996.3	**99.6**			
Boron			0.0	-1.1		-2.0	-1.8				
Cadmium		1000	-0.1	1034.3	**103.4**	-0.6	1009.5	**101.0**			
Calcium	100000	100000	98160.2	99077.3	**99.1**	96458.4	97098.0	**97.1**			
Chromium		1000	-0.3	1022.0	**102.2**	1.5	996.8	**99.7**			
Cobalt		1000	-0.5	999.4	**99.9**	-0.5	949.3	**94.9**			
Copper		1000	-0.7	1028.1	**102.8**	-1.2	1004.4	**100.4**			
Iron	200000	200000	195077.3	196698.8	**98.3**	194089.7	194452.0	**97.2**			
Lead		1000	2.3	992.7	**99.3**	1.7	969.7	**97.0**			
Magnesium	100000	100000	102497.2	99068.4	**99.1**	99965.8	96590.8	**96.6**			
Manganese		1000	1.2	981.8	**98.2**	0.9	968.1	**96.8**			
Molybdenum			1.4	1.3		0.9	1.2				
Nickel		1000	0.9	979.9	**98.0**	1.8	956.6	**95.7**			
Potassium			4.3	-55.6		-19.3	-77.0				
Selenium		1000	13.5	1028.1	**102.8**	9.1	1012.1	**101.2**			
Silicon			-1.6	1.1		-2.3	-3.4				
Silver		1000	-1.1	1011.9	**101.2**	-1.4	980.0	**98.0**			
Sodium			16.8	31.1		24.4	36.7				
Strontium			4.1	4.0		3.9	3.9				
Thallium		1000	-5.6	940.0	**94.0**	-5.7	916.8	**91.7**			
Tin			-5.6	-5.7		-4.3	-4.4				
Titanium			1.3	0.9		1.1	0.6				
Vanadium		1000	6.2	983.4	**98.3**	6.5	958.1	**95.8**			
Zinc		1000	3.7	984.5	**98.5**	3.3	965.7	**96.6**			

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

ICS SOURCE: I.V.

RUNID: MS112011

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	20000	20000	19829.5	20042.9	**100.2**						
Antimony			0.1	0.1							
Arsenic		20	0.3	19.3	**96.5**						
Barium			0.1	0.1							
Cadmium		20	0.1	20.0	**100.0**						
Chromium		20	0.6	20.4	**102.0**						
Cobalt		20	0.0	19.7	**98.5**						
Copper		20	1.2	21.6	**108.0**						
Iron	20000	20000	19313.8	19100.4	**95.5**						
Manganese		20	0.1	18.7	**93.5**						
Molybdenum	400	400	409.5	427.6	**106.9**						
Nickel		20	0.4	21.0	**105.0**						
Selenium			-0.3	-0.4							
Silver		20	0.0	21.1	**105.5**						
Thorium			0.3	0.1							
Vanadium			0.2	0.2							
Zinc		20	1.8	19.9	**99.5**						

VR36 9555

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR36

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Zinc	SA7-4CA	VR36APOST	MS111911	5765.20		4016.00		2000	Soil	**87.5**
Antimony	SA7-4CA	VR36APOST	MS111911	493.20	B	31.60	B	500	Soil	**92.3**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VR36

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA7-4CL	VR36A-L	Soil	IP111671	19754.79		21307.00		7.9	
Barium	SA7-4CL	VR36A-L	Soil	IP111671	236.03		256.05	B	8.5	
Calcium	SA7-4CL	VR36A-L	Soil	IP111671	7005.90		7424.00	B	6.0	
Iron	SA7-4CL	VR36A-L	Soil	IP111671	32731.35		35130.10		7.3	
Magnesium	SA7-4CL	VR36A-L	Soil	IP111671	7577.29		8184.05	B	8.0	
Manganese	SA7-4CL	VR36A-L	Soil	IP111671	1090.14		1168.85		7.2	
Potassium	SA7-4CL	VR36A-L	Soil	IP111671	2114.60	B	2500.00	U	100.0	
Sodium	SA7-4CL	VR36A-L	Soil	IP111671	204.09	U	2500.00	U		

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR36

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA7-4CL	VR36A-L	Soil	MS111911	1.58	B	1.70	B	7.6	
Arsenic	SA7-4CL	VR36A-L	Soil	MS111911	10.69		11.00	B	2.9	
Beryllium	SA7-4CL	VR36A-L	Soil	MS111911	0.21	B	0.20	B	4.8	
Cadmium	SA7-4CL	VR36A-L	Soil	MS111911	5.10		5.25	B	2.9	
Chromium	SA7-4CL	VR36A-L	Soil	MS111911	7.53	B	7.90	B	4.9	
Cobalt	SA7-4CL	VR36A-L	Soil	MS111911	2.21	B	2.30	B	4.1	
Copper	SA7-4CL	VR36A-L	Soil	MS111911	13.60	B	13.90	B	2.2	
Nickel	SA7-4CL	VR36A-L	Soil	MS111911	6.30	B	6.40	B	1.6	
Selenium	SA7-4CL	VR36A-L	Soil	MS111911	0.25	U	-0.10	B		
Silver	SA7-4CL	VR36A-L	Soil	MS111911	0.25	B	0.25	B	0.0	
Thallium	SA7-4CL	VR36A-L	Soil	MS111911	0.26	B	0.25	B	3.8	
Vanadium	SA7-4CL	VR36A-L	Soil	MS111911	9.64	B	9.70	B	0.6	
Zinc	SA7-4CL	VR36A-L	Soil	MS111911	200.80		226.45		12.8	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR36

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Lead	SA7-4CL	VR36A-L	Soil	MS112011	57.34		57.90		1.0	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36 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: VR36

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

VR36 5555

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

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: VR36

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/15/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA7-4C	VR36A	1.087	0.0	50.0
SA7-4CD	VR36ADUP	1.085	0.0	50.0
SA7-4CS	VR36ASPK	1.089	0.0	50.0
SA7-5C	VR36B	1.005	0.0	50.0
SA7-6C	VR36C	1.074	0.0	50.0
SA7-6P-1(0 to 3	VR36D	1.042	0.0	50.0
SA7-6P-2(3 to 6	VR36E	1.066	0.0	50.0
SA7-6P-3(6 to 12	VR36F	1.026	0.0	50.0
SA7-6P-4(12 to 24	VR36G	1.028	0.0	50.0
SA7-Field Duplicat	VR36H	1.065	0.0	50.0
SA8-1C	VR36I	1.009	0.0	50.0
SA8-2C	VR36J	1.006	0.0	50.0
SA8-2P-1(0 to 3	VR36K	1.041	0.0	50.0
SA8-2P-2(3 to 6	VR36L	1.033	0.0	50.0
PBS	VR36MB1	1.000	0.0	50.0
LCSS	VR36MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/15/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA7-4C	VR36A	1.083	0.0	50.0
SA7-4CD	VR36ADUP	1.085	0.0	50.0
SA7-4CS	VR36ASPK	1.085	0.0	50.0
SA7-5C	VR36B	1.037	0.0	50.0
SA7-6C	VR36C	1.075	0.0	50.0
SA7-6P-1(0 to 3	VR36D	1.045	0.0	50.0
SA7-6P-2(3 to 6	VR36E	1.057	0.0	50.0
SA7-6P-3(6 to 12	VR36F	1.030	0.0	50.0
SA7-6P-4(12 to 24	VR36G	1.021	0.0	50.0
SA7-Field Duplicat	VR36H	1.075	0.0	50.0
SA8-1C	VR36I	1.012	0.0	50.0
SA8-2C	VR36J	1.016	0.0	50.0
SA8-2P-1(0 to 3	VR36K	1.066	0.0	50.0
SA8-2P-2(3 to 6	VR36L	1.074	0.0	50.0
PBS	VR36MB1	1.000	0.0	50.0
LCSS	VR36MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/15/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA7-4C	VR36A	0.710	0.0	50.0
SA7-4CD	VR36ADUP	0.707	0.0	50.0
SA7-4CS	VR36ASPK	0.709	0.0	50.0
SA7-5C	VR36B	0.709	0.0	50.0
SA7-6C	VR36C	0.746	0.0	50.0
SA7-6P-1(0 to 3	VR36D	0.712	0.0	50.0
SA7-6P-2(3 to 6	VR36E	0.731	0.0	50.0
SA7-6P-3(6 to 12	VR36F	0.733	0.0	50.0
SA7-6P-4(12 to 24	VR36G	0.708	0.0	50.0
SA7-Field Duplicat	VR36H	0.707	0.0	50.0
SA8-1C	VR36I	0.722	0.0	50.0
SA8-2C	VR36J	0.742	0.0	50.0
SA8-2P-1(0 to 3	VR36K	0.724	0.0	50.0
SA8-2P-2(3 to 6	VR36L	0.728	0.0	50.0
PBS	VR36MB1	0.700	0.0	50.0
LCSW	VR36MB1SPK	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: 11/16/2012

SDG: VR36 | RUNID: IP111671 | METHOD: ICP | END DATE: 11/16/2012

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	08401			X			X		X					X		X	X	X		X											
S2	S2	1.00	08443						X											X													
S3	S3	1.00	08473																														
S4	S4	1.00	08501																														
S5	S5	1.00	08522			X					X					X		X	X			X											
S2	S2	1.00	09033						X											X													
ICV	ICV	1.00	09052			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	09091			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	09132			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	09174			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	09220			X			X		X					X		X	X	X		X											
CCV	CCV1	1.00	09265			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	09314			X			X		X					X		X	X	X		X											
ZZZZZZ	VR30B	5.00	09360																														
ZZZZZZ	VR30D	5.00	09400																														
ZZZZZZ	VR30E	5.00	09440																														
ZZZZZZ	VR30F	5.00	09480																														
ZZZZZZ	VR30G	5.00	09520																														
ZZZZZZ	VR30H	5.00	09560																														
CCV	CCV2	1.00	10000			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	10050			X			X		X					X		X	X	X		X											
ZZZZZZ	VR32A-L	5.00	10091																														
ZZZZZZ	VR32A	5.00	10131																														
ZZZZZZ	VR32ADUP	5.00	10171																														
ZZZZZZ	VR32ASPK	5.00	10212																														
ZZZZZZ	ZZZZZZ	5.00	10250																														
ZZZZZZ	VR32L	5.00	10280																														
CCV	CCV3	1.00	10321			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	10361			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	10403			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	10445			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	10490			X			X		X					X		X	X	X		X											
CCV	CCV4	1.00	10525			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	10575			X			X		X					X		X	X	X		X											
ZZZZZZ	VR34MB1	2.00	11020																														

FORM XIV

VR36 9005 1

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/16/2012

SDG: VR36 | RUNID: IP111671 | METHOD: ICP | END DATE: 11/16/2012

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	VR34B	5.00	11062																														
ZZZZZZ	VR34C	5.00	11102																														
ZZZZZZ	VR34D	5.00	11142																														
ZZZZZZ	ZZZZZZ	25.00	11182																														
ZZZZZZ	VR34A	5.00	11222																														
ZZZZZZ	VR34ADUP	5.00	11262																														
ZZZZZZ	VR34ASPK	5.00	11302																														
ZZZZZZ	ZZZZZZ	5.00	11341																														
ZZZZZZ	VR34MB1SPK	2.00	11380																														
CCV	CCV5	1.00	11420			X			X		X					X		X	X	X		X										
CCB	CCB5	1.00	11465			X			X		X					X		X	X	X		X										
CCV	CCV6	1.00	12110			X			X		X					X		X	X	X		X										
CCB	CCB6	1.00	12155			X			X		X					X		X	X	X		X										
ZZZZZZ	VR34E	5.00	12201																														
ZZZZZZ	VR34F	5.00	12241																														
ZZZZZZ	VR34G	5.00	12281																														
ZZZZZZ	VR34H	5.00	12321																														
ZZZZZZ	VR34I	5.00	12361																														
ZZZZZZ	VR34J	5.00	12401																														
ZZZZZZ	VR34K	5.00	12441																														
ZZZZZZ	VR34L	5.00	12482																														
CCV	CCV7	1.00	12522			X			X		X					X		X	X	X		X										
CCB	CCB7	1.00	12572			X			X		X					X		X	X	X		X										
CCV	CCV8	1.00	13294			X			X		X					X		X	X	X		X										
CCB	CCB8	1.00	13345			X			X		X					X		X	X	X		X										
ZZZZZZ	VR34MB1	2.00	13391																														
ZZZZZZ	VR34B	5.00	13432																														
ZZZZZZ	VR34C	5.00	13472																														
ZZZZZZ	VR34D	5.00	13513																														
ZZZZZZ	VR34A-L	25.00	13553																														
ZZZZZZ	VR34A	5.00	13593																														
ZZZZZZ	VR34ADUP	5.00	14033																														
ZZZZZZ	VR34ASPK	5.00	14073																														
ZZZZZZ	ZZZZZZ	5.00	14113																														
ZZZZZZ	VR34MB1SPK	2.00	14153																														

FORM XIV

VR36 9992

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/16/2012

SDG: VR36 | RUNID: IP111671 | METHOD: ICP | END DATE: 11/16/2012

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	CCV9	1.00	14193			X			X		X					X		X	X	X		X											
CCB	CCB9	1.00	14234			X			X		X					X		X	X	X		X											
ZZZZZZ	VR33MB1	2.00	14280																														
ZZZZZZ	VR33B	5.00	14321																														
ZZZZZZ	VR33C	5.00	14361																														
ZZZZZZ	VR33D	5.00	14400																														
ZZZZZZ	VR33A-L	25.00	14440																														
ZZZZZZ	VR33A	5.00	14480																														
ZZZZZZ	VR33ADUP	5.00	14520																														
ZZZZZZ	VR33ASPK	5.00	14561																														
ZZZZZZ	ZZZZZZ	5.00	15001																														
ZZZZZZ	VR33MB1SPK	2.00	15031																														
CCV	CCV10	1.00	15071			X			X		X					X		X	X	X		X											
CCB	CCB10	1.00	15120			X			X		X					X		X	X	X		X											
CCV	CCV11	1.00	15171			X			X		X					X		X	X	X		X											
CCB	CCB11	1.00	15212			X			X		X					X		X	X	X		X											
ZZZZZZ	VR33E	5.00	15270																														
ZZZZZZ	VR33F	5.00	15310																														
ZZZZZZ	VR33G	5.00	15350																														
ZZZZZZ	VR33H	5.00	15390																														
ZZZZZZ	VR33I	5.00	15430																														
ZZZZZZ	VR33J	5.00	15470																														
ZZZZZZ	VR33K	5.00	15511																														
ZZZZZZ	VR33L	5.00	15551																														
CCV	CCV12	1.00	15591			X			X		X					X		X	X	X		X											
CCB	CCB12	1.00	16041			X			X		X					X		X	X	X		X											
CRI	CRIF1	1.00	16083			X			X		X					X		X	X	X		X											
ICSA	ICSAF1	1.00	16125			X			X		X					X		X	X	X		X											
ICSAB	ICSABF1	1.00	16170			X			X		X					X		X	X	X		X											
CCV	CCV13	1.00	16205			X			X		X					X		X	X	X		X											
CCB	CCB13	1.00	16250			X			X		X					X		X	X	X		X											
PBS	VR36MB1	2.00	16292			X			X		X					X		X	X	X		X											
SA7-5C	VR36B	5.00	16333			X			X		X					X		X	X	X		X											
SA7-6C	VR36C	5.00	16373			X			X		X					X		X	X	X		X											
SA7-6P-1(0 to 3	VR36D	5.00	16414			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: 11/16/2012

SDG: VR36 | RUNID: IP111671 | METHOD: ICP | END DATE: 11/16/2012

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
SA7-4CL	VR36A-L	25.00	16454			X			X		X					X		X	X	X		X											
SA7-4C	VR36A	5.00	16494			X			X		X					X		X	X	X		X											
SA7-4CD	VR36ADUP	5.00	16534			X			X		X					X		X	X	X		X											
SA7-4CS	VR36ASPK	5.00	16574			X			X		X					X		X	X	X		X											
ZZZZZZ	ZZZZZZ	5.00	17014																														
LCSS	VR36MB1SPK	2.00	17054			X			X		X					X		X	X	X		X											
CCV	CCV14	1.00	17094			X			X		X					X		X	X	X		X											
CCB	CCB14	1.00	17143			X			X		X					X		X	X	X		X											
SA7-6P-2(3 to 6	VR36E	5.00	17185																														
SA7-6P-3(6 to 12	VR36F	5.00	17225																														
SA7-6P-4(12 to 24	VR36G	5.00	17265																														
SA7-Field Duplicat	VR36H	5.00	17305																														
SA8-1C	VR36I	5.00	17345																														
SA8-2C	VR36J	5.00	17390																														
SA8-2P-1(0 to 3	VR36K	5.00	17430																														
SA8-2P-2(3 to 6	VR36L	5.00	17470																														
CCV	CCV15	1.00	17510			X			X		X					X		X	X	X		X											
CCB	CCB15	1.00	17555			X			X		X					X		X	X	X		X											

VR36 5951

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: OPTIMA ICP 2 START DATE: 11/19/2012

SDG: VR36 RUNID: IP111971 METHOD: ICP END DATE: 11/19/2012

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	09395			X			X		X					X		X	X	X		X											
S2	S2	1.00	09441						X											X													
S3	S3	1.00	09460																														
S4	S4	1.00	09483																														
S5	S5	1.00	09504			X					X					X		X	X			X											
ICV	ICV	1.00	09535			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	09580			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	10021			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	10063			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	10104			X			X		X					X		X	X	X		X											
ZZZZZZ	HiPur	1.00	10154																														
ZZZZZZ	SpexQC	1.00	10195																														
ZZZZZZ	DICheck	1.00	10241																														
CCV	CCV1	1.00	10282			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	10324			X			X		X					X		X	X	X		X											
ZZZZZZ	HiPur	1.00	10525																														
ZZZZZZ	SpexQC	1.00	10571																														
CCV	CCV2	1.00	11012			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	11054			X			X		X					X		X	X	X		X											
ZZZZZZ	VS75MB	1.00	11140																														
ZZZZZZ	VS67MB	5.00	11182																														
ZZZZZZ	VS75A	1.00	11225																														
ZZZZZZ	VS75B	1.00	11265																														
ZZZZZZ	VS67B	5.00	11310																														
ZZZZZZ	VS67ADUP	5.00	11354																														
ZZZZZZ	VS67A	5.00	11401																														
ZZZZZZ	VS67ASPK	5.00	11442																														
ZZZZZZ	VS75MBSPK	1.00	11490																														
CCV	CCV3	1.00	11530			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	11572			X			X		X					X		X	X	X		X											
SA7-6P-2(3 to 6	VR36E	5.00	12014			X			X		X					X		X	X	X		X											
SA7-6P-3(6 to 12	VR36F	5.00	12054			X			X		X					X		X	X	X		X											
SA7-6P-4(12 to 24	VR36G	5.00	12094			X			X		X					X		X	X	X		X											
SA7-Field Duplicat	VR36H	5.00	12134			X			X		X					X		X	X	X		X											
SA8-1C	VR36I	5.00	12174			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: 11/19/2012

SDG: VR36 | RUNID: IP111971 | METHOD: ICP | END DATE: 11/19/2012

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
SA8-2C	VR36J	5.00	12214			X			X		X					X		X	X	X		X											
SA8-2P-1(0 to 3	VR36K	5.00	12254			X			X		X					X		X	X	X		X											
SA8-2P-2(3 to 6	VR36L	5.00	12294			X			X		X					X		X	X	X		X											
CCV	CCV4	1.00	12334			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	12380			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	12421			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	12463			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	12504			X			X		X					X		X	X	X		X											
CCV	CCV5	1.00	12543			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	12585			X			X		X					X		X	X	X		X											

VR36 6965

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

INSTRUMENT ID: NEXION 300D MS

RUNID: MS111911 METHOD: PMS

START DATE: 11/19/2012

END DATE: 11/19/2012

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	12460		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	12500		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	12540		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	12590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	13030		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	13090																														
ZZZZZZ	Rinse sampl	1.00	13160																														
ICV	MICV	1.00	13230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	13300		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	13340		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	13410		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	13450		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	13490		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	13550		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	14020																														
ZZZZZZ	LR300	1.00	14090																														
ZZZZZZ	B1	1.00	14160																														
ZZZZZZ	B2	1.00	14220																														
ZZZZZZ	B3	1.00	14280																														
CCV	MCCV2	1.00	14320		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	14390		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR32A-L	100.00	14460																														
ZZZZZZ	VR32A	20.00	14500																														
ZZZZZZ	VR32ADUP	20.00	14540																														
ZZZZZZ	VR32ASPK	20.00	14580																														
ZZZZZZ	VR32B	20.00	15020																														
ZZZZZZ	VR32C	20.00	15060																														
ZZZZZZ	VR32D	20.00	15100																														
ZZZZZZ	VR32E	20.00	15150																														
ZZZZZZ	VR32F	20.00	15200																														
ZZZZZZ	VR32G	20.00	15240																														
CCV	MCCV3	1.00	15280		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	15350		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR33MB1	20.00	15410																														
ZZZZZZ	VR33MB1SPK	20.00	15450																														

FORM XIV

Analysis Run Log

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

INSTRUMENT ID: NEXION 300D MS

RUNID: MS111911 METHOD: PMS

START DATE: 11/19/2012

END DATE: 11/19/2012

ANALYTICAL RESOURCES INCORPORATED

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	VR32H	20.00	15490																														
ZZZZZZ	VR32I	20.00	15530																														
ZZZZZZ	VR32J	20.00	15570																														
ZZZZZZ	VR32K	20.00	16010																														
ZZZZZZ	VR32L	100.00	16070																														
ZZZZZZ	VR32L	20.00	16110																														
ZZZZZZ	VR33C	100.00	16150																														
ZZZZZZ	VR33C	20.00	16190																														
CCV	MCCV4	1.00	16230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	16300		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR33A-L	100.00	16350																														
ZZZZZZ	VR33A	20.00	16390																														
ZZZZZZ	VR33ADUP	20.00	16430																														
ZZZZZZ	VR33ASPK	20.00	16470																														
ZZZZZZ	VR33B	20.00	16520																														
ZZZZZZ	VR33D	20.00	16560																														
ZZZZZZ	VR33E	20.00	17000																														
ZZZZZZ	VR33F	20.00	17040																														
ZZZZZZ	VR33G	20.00	17090																														
ZZZZZZ	VR33H	20.00	17130																														
CCV	MCCV5	1.00	17170		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	17240		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR34A-L	500.00	17340																														
ZZZZZZ	VR34A	100.00	17380																														
ZZZZZZ	VR34ADUP	100.00	17420																														
ZZZZZZ	VR34ASPK	100.00	17460																														
ZZZZZZ	VR34B	20.00	17500																														
ZZZZZZ	VR34C	20.00	17550																														
ZZZZZZ	VR33I	20.00	17590																														
ZZZZZZ	VR33J	20.00	18030																														
ZZZZZZ	VR33K	20.00	18080																														
ZZZZZZ	VR33L	20.00	18120																														
CCV	MCCV6	1.00	18160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	18230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR34MB1	20.00	18290																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/19/2012

SDG: VR36 | RUNID: MS111911 METHOD: PMS | END DATE: 11/19/2012

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	VR34MB1SPK	20.00	18330																														
ZZZZZZ	VR34A-L	100.00	18370																														
ZZZZZZ	VR34A	20.00	18410																														
ZZZZZZ	VR34ADUP	20.00	18450																														
ZZZZZZ	VR34ASPK	20.00	18490																														
ZZZZZZ	VR34D	20.00	18530																														
ZZZZZZ	VR34E	20.00	18570																														
ZZZZZZ	VR34F	100.00	19030																														
ZZZZZZ	VR34F	20.00	19070																														
CCV	MCCV7	1.00	19110		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB7	1.00	19180		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR73MB1	2.00	19230																														
ZZZZZZ	VR73MB1SPK	2.00	19270																														
ZZZZZZ	VR34G	20.00	19310																														
ZZZZZZ	VR34H	20.00	19350																														
ZZZZZZ	VR34I	20.00	19390																														
ZZZZZZ	VR34J	20.00	19430																														
ZZZZZZ	VR34K	20.00	19480																														
ZZZZZZ	VR34L	20.00	19520																														
ZZZZZZ	VR73A	20.00	19570																														
ZZZZZZ	VR73C	20.00	20020																														
CCV	MCCV8	1.00	20060		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB8	1.00	20130		X		X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VR36MB1	20.00	20170		X		X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VR36MB1SPK	20.00	20210		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA7-4CL	VR36A-L	100.00	20250		X		X			X		X	X	X	X								X		X	X				X		X	X
SA7-4C	VR36A	20.00	20290		X		X			X		X	X	X	X								X		X	X				X		X	X
SA7-4CD	VR36ADUP	20.00	20330		X		X			X		X	X	X	X								X		X	X				X		X	X
SA7-4CS	VR36ASPK	20.00	20370		X		X			X		X	X	X	X								X		X	X				X		X	X
SA7-4CA	VR36APOST	20.00	20420																						X								X
SA7-5C	VR36B	20.00	20460		X		X			X		X	X	X	X								X		X	X				X		X	
SA7-6C	VR36C	20.00	20510		X		X			X		X	X	X	X								X		X	X				X		X	
SA7-6P-1(0 to 3	VR36D	20.00	20550		X		X			X		X	X	X	X								X		X	X				X		X	
CCV	MCCV9	1.00	20590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB9	1.00	21060		X		X			X		X	X	X	X								X	X	X	X				X		X	X

FORM XIV

VR36 0055

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/19/2012

SDG: VR36 | RUNID: MS111911 METHOD: PMS | END DATE: 11/19/2012

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	VR37MB1	20.00	21100																														
ZZZZZZ	VR37MB1SPK	20.00	21140																														
SA7-6P-2(3 to 6	VR36E	20.00	21180		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA7-6P-3(6 to 12	VR36F	20.00	21220		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA7-6P-4(12 to 24	VR36G	20.00	21270		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA7-Field Duplicat	VR36H	20.00	21310		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-1C	VR36I	20.00	21350		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-2C	VR36J	20.00	21390		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-2P-1(0 to 3	VR36K	20.00	21440		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-2P-2(3 to 6	VR36L	20.00	21480		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV10	1.00	21520		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB10	1.00	21590		X		X			X		X	X	X	X								X	X	X	X				X		X	X

VR36 5005

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/20/2012

SDG: VR36 | RUNID: MS112011 METHOD: PMS | END DATE: 11/20/2012

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	10120																					X									X
S1	S1	1.00	10160																					X									X
S2	S2	1.00	10210																					X									X
S3	S3	1.00	10250																					X									X
S4	S4	1.00	10300																					X									X
S5	S5	1.00	10360																														
ZZZZZZ	Rinse sampl	1.00	10430																														
ICV	MICV	1.00	10500																					X									X
ICB	ICB	1.00	10570																					X									X
CCV	MCCV1	1.00	11010																					X									X
CCB	CCB1	1.00	11080																					X									X
CRI	MCRI	1.00	11120																					X									X
ICSA	ICSAI	1.00	11160																					X									X
ICSAB	ICSABI	1.00	11230																					X									X
ZZZZZZ	LR200	1.00	11300																														
ZZZZZZ	LR300	1.00	11370																														
ZZZZZZ	B1	1.00	11440																														
ZZZZZZ	B2	1.00	11500																														
ZZZZZZ	B3	1.00	11560																														
CCV	MCCV2	1.00	12000																					X									X
CCB	CCB2	1.00	12070																					X									X
ZZZZZZ	VS84MB	2.00	12120																														
ZZZZZZ	VS84MBSPK	2.00	12170																														
ZZZZZZ	VS84B	2.00	12210																														
ZZZZZZ	VS84C	2.00	12250																														
ZZZZZZ	VS84ADUP	20.00	12290																														
ZZZZZZ	VS84A	20.00	12340																														
ZZZZZZ	VS84ASPK	20.00	12380																														
ZZZZZZ	VS84ADUP	2.00	12420																														
ZZZZZZ	VS84A	2.00	12470																														
ZZZZZZ	VS84ASPK	2.00	12520																														
CCV	MCCV3	1.00	12560																					X									X
CCB	CCB3	1.00	13030																					X									X
SA7-4CL	VR36A-L	500.00	13090																					X									
SA7-4C	VR36A	100.00	13130																					X									

FORM XIV

VR36 : 9057.1

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

INSTRUMENT ID: NEXION 300D MS

RUNID: MS112011 METHOD: PMS

START DATE: 11/20/2012

END DATE: 11/20/2012

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
SA7-4CD	VR36ADUP	100.00	13180																					X									
SA7-4CS	VR36ASPK	100.00	13220																					X									
SA7-5C	VR36B	100.00	13260																					X									X
SA7-6C	VR36C	100.00	13300																					X									X
SA7-6P-1(0 to 3	VR36D	100.00	13360																					X									X
SA7-Field Duplicat	VR36H	100.00	13400																					X									X
SA8-1C	VR36I	100.00	13440																					X									X
SA8-2C	VR36J	100.00	13480																					X									X
CCV	MCCV4	1.00	13530																					X									X
CCB	CCB4	1.00	14000																					X									X
SA8-2P-1(0 to 3	VR36K	100.00	14130																					X									X
ZZZZZZ	VR37D	100.00	14170																														
ZZZZZZ	VR37E	100.00	14210																														
ZZZZZZ	VR37F	100.00	14260																														
ZZZZZZ	VR37G	100.00	14300																														
ZZZZZZ	VR37H	100.00	14340																														
ZZZZZZ	VR37J	100.00	14380																														
ZZZZZZ	VR37N	100.00	14430																														
ZZZZZZ	VR37O	100.00	14480																														
ZZZZZZ	VR34G	100.00	14520																														
CCV	MCCV5	1.00	14560																					X									X
CCB	CCB5	1.00	15030																					X									X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR36

INSTRUMENT ID: CETAC MERCURY

RUNID: HG111701 METHOD: CVA

START DATE: 11/17/2012

END DATE: 11/17/2012

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	06462														X																
S0.1	S0.1	1.00	06475														X																
S0.5	S0.5	1.00	06493														X																
S1	S1	1.00	06511														X																
S2	S2	1.00	06524														X																
S5	S5	1.00	06542														X																
S10	S10	1.00	06560														X																
ICV	AICV	1.00	07050														X																
ICB	ICB	1.00	07063														X																
CCV	ACCV1	1.00	07081														X																
CCB	CCB1	1.00	07095														X																
CRA	CRA	1.00	07113														X																
ZZZZZZ	VS18MB1	1.00	07130																														
ZZZZZZ	VS18MB1SPK	1.00	07144																														
ZZZZZZ	VS18A	1.00	07161																														
ZZZZZZ	VS18ADUP	1.00	07175																														
ZZZZZZ	VS18ASPK	1.00	07193																														
ZZZZZZ	VS18B	1.00	07210																														
ZZZZZZ	VS18C	1.00	07224																														
ZZZZZZ	VS18D	1.00	07242																														
ZZZZZZ	VS18E	1.00	07260																														
CCV	ACCV2	1.00	07274														X																
CCB	CCB2	1.00	07292														X																
ZZZZZZ	VS18F	1.00	07310																														
ZZZZZZ	VS18G	1.00	07323																														
ZZZZZZ	VS18H	1.00	07341																														
ZZZZZZ	VS18I	1.00	07354																														
ZZZZZZ	VS18J	1.00	07372																														
ZZZZZZ	VS18K	1.00	07385																														
ZZZZZZ	VS18L	1.00	07403																														
ZZZZZZ	VR37MB1	1.00	07421																														
ZZZZZZ	VR37MB1SPK	1.00	07434																														
ZZZZZZ	VR37A	1.00	07452																														
CCV	ACCV3	1.00	07470														X																
CCV	ACCV4	1.00	07584														X																

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR36 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	08002														X																
ZZZZZZ	VS18F	1.00	08020																														
ZZZZZZ	VS18G	1.00	08033																														
ZZZZZZ	VS18H	1.00	08051																														
ZZZZZZ	VS18I	1.00	08064																														
ZZZZZZ	VS18J	1.00	08082																														
ZZZZZZ	VS18K	1.00	08095																														
ZZZZZZ	VS18L	1.00	08113																														
ZZZZZZ	VR37MB1	1.00	08131																														
ZZZZZZ	VR37MB1SPK	1.00	08144																														
ZZZZZZ	VR37A	1.00	08162																														
CCV	ACCV5	1.00	08180														X																
CCB	CCB4	1.00	08194														X																
ZZZZZZ	VR37ADUP	1.00	08212																														
ZZZZZZ	VR37ASPK	1.00	08230																														
ZZZZZZ	VR37B	1.00	08243																														
ZZZZZZ	VR37C	1.00	08261																														
ZZZZZZ	VR37D	1.00	08274																														
ZZZZZZ	VR37E	1.00	08292																														
ZZZZZZ	VR37F	1.00	08310																														
ZZZZZZ	VR37G	1.00	08323																														
ZZZZZZ	VR37H	1.00	08341																														
ZZZZZZ	VR37I	1.00	08355																														
CCV	ACCV6	1.00	08373														X																
CCB	CCB5	1.00	08391														X																
ZZZZZZ	VR37J	1.00	08404																														
ZZZZZZ	VR37K	1.00	08422																														
ZZZZZZ	VR37L	1.00	08440																														
ZZZZZZ	VR37M	1.00	08454																														
ZZZZZZ	VR37N	1.00	08472																														
ZZZZZZ	VR37O	1.00	08485																														
ZZZZZZ	VR58MB1	1.00	08503																														
ZZZZZZ	VR58MB1SPK	1.00	08520																														
ZZZZZZ	VR58A	1.00	08534																														
ZZZZZZ	VR58ADUP	1.00	08552																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR36 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	ACCV7	1.00	08565														X																
CCB	CCB6	1.00	08584														X																
ZZZZZZ	VR58ASPK	1.00	09001																														
ZZZZZZ	VR58B	1.00	09015																														
ZZZZZZ	VR58C	1.00	09033																														
ZZZZZZ	VR58D	1.00	09051																														
ZZZZZZ	VR58E	1.00	09065																														
ZZZZZZ	VR58F	1.00	09082																														
ZZZZZZ	VR58G	1.00	09100																														
ZZZZZZ	VR58H	1.00	09114																														
ZZZZZZ	VR58I	1.00	09131																														
ZZZZZZ	VR58J	1.00	09145																														
CCV	ACCV8	1.00	09163														X																
CCB	CCB7	1.00	09181														X																
ZZZZZZ	VR82A	1.00	09195																														
ZZZZZZ	VR82B	1.00	09213																														
ZZZZZZ	VR82C	1.00	09230																														
ZZZZZZ	VR82D	1.00	09244																														
ZZZZZZ	VR82E	1.00	09262																														
ZZZZZZ	VR82F	1.00	09280																														
ZZZZZZ	VR82G	1.00	09294																														
ZZZZZZ	VR82H	1.00	09311																														
ZZZZZZ	VR82I	1.00	09325																														
CCV	ACCV9	1.00	09343														X																
CCB	CCB8	1.00	09361														X																
ZZZZZZ	VR30MB1	1.00	09382																														
ZZZZZZ	VR30MB1SPK	1.00	09395																														
ZZZZZZ	VR30A	1.00	09413																														
ZZZZZZ	VR30ADUP	1.00	09430																														
ZZZZZZ	VR30ASPK	1.00	09444																														
ZZZZZZ	VR30B	1.00	09461																														
ZZZZZZ	VR30C	1.00	09475																														
ZZZZZZ	VR30D	1.00	09492																														
ZZZZZZ	VR30E	1.00	09510																														
ZZZZZZ	VR30F	1.00	09524																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR36 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	ACCV10	1.00	09542														X																
CCB	CCB9	1.00	09560														X																
ZZZZZZ	VR30G	1.00	09574																														
ZZZZZZ	VR30H	1.00	09592																														
ZZZZZZ	VR30I	1.00	10005																														
ZZZZZZ	VR30J	1.00	10023																														
ZZZZZZ	VR30K	1.00	10040																														
ZZZZZZ	VR30L	1.00	10054																														
PBW	VR36MB1	1.00	10072														X																
LCSW	VR36MB1SPK	1.00	10085														X																
SA7-4C	VR36A	1.00	10103														X																
SA7-4CD	VR36ADUP	1.00	10121														X																
CCV	ACCV11	1.00	10134														X																
CCB	CCB10	1.00	10152														X																
SA7-4CS	VR36ASPK	1.00	10170														X																
SA7-5C	VR36B	1.00	10184														X																
SA7-6C	VR36C	1.00	10202														X																
SA7-6P-1(0 to 3	VR36D	1.00	10220														X																
SA7-6P-2(3 to 6	VR36E	1.00	10234														X																
SA7-6P-3(6 to 12	VR36F	1.00	10251														X																
SA7-6P-4(12 to 24	VR36G	1.00	10265														X																
SA7-Field Duplicat	VR36H	1.00	10282														X																
SA8-1C	VR36I	1.00	10300														X																
SA8-2C	VR36J	1.00	10314														X																
CCV	ACCV12	1.00	10331														X																
CCB	CCB11	1.00	10345														X																
SA8-2P-1(0 to 3	VR36K	1.00	10363														X																
SA8-2P-2(3 to 6	VR36L	1.00	10381														X																
ZZZZZZ	VR35MB1	1.00	10395																														
ZZZZZZ	VR35MB1SPK	1.00	10413																														
ZZZZZZ	VR35A	1.00	10431																														
ZZZZZZ	VR35ADUP	1.00	10444																														
ZZZZZZ	VR35ASPK	1.00	10462																														
ZZZZZZ	VR35B	1.00	10480																														
ZZZZZZ	VR35C	1.00	10493																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR36 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	VR35D	1.00	10511																														
CCV	ACCV13	1.00	10525														X																
CCB	CCB12	1.00	10543														X																

VR35 - 0017

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA8-2P-3(6 to 12	VR37A	12-22249	
SA8-2P-3(6 to 12D	VR37ADUP	12-22249	
SA8-2P-3(6 to 12S	VR37ASPK	12-22249	
SA8-2P-4(12 to 24	VR37B	12-22250	
PBS	VR37MB1	12-22250	
LCSS	VR37MB1SPK	12-22250	
SA8-3C	VR37C	12-22251	
SA8-4C	VR37D	12-22252	
SA8-5C	VR37E	12-22253	
SA8-6C	VR37F	12-22254	
SA8-7C	VR37G	12-22255	
SA8-8C	VR37H	12-22256	
SA8-Field Duplicat	VR37I	12-22257	
SA10-3C	VR37J	12-22258	
SA10-4C	VR37K	12-22259	
SA10-5C	VR37L	12-22260	
SA10-6C	VR37M	12-22261	
SA10-7C	VR37N	12-22262	
SA10-Field Duplica	VR37O	12-22263	

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: 11/20/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA8-2P-3(6 to 12"depth)
SAMPLE

Lab Sample ID: VR37A
LIMS ID: 12-22249
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 98.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.3	10	**11,500**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.085	0.2	**2.0**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**78.4**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.2**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.4	10	**1,810**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**8.4**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**3.1**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**10.0**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.7	10	**10,400**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.046	0.1	**7.9**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.2	10	**2,190**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.093	0.2	**176**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.011**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**9.1**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	41	120	**530**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.5	120	**120**	
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**15.7**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.33	4	**42**	

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: SA8-2P-4(12 to 24"depth)
SAMPLE

Lab Sample ID: VR37B
LIMS ID: 12-22250
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 99.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.5	10	**10,000**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**1.6**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**75.7**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.1**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.5	10	**1,790**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**9.9**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**3.2**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**9.2**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**10,900**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.047	0.1	**6.1**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**2,310**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.095	0.2	**157**	
CLP	11/15/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**8.2**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**560**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.5	120	**130**	
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**17.5**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.34	4	**34**	

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: SA8-3C
SAMPLE

Lab Sample ID: VR37C
LIMS ID: 12-22251
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.6	10	**8,730**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.085	0.2	**7.6**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**75.7**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**1.5**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**3,250**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**17.1**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**6.3**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**16.6**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**16,700**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.046	0.1	**62.5**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**4,250**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.097	0.2	**304**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.019**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**14.4**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**1,330**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0078	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**140**	
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**30.8**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.33	4	**112**	

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: SA8-4C
SAMPLE

Lab Sample ID: VR37D
LIMS ID: 12-22252
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 97.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.1	10	**8,590**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**11.7**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**161**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**6.5**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**3,540**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**10.6**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**3.5**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**15.0**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**11,200**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.24	0.5	**449**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**2,470**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**601**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.098**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**9.6**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**740**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	2.7	130	130	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**15.7**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.34	4	**297**	

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: SA8-5C
SAMPLE

Lab Sample ID: VR37E
LIMS ID: 12-22253
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 96.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.5	10	**7,360**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.2**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.087	0.2	**17.0**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**119**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**9.3**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.5	10	**3,810**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**11.7**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**3.9**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**29.1**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**10,700**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.24	0.5	**737**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**2,900**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.096	0.2	**619**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.157**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**10.1**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**790**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.6**	
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	2.5	120	120	U
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**18.7**	
3050B	11/15/12	200.8	11/20/12	**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

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA8-6C
SAMPLE

Lab Sample ID: VR37F
LIMS ID: 12-22254
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 98.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.4	10	**13,000**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.084	0.2	**17.3**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.14	0.7	**191**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**6.8**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.5	10	**3,070**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**14.5**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.031	0.2	**5.1**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**18.6**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**15,400**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.23	0.5	**308**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**3,210**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.095	0.2	**856**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.055**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.047	0.5	**14.1**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	41	120	**1,670**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.3**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.5	120	**130**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.016	0.2	**19.2**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.6	20	**370**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA8-7C
SAMPLE

Lab Sample ID: VR37G
LIMS ID: 12-22255
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 95.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.9	10	**16,000**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.7**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.087	0.2	**37.6**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**268**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**18.4**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**4,830**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**15.8**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**8.3**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**41.0**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**17,600**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.23	0.5	**1,070**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**4,150**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**796**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.169**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**17.6**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**1,480**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.6**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.7	130	**170**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.9**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**25.0**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**860**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA8-8C
SAMPLE

Lab Sample ID: VR37H
LIMS ID: 12-22256
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Percent Total Solids: 92.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.4	10	**15,000**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.014	0.2	**2.6**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.093	0.2	**45.1**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.16	0.8	**427**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.013	0.1	**18.5**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	5.0	10	**7,020**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.041	0.5	**11.9**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.034	0.2	**4.9**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.039	0.5	**49.4**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	2.0	10	**11,400**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.25	0.5	**1,440**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.7	10	**2,600**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.11	0.3	**918**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.287**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.053	0.5	**11.3**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	46	130	**1,410**	
3050B	11/15/12	200.8	11/19/12	**7782-49-2**	**Selenium**	0.11	0.5	**0.7**	
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0086	0.2	**1.2**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.8	130	**270**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0032	0.2	**1.0**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.018	0.2	**12.9**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.8	20	**1,210**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA8-Field Duplicate
SAMPLE

Lab Sample ID: VR37I
LIMS ID: 12-22257
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Percent Total Solids: 99.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.6	10	**9,120**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.087	0.2	**11.9**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**82.9**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.0**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**2,820**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**16.9**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.4**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**17.8**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**17,000**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.047	0.1	**129**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.4	10	**4,170**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.097	0.2	**376**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.033**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**14.7**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**1,390**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**120**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**29.7**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.34	4	**149**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA10-3C
SAMPLE

Lab Sample ID: VR37J
LIMS ID: 12-22258
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Percent Total Solids: 95.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.0	10	**18,100**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.8**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.089	0.2	**28.7**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**512**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**22.2**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**9,030**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.039	0.5	**15.0**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.033	0.2	**12.1**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.037	0.5	**41.8**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**24,400**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.24	0.5	**400**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**4,040**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,870**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.094**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.050	0.5	**57.2**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**1,600**	
3050B	11/15/12	200.8	11/19/12	**7782-49-2**	**Selenium**	0.10	0.5	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0082	0.2	**0.4**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.7	130	**200**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**21.4**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**830**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA10-4C
SAMPLE

Lab Sample ID: VR37K
LIMS ID: 12-22259
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Percent Total Solids: 89.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.8	10	**18,700**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.014	0.2	**1.5**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.097	0.2	**5.6**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.17	0.8	**132**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.020	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.013	0.1	**6.4**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	5.2	10	**21,100**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.042	0.6	**11.2**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.036	0.2	**2.9**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.040	0.6	**30.8**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	2.1	10	**9,150**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.052	0.1	**222**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.8	10	**2,510**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.11	0.3	**43.6**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.114**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.055	0.6	**13.1**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	48	140	**460**	
3050B	11/15/12	200.8	11/19/12	**7782-49-2**	**Selenium**	0.11	0.6	**5.2**	
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0089	0.2	**0.3**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.9	140	**230**	
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0033	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.019	0.2	**21.5**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.38	4	**165**	

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: SA10-5C
SAMPLE

Lab Sample ID: VR37L
LIMS ID: 12-22260
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Percent Total Solids: 95.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.2	10	**17,900**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.2**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.089	0.2	**11.5**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.16	0.8	**229**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.5**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.9	10	**10,700**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.039	0.5	**26.2**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.033	0.2	**8.6**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.037	0.5	**20.7**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**21,100**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.048	0.1	**200**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.6	10	**6,080**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**830**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.083**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.050	0.5	**24.9**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	45	130	**1,860**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0082	0.2	**0.2**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.7	130	**250**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**25.6**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.35	4	**250**	

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: SA10-6C
SAMPLE

Lab Sample ID: VR37M
LIMS ID: 12-22261
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Percent Total Solids: 94.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.9	10	**23,700**	
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**16.4**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.8	**427**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.8**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.1**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.8	10	**7,650**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**20.4**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**10.6**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**26.5**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**23,000**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.047	0.1	**162**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.5	10	**5,170**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,190**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.077**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**25.5**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	44	130	**1,660**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.2**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.7	130	**160**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.3**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**26.7**	
3050B	11/15/12	200.8	11/19/12	**7440-66-6**	**Zinc**	0.34	4	**267**	

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: SA10-7C
SAMPLE

Lab Sample ID: VR37N
LIMS ID: 12-22262
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Percent Total Solids: 95.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	9.2	10	**19,500**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.088	0.2	**39.3**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.16	0.8	**502**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**9.0**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.9	10	**9,480**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.038	0.5	**20.6**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**12.4**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.036	0.5	**38.8**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.9	10	**29,000**	
3050B	11/15/12	200.8	11/19/12	**7439-92-1**	**Lead**	0.047	0.1	**246**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.6	10	**4,360**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.10	0.3	**3,810**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.088**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.049	0.5	**40.9**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	45	130	**1,840**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.3**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.7	130	**200**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**22.3**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**520**	

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-Field Duplicate
SAMPLE

Lab Sample ID: VR370
LIMS ID: 12-22263
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Percent Total Solids: 96.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/15/12	6010C	11/19/12	**7429-90-5**	**Aluminum**	8.6	10	**19,000**	
3050B	11/15/12	200.8	11/19/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/15/12	200.8	11/19/12	**7440-38-2**	**Arsenic**	0.086	0.2	**30.9**	
3050B	11/15/12	6010C	11/19/12	**7440-39-3**	**Barium**	0.15	0.7	**441**	
3050B	11/15/12	200.8	11/19/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/15/12	200.8	11/19/12	**7440-43-9**	**Cadmium**	0.012	0.1	**19.8**	
3050B	11/15/12	6010C	11/19/12	**7440-70-2**	**Calcium**	4.6	10	**7,390**	
3050B	11/15/12	200.8	11/19/12	**7440-47-3**	**Chromium**	0.037	0.5	**14.9**	
3050B	11/15/12	200.8	11/19/12	**7440-48-4**	**Cobalt**	0.032	0.2	**10.6**	
3050B	11/15/12	200.8	11/19/12	**7440-50-8**	**Copper**	0.035	0.5	**39.2**	
3050B	11/15/12	6010C	11/19/12	**7439-89-6**	**Iron**	1.8	10	**25,200**	
3050B	11/15/12	200.8	11/20/12	**7439-92-1**	**Lead**	0.23	0.5	**328**	
3050B	11/15/12	6010C	11/19/12	**7439-95-4**	**Magnesium**	3.3	10	**3,890**	
3050B	11/15/12	6010C	11/19/12	**7439-96-5**	**Manganese**	0.097	0.2	**2,340**	
CLP	11/15/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.060**	
3050B	11/15/12	200.8	11/19/12	**7440-02-0**	**Nickel**	0.048	0.5	**54.8**	
3050B	11/15/12	6010C	11/19/12	**7440-09-7**	**Potassium**	42	120	**1,430**	
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.4**	
3050B	11/15/12	6010C	11/19/12	**7440-23-5**	**Sodium**	2.6	120	**190**	
3050B	11/15/12	200.8	11/19/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.4**	
3050B	11/15/12	200.8	11/19/12	**7440-62-2**	**Vanadium**	0.017	0.2	**20.8**	
3050B	11/15/12	200.8	11/20/12	**7440-66-6**	**Zinc**	1.7	20	**810**	

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: SA8-2P-3(6 to 12"depth)
MATRIX SPIKE

Lab Sample ID: VR37A
LIMS ID: 12-22249
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	11,500	12,000	186	269%	H
Antimony	200.8	0.2 U	1.3	24.2	5.4%	N
Arsenic	200.8	2.0	27.2	24.2	104%	
Barium	6010C	78.4	259	186	97.1%	
Beryllium	200.8	0.4	24.9	24.2	101%	
Cadmium	200.8	0.2	25.0	24.2	102%	
Calcium	6010C	1,810	2,720	930	97.8%	
Chromium	200.8	8.4	32.7	24.2	100%	
Cobalt	200.8	3.1	25.8	24.2	93.8%	
Copper	200.8	10.0	34.4	24.2	101%	
Iron	6010C	10,400	11,000	186	323%	H
Lead	200.8	7.9	32.5	24.2	102%	
Magnesium	6010C	2,190	3,270	930	116%	
Manganese	6010C	176	223	46.5	101%	
Mercury	7471A	0.011	0.079	0.0703	96.7%	
Nickel	200.8	9.1	33.5	24.2	101%	
Potassium	6010C	530	1,400	930	93.5%	
Selenium	200.8	0.5 U	74.2	77.5	95.7%	
Silver	200.8	0.2 U	22.1	24.2	91.3%	
Sodium	6010C	120	1,010	930	95.7%	
Thallium	200.8	0.2 U	24.1	24.2	99.6%	
Vanadium	200.8	15.7	39.7	24.2	99.2%	
Zinc	200.8	42	121	77.5	102%	

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
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Sample ID: SA8-2P-3(6 to 12"depth)
DUPLICATE

Lab Sample ID: VR37A
LIMS ID: 12-22249
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	11,500	11,900	3.4%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	2.0	2.1	4.9%	+/- 20%	
Barium	6010C	78.4	79.8	1.8%	+/- 20%	
Beryllium	200.8	0.4	0.3	28.6%	+/- 0.2	L
Cadmium	200.8	0.2	0.2	0.0%	+/- 0.1	L
Calcium	6010C	1,810	1,770	2.2%	+/- 20%	
Chromium	200.8	8.4	9.5	12.3%	+/- 20%	
Cobalt	200.8	3.1	3.0	3.3%	+/- 20%	
Copper	200.8	10.0	10.0	0.0%	+/- 20%	
Iron	6010C	10,400	10,900	4.7%	+/- 20%	
Lead	200.8	7.9	7.7	2.6%	+/- 20%	
Magnesium	6010C	2,190	2,270	3.6%	+/- 20%	
Manganese	6010C	176	187	6.1%	+/- 20%	
Mercury	7471A	0.011	0.011	0.0%	+/- 0.007	L
Nickel	200.8	9.1	8.9	2.2%	+/- 20%	
Potassium	6010C	530	520	1.9%	+/- 120	L
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Sodium	6010C	120	120 U	0.0%	+/- 120	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Vanadium	200.8	15.7	16.3	3.8%	+/- 20%	
Zinc	200.8	42	41	2.4%	+/- 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
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Sample ID: LAB CONTROL

Lab Sample ID: VR37LCS
LIMS ID: 12-22250
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-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	193	200	96.5%	
Antimony	200.8	24.0	25.0	96.0%	
Arsenic	200.8	25.9	25.0	104%	
Barium	6010C	205	200	102%	
Beryllium	200.8	24.0	25.0	96.0%	
Cadmium	200.8	24.1	25.0	96.4%	
Calcium	6010C	952	1000	95.2%	
Chromium	200.8	24.4	25.0	97.6%	
Cobalt	200.8	24.0	25.0	96.0%	
Copper	200.8	24.9	25.0	99.6%	
Iron	6010C	191	200	95.5%	
Lead	200.8	25.3	25.0	101%	
Magnesium	6010C	986	1000	98.6%	
Manganese	6010C	47.8	50.0	95.6%	
Mercury	7471A	0.124	0.143	86.7%	
Nickel	200.8	24.5	25.0	98.0%	
Potassium	6010C	950	1000	95.0%	
Selenium	200.8	75.2	80.0	94.0%	
Silver	200.8	23.4	25.0	93.6%	
Sodium	6010C	970	1000	97.0%	
Thallium	200.8	25.1	25.0	100%	
Vanadium	200.8	23.8	25.0	95.2%	
Zinc	200.8	80	80	100%	

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: VR37MB
LIMS ID: 12-22250
Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

QC Report No: VR37-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	11/15/12	6010C	11/19/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/15/12	200.8	11/19/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/15/12	200.8	11/19/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/15/12	6010C	11/19/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/15/12	200.8	11/19/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/15/12	6010C	11/19/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/15/12	200.8	11/19/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/15/12	6010C	11/19/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/15/12	6010C	11/19/12	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	11/15/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/15/12	200.8	11/19/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/15/12	6010C	11/19/12	7440-09-7	Potassium	17	50	50	U
3050B	11/15/12	200.8	11/19/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/15/12	200.8	11/19/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/15/12	6010C	11/19/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/15/12	200.8	11/19/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/15/12	200.8	11/19/12	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: VR37

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP111971	2000.0	2029.72	**101.5**	2000.0	2006.35	**100.3**	1980.16	**99.0**	1980.99	**99.0**	1958.39	**97.9**	1953.91	**97.7**
Antimony	SB	PMS	MS111911	50.0	50.59	**101.2**	50.0	49.90	**99.8**	50.01	**100.0**	50.83	**101.7**	51.09	**102.2**	50.50	**101.0**
Arsenic	AS	PMS	MS111911	50.0	53.30	**106.6**	50.0	49.24	**98.5**	49.25	**98.5**	50.44	**100.9**	50.60	**101.2**	50.16	**100.3**
Barium	BA	ICP	IP111971	1000.0	1020.70	**102.1**	1000.0	1006.35	**100.6**	1000.73	**100.1**	989.79	**99.0**	965.81	**96.6**	968.28	**96.8**
Beryllium	BE	PMS	MS111911	50.0	51.12	**102.2**	50.0	49.29	**98.6**	48.71	**97.4**	49.18	**98.4**	50.15	**100.3**	50.54	**101.1**
Cadmium	CD	PMS	MS111911	50.0	50.82	**101.6**	50.0	50.37	**100.7**	50.61	**101.2**	50.69	**101.4**	50.59	**101.2**	50.74	**101.5**
Calcium	CA	ICP	IP111971	2000.0	1944.24	**97.2**	2000.0	2038.09	**101.9**	2019.70	**101.0**	2067.44	**103.4**	1994.66	**99.7**	1995.68	**99.8**
Chromium	CR	PMS	MS111911	50.0	51.49	**103.0**	50.0	50.49	**101.0**	50.58	**101.2**	49.72	**99.4**	50.40	**100.8**	51.53	**103.1**
Cobalt	CO	PMS	MS111911	50.0	50.78	**101.6**	50.0	50.10	**100.2**	49.70	**99.4**	50.57	**101.1**	49.34	**98.7**	49.55	**99.1**
Copper	CU	PMS	MS111911	50.0	52.43	**104.9**	50.0	49.56	**99.1**	49.32	**98.6**	49.10	**98.2**	50.49	**101.0**	49.77	**99.5**
Iron	FE	ICP	IP111971	2000.0	2055.51	**102.8**	2000.0	2061.92	**103.1**	2036.61	**101.8**	2069.18	**103.5**	2057.67	**102.9**	2037.40	**101.9**
Lead	PB	PMS	MS111911	50.0	51.58	**103.2**	50.0	49.92	**99.8**	49.22	**98.4**	49.54	**99.1**	50.18	**100.4**	49.75	**99.5**
Magnesium	MG	ICP	IP111971	2000.0	2028.60	**101.4**	2000.0	2013.75	**100.7**	1991.31	**99.6**	2003.63	**100.2**	1961.53	**98.1**	1950.43	**97.5**
Manganese	MN	ICP	IP111971	1000.0	995.60	**99.6**	1000.0	1035.71	**103.6**	1025.82	**102.6**	1040.95	**104.1**	1028.81	**102.9**	1011.71	**101.2**
Mercury	HG	CVA	HG111701	8.0	7.26	**90.8**	4.0	3.69	**92.3**	3.65	**91.3**	1.76	**44.0**	3.63	**90.8**	3.59	**89.8**
Nickel	NI	PMS	MS111911	50.0	52.75	**105.5**	50.0	50.35	**100.7**	49.29	**98.6**	50.48	**101.0**	50.30	**100.6**	50.24	**100.5**
Potassium	K	ICP	IP111971	20000.0	20061.83	**100.3**	20000.0	19907.72	**99.5**	19674.12	**98.4**	20091.98	**100.5**	19700.75	**98.5**	19363.25	**96.8**
Selenium	SE	PMS	MS111911	80.0	80.66	**100.8**	50.0	49.80	**99.6**	48.47	**96.9**	49.75	**99.5**	50.33	**100.7**	50.53	**101.1**
Silver	AG	PMS	MS111911	50.0	51.46	**102.9**	50.0	48.46	**96.9**	47.74	**95.5**	48.96	**97.9**	49.20	**98.4**	49.31	**98.6**
Sodium	NA	ICP	IP111971	50000.0	52246.58	**104.5**	50000.0	51334.92	**102.7**	50887.90	**101.8**	51758.68	**103.5**	51022.02	**102.0**	49343.22	**98.7**
Thallium	TL	PMS	MS111911	50.0	50.95	**101.9**	50.0	49.67	**99.3**	49.49	**99.0**	49.20	**98.4**	49.99	**100.0**	48.90	**97.8**
Vanadium	V	PMS	MS111911	50.0	51.44	**102.9**	50.0	49.50	**99.0**	49.93	**99.9**	49.04	**98.1**	49.83	**99.7**	50.63	**101.3**
Zinc	ZN	PMS	MS111911	50.0	51.46	**102.9**	50.0	50.59	**101.2**	50.23	**100.5**	49.58	**99.2**	50.09	**100.2**	49.92	**99.8**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

UNITS:ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP111971	2000.0	1926.24	**96.3**	1937.58	**96.9**	1945.10	**97.3**	1947.17	**97.4**	1947.79	**97.4**	1969.56	**98.5**
Antimony	SB	PMS	MS111911	50.0	50.92	**101.8**	49.87	**99.7**	50.14	**100.3**	50.37	**100.7**	50.91	**101.8**	49.97	**99.9**
Arsenic	AS	PMS	MS111911	50.0	49.87	**99.7**	50.20	**100.4**	49.20	**98.4**	48.44	**96.9**	49.39	**98.8**	49.69	**99.4**
Barium	BA	ICP	IP111971	1000.0	982.42	**98.2**	987.75	**98.8**	994.25	**99.4**	995.17	**99.5**	992.05	**99.2**	1005.19	**100.5**
Beryllium	BE	PMS	MS111911	50.0	51.24	**102.5**	50.19	**100.4**	50.21	**100.4**	50.26	**100.5**	50.39	**100.8**	50.03	**100.1**
Cadmium	CD	PMS	MS111911	50.0	50.39	**100.8**	50.23	**100.5**	49.55	**99.1**	50.36	**100.7**	51.23	**102.5**	49.23	**98.5**
Calcium	CA	ICP	IP111971	2000.0	1972.78	**98.6**	1898.29	**94.9**	1981.89	**99.1**	1887.79	**94.4**	1864.84	**93.2**	1891.51	**94.6**
Chromium	CR	PMS	MS111911	50.0	49.65	**99.3**	50.29	**100.6**	49.72	**99.4**	49.65	**99.3**	50.12	**100.2**	49.27	**98.5**
Cobalt	CO	PMS	MS111911	50.0	48.70	**97.4**	50.17	**100.3**	48.34	**96.7**	49.07	**98.1**	49.46	**98.9**	48.05	**96.1**
Copper	CU	PMS	MS111911	50.0	49.56	**99.1**	50.27	**100.5**	49.17	**98.3**	48.50	**97.0**	47.91	**95.8**	48.59	**97.2**
Iron	FE	ICP	IP111971	2000.0	1950.58	**97.5**	1976.71	**98.8**	1957.96	**97.9**	1968.56	**98.4**	1951.87	**97.6**	1985.46	**99.3**
Lead	PB	PMS	MS111911	50.0	50.20	**100.4**	50.48	**101.0**	49.03	**98.1**	49.25	**98.5**	50.10	**100.2**	49.41	**98.8**
Magnesium	MG	ICP	IP111971	2000.0	1927.50	**96.4**	1949.26	**97.5**	1945.12	**97.3**	1944.19	**97.2**	1929.74	**96.5**	1968.26	**98.4**
Manganese	MN	ICP	IP111971	1000.0	987.48	**98.7**	952.36	**95.2**	950.38	**95.0**	954.90	**95.5**	941.58	**94.2**	940.03	**94.0**
Mercury	HG	CVA	HG111701	4.0	3.60	**90.0**	3.64	**91.0**								
Nickel	NI	PMS	MS111911	50.0	49.89	**99.8**	50.16	**100.3**	48.75	**97.5**	48.51	**97.0**	49.11	**98.2**	49.41	**98.8**
Potassium	K	ICP	IP111971	20000.0	19390.61	**97.0**	19208.05	**96.0**	19312.97	**96.6**	19363.29	**96.8**	19289.76	**96.4**	19183.86	**95.9**
Selenium	SE	PMS	MS111911	50.0	50.03	**100.1**	49.16	**98.3**	48.18	**96.4**	47.36	**94.7**	48.54	**97.1**	48.81	**97.6**
Silver	AG	PMS	MS111911	50.0	48.92	**97.8**	47.97	**95.9**	47.38	**94.8**	46.71	**93.4**	46.61	**93.2**	46.25	**92.5**
Sodium	NA	ICP	IP111971	50000.0	49846.59	**99.7**	49505.14	**99.0**	49860.03	**99.7**	50515.18	**101.0**	49655.44	**99.3**	49326.18	**98.7**
Thallium	TL	PMS	MS111911	50.0	50.17	**100.3**	50.23	**100.5**	48.66	**97.3**	49.27	**98.5**	49.09	**98.2**	48.99	**98.0**
Vanadium	V	PMS	MS111911	50.0	49.71	**99.4**	50.53	**101.1**	49.58	**99.2**	48.94	**97.9**	49.64	**99.3**	47.88	**95.8**
Zinc	ZN	PMS	MS111911	50.0	49.81	**99.6**	49.83	**99.7**	49.82	**99.6**	48.11	**96.2**	49.28	**98.6**	49.81	**99.6**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Aluminum	AL	ICP	IP111971	2000.0	1940.74	**97.0**	1973.40	**98.7**	1945.34	**97.3**						
Antimony	SB	PMS	MS111911	50.0	50.90	**101.8**										
Arsenic	AS	PMS	MS111911	50.0	49.10	**98.2**										
Barium	BA	ICP	IP111971	1000.0	1023.32	**102.3**	1027.31	**102.7**	1034.23	**103.4**						
Beryllium	BE	PMS	MS111911	50.0	50.55	**101.1**										
Cadmium	CD	PMS	MS111911	50.0	49.57	**99.1**										
Calcium	CA	ICP	IP111971	2000.0	1878.90	**93.9**	1903.03	**95.2**	1904.76	**95.2**						
Chromium	CR	PMS	MS111911	50.0	50.08	**100.2**										
Cobalt	CO	PMS	MS111911	50.0	47.64	**95.3**										
Copper	CU	PMS	MS111911	50.0	47.79	**95.6**										
Iron	FE	ICP	IP111971	2000.0	1919.26	**96.0**	1961.75	**98.1**	1931.52	**96.6**						
Lead	PB	PMS	MS111911	50.0	49.52	**99.0**										
Magnesium	MG	ICP	IP111971	2000.0	1951.27	**97.6**	1971.21	**98.6**	1965.05	**98.3**						
Manganese	MN	ICP	IP111971	1000.0	930.24	**93.0**	936.09	**93.6**	925.73	**92.6**						
Mercury	HG	CVA	HG111701	4.0												
Nickel	NI	PMS	MS111911	50.0	48.41	**96.8**										
Potassium	K	ICP	IP111971	20000.0	19294.44	**96.5**	19274.84	**96.4**	19123.02	**95.6**						
Selenium	SE	PMS	MS111911	50.0	48.36	**96.7**										
Silver	AG	PMS	MS111911	50.0	47.07	**94.1**										
Sodium	NA	ICP	IP111971	50000.0	49723.13	**99.4**	49724.37	**99.4**	49378.83	**98.8**						
Thallium	TL	PMS	MS111911	50.0	48.74	**97.5**										
Vanadium	V	PMS	MS111911	50.0	48.28	**96.6**										
Zinc	ZN	PMS	MS111911	50.0	47.65	**95.3**										

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VR37

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Lead	PB	PMS	MS112011	50.0	50.07	**100.1**	50.0	48.69	**97.4**	48.84	**97.7**	48.49	**97.0**	49.66	**99.3**	49.03	**98.1**
Zinc	ZN	PMS	MS112011	50.0	50.67	**101.3**	50.0	51.76	**103.5**	50.94	**101.9**	49.61	**99.2**	50.41	**100.8**	49.23	**98.5**

VR37 SDG

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: VR37

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	IP111971	50.0	51.13	**102.3**	49.69	**99.4**	53.98	**108.0**	54.95	**109.9**				
Antimony	SB	PMS	MS111911	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS111911	0.2	0.20	**100.0**										
Barium	BA	ICP	IP111971	3.0	3.03	**101.0**	2.30	**76.7**	2.59	**86.3**	2.66	**88.7**				
Beryllium	BE	PMS	MS111911	0.2	0.20	**100.0**										
Cadmium	CD	PMS	MS111911	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP111971	50.0	49.82	**99.6**	48.37	**96.7**	51.24	**102.5**	49.87	**99.7**				
Chromium	CR	PMS	MS111911	0.5	0.58	**116.0**										
Cobalt	CO	PMS	MS111911	0.2	0.21	**105.0**										
Copper	CU	PMS	MS111911	0.5	0.53	**106.0**										
Iron	FE	ICP	IP111971	50.0	54.10	**108.2**	53.38	**106.8**	59.70	**119.4**	60.14	**120.3**				
Lead	PB	PMS	MS111911	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP111971	50.0	48.10	**96.2**	38.39	**76.8**	42.49	**85.0**	45.34	**90.7**				
Manganese	MN	ICP	IP111971	1.0	1.26	**126.0**	1.04	**104.0**	1.30	**130.0**	1.71	**171.0**				
Mercury	HG	CVA	HG111701	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS111911	0.5	0.51	**102.0**										
Potassium	K	ICP	IP111971	500.0	473.53	**94.7**	457.79	**91.6**	438.34	**87.7**	450.02	**90.0**				
Selenium	SE	PMS	MS111911	0.5	0.57	**114.0**										
Silver	AG	PMS	MS111911	0.2	0.21	**105.0**										
Sodium	NA	ICP	IP111971	500.0	495.62	**99.1**	485.32	**97.1**	492.87	**98.6**	481.01	**96.2**				
Thallium	TL	PMS	MS111911	0.2	0.21	**105.0**										
Vanadium	V	PMS	MS111911	0.2	0.24	**120.0**										
Zinc	ZN	PMS	MS111911	4.0	4.12	**103.0**										

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: VR37

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	MS112011		0.1	0.11	**110.0**										
Zinc	ZN	PMS	MS112011		4.0	4.55	**113.8**										

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: VR37

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP111971	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	IP111971	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	IP111971	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	HG111701	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	MS111911	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	IP111971	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	MS111911	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	MS111911	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: VR37

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP111971	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	MS111911	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	IP111971	5000.0	50.0	50.0	U	50.0	U	50.5	B	50.0	U	50.0	U	50.0	U
Chromium	CR	PMS	MS111911	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	IP111971	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	IP111971	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	HG111701	0.2	0.1	0.1	U										
Nickel	NI	PMS	MS111911	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	IP111971	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	MS111911	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	MS111911	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	IP111971	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	MS111911	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	MS111911	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	MS111911	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: VR37

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Aluminum	AL	ICP	IP111971	200.0	50.0	50.0	U	50.0	U	50.0	U						
Antimony	SB	PMS	MS111911	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS111911	10.0	0.2	0.2	U										
Barium	BA	ICP	IP111971	200.0	3.0	3.0	U	3.0	U	3.0	U						
Beryllium	BE	PMS	MS111911	5.0	0.2	0.2	U										
Cadmium	CD	PMS	MS111911	5.0	0.1	0.1	U										
Calcium	CA	ICP	IP111971	5000.0	50.0	50.0	U	50.0	U	50.0	U						
Chromium	CR	PMS	MS111911	10.0	0.5	0.5	U										
Cobalt	CO	PMS	MS111911	50.0	0.2	0.2	U										
Copper	CU	PMS	MS111911	25.0	0.5	0.5	U										
Iron	FE	ICP	IP111971	100.0	50.0	50.0	U	50.0	U	50.0	U						
Lead	PB	PMS	MS111911	3.0	0.1	0.1	U										
Magnesium	MG	ICP	IP111971	5000.0	50.0	50.0	U	50.0	U	50.0	U						
Manganese	MN	ICP	IP111971	15.0	1.0	1.0	U	1.5	B	1.0	U						
Mercury	HG	CVA	HG111701	0.2	0.1												
Nickel	NI	PMS	MS111911	40.0	0.5	0.5	U										
Potassium	K	ICP	IP111971	5000.0	500.0	500.0	U	500.0	U	500.0	U						
Selenium	SE	PMS	MS111911	5.0	0.5	0.5	U										
Silver	AG	PMS	MS111911	10.0	0.2	0.2	U										
Sodium	NA	ICP	IP111971	5000.0	500.0	500.0	U	500.0	U	500.0	U						
Thallium	TL	PMS	MS111911	10.0	0.2	0.2	U										
Vanadium	V	PMS	MS111911	50.0	0.2	0.2	U										
Zinc	ZN	PMS	MS111911	20.0	4.0	4.0	U										

VR37 : 09155

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Lead	PB	PMS	MS112011	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Zinc	ZN	PMS	MS112011	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

VR36:00107

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP111971

SDG: VR37

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	198717.9	197872.1	**98.9**	194148.8	192173.2	**96.1**	190633.4	189329.2	**94.7**
Antimony		1000	7.8	1015.0	**101.5**	7.0	989.7	**99.0**	1.1	967.2	**96.7**
Arsenic		1000	16.2	1045.4	**104.5**	16.1	1022.4	**102.2**	17.5	996.6	**99.7**
Barium		1000	-1.3	1004.2	**100.4**	-1.8	963.2	**96.3**	-1.0	988.0	**98.8**
Beryllium		1000	0.1	1002.5	**100.3**	0.0	996.3	**99.6**	0.0	958.3	**95.8**
Boron			0.0	-1.1		-2.0	-1.8		-3.0	-2.2	
Cadmium		1000	-0.1	1034.3	**103.4**	-0.6	1009.5	**101.0**	-0.3	976.0	**97.6**
Calcium	100000	100000	98160.2	99077.3	**99.1**	96458.4	97098.0	**97.1**	94915.9	95918.1	**95.9**
Chromium		1000	-0.3	1022.0	**102.2**	1.5	996.8	**99.7**	1.8	985.3	**98.5**
Cobalt		1000	-0.5	999.4	**99.9**	-0.5	949.3	**94.9**	-0.5	939.3	**93.9**
Copper		1000	-0.7	1028.1	**102.8**	-1.2	1004.4	**100.4**	-0.7	993.2	**99.3**
Iron	200000	200000	195077.3	196698.8	**98.3**	194089.7	194452.0	**97.2**	183591.0	185438.8	**92.7**
Lead		1000	2.3	992.7	**99.3**	1.7	969.7	**97.0**	0.4	947.6	**94.8**
Magnesium	100000	100000	102497.2	99068.4	**99.1**	99965.8	96590.8	**96.6**	98454.6	95101.3	**95.1**
Manganese		1000	1.2	981.8	**98.2**	0.9	968.1	**96.8**	1.0	925.7	**92.6**
Molybdenum			1.4	1.3		0.9	1.2		0.8	1.3	
Nickel		1000	0.9	979.9	**98.0**	1.8	956.6	**95.7**	1.6	957.6	**95.8**
Potassium			4.3	-55.6		-19.3	-77.0		-27.7	-71.0	
Selenium		1000	13.5	1028.1	**102.8**	9.1	1012.1	**101.2**	11.2	978.9	**97.9**
Silicon			-1.6	1.1		-2.3	-3.4		-2.4	0.6	
Silver		1000	-1.1	1011.9	**101.2**	-1.4	980.0	**98.0**	-1.0	982.8	**98.3**
Sodium			16.8	31.1		24.4	36.7		29.1	36.2	
Strontium			4.1	4.0		3.9	3.9		3.9	3.8	
Thallium		1000	-5.6	940.0	**94.0**	-5.7	916.8	**91.7**	-6.5	917.0	**91.7**
Tin			-5.6	-5.7		-4.3	-4.4		-5.7	-5.4	
Titanium			1.3	0.9		1.1	0.6		1.1	0.7	
Vanadium		1000	6.2	983.4	**98.3**	6.5	958.1	**95.8**	4.7	947.8	**94.8**
Zinc		1000	3.7	984.5	**98.5**	3.3	965.7	**96.6**	3.6	947.5	**94.8**

VR37 0156

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP111971

SDG: VR37

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	191510.6	187031.3	**93.5**						
Antimony		1000	2.1	967.2	**96.7**						
Arsenic		1000	17.2	997.6	**99.8**						
Barium		1000	-1.1	1015.7	**101.6**						
Beryllium		1000	0.1	934.2	**93.4**						
Boron			-5.7	-3.2							
Cadmium		1000	0.0	972.6	**97.3**						
Calcium	100000	100000	96398.4	95602.2	**95.6**						
Chromium		1000	1.2	986.7	**98.7**						
Cobalt		1000	-0.6	955.4	**95.5**						
Copper		1000	-0.1	1014.2	**101.4**						
Iron	200000	200000	182228.5	179172.8	**89.6**						
Lead		1000	0.5	948.6	**94.9**						
Magnesium	100000	100000	99532.2	94643.8	**94.6**						
Manganese		1000	1.3	897.3	**89.7**						
Molybdenum			1.2	1.2							
Nickel		1000	2.0	972.2	**97.2**						
Potassium			-11.2	-82.6							
Selenium		1000	16.2	980.9	**98.1**						
Silicon			0.1	1.2							
Silver		1000	-0.9	1024.1	**102.4**						
Sodium			31.5	36.4							
Strontium			3.9	3.8							
Thallium		1000	-3.6	927.5	**92.8**						
Tin			-7.1	-6.9							
Titanium			1.5	0.6							
Vanadium		1000	3.4	972.1	**97.2**						
Zinc		1000	3.8	953.8	**95.4**						

VR37 SDG

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

ICS SOURCE: I.V.

RUNID: MS111911

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	0.0	19.3	**96.5**						
Barium			0.1	0.1							
Cadmium		20	0.1	19.6	**98.0**						
Chromium		20	0.6	20.8	**104.0**						
Cobalt		20	0.0	19.4	**97.0**						
Copper		20	1.2	20.8	**104.0**						
Manganese		20	0.1	19.0	**95.0**						
Molybdenum	400	400	426.2	433.4	**108.4**						
Nickel		20	0.4	20.6	**103.0**						
Selenium			-0.3	-0.3							
Silver		20	0.0	20.4	**102.0**						
Thorium			0.3	0.1							
Vanadium			0.2	0.1							
Zinc		20	1.3	19.9	**99.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS112011

SDG: VR37

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	20000	20000	19829.5	20042.9	**100.2**						
Antimony			0.1	0.1							
Arsenic		20	0.3	19.3	**96.5**						
Barium			0.1	0.1							
Cadmium		20	0.1	20.0	**100.0**						
Chromium		20	0.6	20.4	**102.0**						
Cobalt		20	0.0	19.7	**98.5**						
Copper		20	1.2	21.6	**108.0**						
Iron	20000	20000	19313.8	19100.4	**95.5**						
Manganese		20	0.1	18.7	**93.5**						
Molybdenum	400	400	409.5	427.6	**106.9**						
Nickel		20	0.4	21.0	**105.0**						
Selenium			-0.3	-0.4							
Silver		20	0.0	21.1	**105.5**						
Thorium			0.3	0.1							
Vanadium			0.2	0.2							
Zinc		20	1.8	19.9	**99.5**						

VR37 SDG : 1 of 1

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR37

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA8-2P-3(6 to 12A	VR37APOST	MS111911	500.50	B	1000.00	U	500	Soil	**100.1**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VR37

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	49154.98		52325.70		6.5	
Barium	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	336.38		362.20	B	7.7	
Calcium	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	7781.83		8263.45	B	6.2	
Iron	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	44527.19		47751.70		7.2	
Magnesium	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	9390.68		10658.75	B	13.5	E
Manganese	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	752.71		811.20		7.8	
Potassium	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	2253.47	B	2500.00	U	100.0	
Sodium	SA8-2P-3(6 to 12L	VR37A-L	Soil	IP111971	529.35	B	2500.00	U	100.0	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VR37

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	0.02	U	0.05	B		
Arsenic	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	2.06	B	2.30	B	11.7	
Beryllium	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	0.37	B	0.35	B	5.4	
Cadmium	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	0.23	B	0.30	B	30.4	
Chromium	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	8.59	B	9.15	B	6.5	
Cobalt	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	3.21	B	3.40	B	5.9	
Copper	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	10.25	B	10.60	B	3.4	
Lead	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	8.15		8.25	B	1.2	
Nickel	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	9.36	B	9.65	B	3.1	
Selenium	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	0.00	U	-0.20	B		
Silver	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	0.09	U	0.10	B		
Thallium	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	0.09	U	0.10	B		
Vanadium	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	16.10	B	16.45	B	2.2	
Zinc	SA8-2P-3(6 to 12L	VR37A-L	Soil	MS111911	43.41		44.25	B	1.9	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37 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: VR37

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

VR37-SDG.xls 5/15/2013

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VR37

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: VR37

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/15/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA8-2P-3(6 to 12	VR37A	1.085	0.0	50.0
SA8-2P-3(6 to 12D	VR37ADUP	1.085	0.0	50.0
SA8-2P-3(6 to 12S	VR37ASPK	1.088	0.0	50.0
SA8-2P-4(12 to 24	VR37B	1.057	0.0	50.0
SA8-3C	VR37C	1.043	0.0	50.0
SA8-4C	VR37D	1.005	0.0	50.0
SA8-5C	VR37E	1.078	0.0	50.0
SA8-6C	VR37F	1.071	0.0	50.0
SA8-7C	VR37G	1.037	0.0	50.0
SA8-8C	VR37H	1.012	0.0	50.0
SA8-Field Duplicat	VR37I	1.036	0.0	50.0
SA10-3C	VR37J	1.030	0.0	50.0
SA10-4C	VR37K	1.009	0.0	50.0
SA10-5C	VR37L	1.017	0.0	50.0
SA10-6C	VR37M	1.048	0.0	50.0
PBS	VR37MB1	1.000	0.0	50.0
LCSS	VR37MB1SPK	1.000	0.0	50.0
SA10-7C	VR37N	1.013	0.0	50.0
SA10-Field Duplica	VR37O	1.072	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/15/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA8-2P-3(6 to 12	VR37A	1.039	0.0	50.0
SA8-2P-3(6 to 12D	VR37ADUP	1.036	0.0	50.0
SA8-2P-3(6 to 12S	VR37ASPK	1.044	0.0	50.0
SA8-2P-4(12 to 24	VR37B	1.001	0.0	50.0
SA8-3C	VR37C	1.033	0.0	50.0
SA8-4C	VR37D	1.017	0.0	50.0
SA8-5C	VR37E	1.032	0.0	50.0
SA8-6C	VR37F	1.057	0.0	50.0
SA8-7C	VR37G	1.045	0.0	50.0
SA8-8C	VR37H	1.003	0.0	50.0
SA8-Field Duplicat	VR37I	1.006	0.0	50.0
SA10-3C	VR37J	1.021	0.0	50.0
SA10-4C	VR37K	1.004	0.0	50.0
SA10-5C	VR37L	1.030	0.0	50.0
SA10-6C	VR37M	1.046	0.0	50.0
PBS	VR37MB1	1.000	0.0	50.0
LCSS	VR37MB1SPK	1.000	0.0	50.0
SA10-7C	VR37N	1.041	0.0	50.0
SA10-Field Duplica	VR37O	1.054	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/15/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA8-2P-3(6 to 12	VR37A	0.717	0.0	50.0
SA8-2P-3(6 to 12D	VR37ADUP	0.715	0.0	50.0
SA8-2P-3(6 to 12S	VR37ASPK	0.720	0.0	50.0
SA8-2P-4(12 to 24	VR37B	0.708	0.0	50.0
SA8-3C	VR37C	0.734	0.0	50.0
SA8-4C	VR37D	0.741	0.0	50.0
SA8-5C	VR37E	0.734	0.0	50.0
SA8-6C	VR37F	0.732	0.0	50.0
SA8-7C	VR37G	0.736	0.0	50.0
SA8-8C	VR37H	0.727	0.0	50.0
SA8-Field Duplicat	VR37I	0.737	0.0	50.0
SA10-3C	VR37J	0.709	0.0	50.0
SA10-4C	VR37K	0.740	0.0	50.0
SA10-5C	VR37L	0.736	0.0	50.0
SA10-6C	VR37M	0.721	0.0	50.0
PBS	VR37MB1	0.700	0.0	50.0
LCSW	VR37MB1SPK	0.700	0.0	50.0
SA10-7C	VR37N	0.711	0.0	50.0
SA10-Field Duplica	VR37O	0.715	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP111971 METHOD: ICP

START DATE: 11/19/2012

END DATE: 11/19/2012

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	09395			X			X		X					X		X	X	X		X												
S2	S2	1.00	09441						X											X														
S3	S3	1.00	09460																															
S4	S4	1.00	09483																															
S5	S5	1.00	09504			X					X					X		X	X			X												
ICV	ICV	1.00	09535			X			X		X					X		X	X	X		X												
ICB	ICB	1.00	09580			X			X		X					X		X	X	X		X												
CRI	CRII	1.00	10021			X			X		X					X		X	X	X		X												
ICSA	ICSAI	1.00	10063			X			X		X					X		X	X	X		X												
ICSAB	ICSABI	1.00	10104			X			X		X					X		X	X	X		X												
ZZZZZZ	HiPur	1.00	10154																															
ZZZZZZ	SpexQC	1.00	10195																															
ZZZZZZ	DICheck	1.00	10241																															
CCV	CCV1	1.00	10282			X			X		X					X		X	X	X		X												
CCB	CCB1	1.00	10324			X			X		X					X		X	X	X		X												
ZZZZZZ	HiPur	1.00	10525																															
ZZZZZZ	SpexQC	1.00	10571																															
CCV	CCV2	1.00	11012			X			X		X					X		X	X	X		X												
CCB	CCB2	1.00	11054			X			X		X					X		X	X	X		X												
ZZZZZZ	VS75MB	1.00	11140																															
ZZZZZZ	VS67MB	5.00	11182																															
ZZZZZZ	VS75A	1.00	11225																															
ZZZZZZ	VS75B	1.00	11265																															
ZZZZZZ	VS67B	5.00	11310																															
ZZZZZZ	VS67ADUP	5.00	11354																															
ZZZZZZ	VS67A	5.00	11401																															
ZZZZZZ	VS67ASPK	5.00	11442																															
ZZZZZZ	VS75MBSPK	1.00	11490																															
CCV	CCV3	1.00	11530			X			X		X					X		X	X	X		X												
CCB	CCB3	1.00	11572			X			X		X					X		X	X	X		X												
ZZZZZZ	VR36E	5.00	12014																															
ZZZZZZ	VR36F	5.00	12054																															
ZZZZZZ	VR36G	5.00	12094																															
ZZZZZZ	VR36H	5.00	12134																															
ZZZZZZ	VR36I	5.00	12174																															

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/19/2012

SDG: VR37 | RUNID: IP111971 | METHOD: ICP | END DATE: 11/19/2012

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	VR36J	5.00	12214																														
ZZZZZZ	VR36K	5.00	12254																														
ZZZZZZ	VR36L	5.00	12294																														
CCV	CCV4	1.00	12334			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	12380			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	12421			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	12463			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	12504			X			X		X					X		X	X	X		X											
CCV	CCV5	1.00	12543			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	12585			X			X		X					X		X	X	X		X											
ZZZZZZ	VS62MB1	1.00	13031																														
ZZZZZZ	VS62A	1.00	13072																														
ZZZZZZ	VS62B	1.00	13114																														
ZZZZZZ	VS62C	1.00	13160																														
ZZZZZZ	VS62MB1SPK	1.00	13202																														
CCV	CCV6	1.00	13242			X			X		X					X		X	X	X		X											
CCB	CCB6	1.00	13283			X			X		X					X		X	X	X		X											
ZZZZZZ	VS95MB	1.00	13340																														
ZZZZZZ	VS91MB1	5.00	13382																														
ZZZZZZ	VS91B	5.00	13430																														
ZZZZZZ	VS91ADUP	5.00	13473																														
ZZZZZZ	VS91A	5.00	13514																														
ZZZZZZ	VS91ASPK	5.00	13560																														
ZZZZZZ	VS95ADUP	1.00	14002																														
ZZZZZZ	VS95A	1.00	14043																														
ZZZZZZ	VS95ASPK	1.00	14085																														
ZZZZZZ	VS95MBSPK	1.00	14125																														
CCV	CCV7	1.00	14165			X			X		X					X		X	X	X		X											
CCB	CCB7	1.00	14220			X			X		X					X		X	X	X		X											
ZZZZZZ	VS91MB2	5.00	14261																														
ZZZZZZ	VS91C	5.00	14303																														
ZZZZZZ	VS91D	5.00	14350																														
ZZZZZZ	VS91E	5.00	14393																														
ZZZZZZ	VS91F	5.00	14440																														
ZZZZZZ	VS91G	5.00	14484																														

FORM XIV

VR37 09122

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

INSTRUMENT ID: OPTIMA ICP 2

RUNID: IP111971 METHOD: ICP

START DATE: 11/19/2012

END DATE: 11/19/2012

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	VS91H	5.00	14525																														
CCV	CCV8	1.00	14571			X			X		X					X		X	X	X		X											
CCB	CCB8	1.00	15022			X			X		X					X		X	X	X		X											
ZZZZZZ	VR35MB1	2.00	15063																														
ZZZZZZ	VR35B	5.00	15105																														
ZZZZZZ	VR35C	5.00	15145																														
ZZZZZZ	VR35D	5.00	15185																														
ZZZZZZ	VR35A-L	25.00	15225																														
ZZZZZZ	VR35A	5.00	15265																														
ZZZZZZ	VR35ADUP	5.00	15305																														
ZZZZZZ	VR35ASPK	5.00	15344																														
ZZZZZZ	ZZZZZZ	5.00	15384																														
ZZZZZZ	VR35MB1SPK	2.00	15425																														
CCV	CCV9	1.00	15465			X			X		X					X		X	X	X		X											
CCB	CCB9	1.00	15515			X			X		X					X		X	X	X		X											
ZZZZZZ	VR35E	5.00	15561																														
ZZZZZZ	VR35F	5.00	16001																														
ZZZZZZ	VR35G	5.00	16041																														
ZZZZZZ	VR35H	5.00	16081																														
ZZZZZZ	VR35I	5.00	16121																														
ZZZZZZ	VR35J	5.00	16161																														
ZZZZZZ	VR35K	5.00	16201																														
ZZZZZZ	VR35L	5.00	16241																														
SA8-2P-4(12 to 24	VR37B	5.00	16281			X			X		X					X		X	X	X		X											
CCV	CCV10	1.00	16321			X			X		X					X		X	X	X		X											
CCB	CCB10	1.00	16370			X			X		X					X		X	X	X		X											
CRI	CRIF1	1.00	16412			X			X		X					X		X	X	X		X											
ICSA	ICSAF1	1.00	16453			X			X		X					X		X	X	X		X											
ICSAB	ICSABF1	1.00	16495			X			X		X					X		X	X	X		X											
CCV	CCV11	1.00	16534			X			X		X					X		X	X	X		X											
CCB	CCB11	1.00	16585			X			X		X					X		X	X	X		X											
PBS	VR37MB1	2.00	17030			X			X		X					X		X	X	X		X											
SA8-3C	VR37C	5.00	17072			X			X		X					X		X	X	X		X											
SA8-4C	VR37D	5.00	17112			X			X		X					X		X	X	X		X											
SA8-5C	VR37E	5.00	17152			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: 11/19/2012

SDG: VR37 | RUNID: IP111971 | METHOD: ICP | END DATE: 11/19/2012

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
SA8-2P-3(6 to 12L	VR37A-L	25.00	17192			X			X		X					X		X	X	X		X											
SA8-2P-3(6 to 12	VR37A	5.00	17232			X			X		X					X		X	X	X		X											
SA8-2P-3(6 to 12D	VR37ADUP	5.00	17272			X			X		X					X		X	X	X		X											
SA8-2P-3(6 to 12S	VR37ASPK	5.00	17312			X			X		X					X		X	X	X		X											
ZZZZZZ	ZZZZZZ	5.00	17352																														
LCSS	VR37MB1SPK	2.00	17392			X			X		X					X		X	X	X		X											
CCV	CCV12	1.00	17432			X			X		X					X		X	X	X		X											
CCB	CCB12	1.00	17483			X			X		X					X		X	X	X		X											
SA8-6C	VR37F	5.00	17524			X			X		X					X		X	X	X		X											
SA8-7C	VR37G	5.00	17564			X			X		X					X		X	X	X		X											
SA8-8C	VR37H	5.00	18004			X			X		X					X		X	X	X		X											
SA8-Field Duplicat	VR37I	5.00	18044			X			X		X					X		X	X	X		X											
SA10-3C	VR37J	5.00	18084			X			X		X					X		X	X	X		X											
SA10-4C	VR37K	5.00	18124			X			X		X					X		X	X	X		X											
SA10-5C	VR37L	5.00	18170			X			X		X					X		X	X	X		X											
SA10-6C	VR37M	5.00	18210			X			X		X					X		X	X	X		X											
SA10-7C	VR37N	5.00	18250			X			X		X					X		X	X	X		X											
SA10-Field Duplica	VR37O	5.00	18290			X			X		X					X		X	X	X		X											
CCV	CCV13	1.00	18330			X			X		X					X		X	X	X		X											
CCB	CCB13	1.00	18375			X			X		X					X		X	X	X		X											
CRI	CRIF2	1.00	18421			X			X		X					X		X	X	X		X											
ICSA	ICSAF2	1.00	18462			X			X		X					X		X	X	X		X											
ICSAB	ICSABF2	1.00	18504			X			X		X					X		X	X	X		X											
CCV	CCV14	1.00	18544			X			X		X					X		X	X	X		X											
CCB	CCB14	1.00	18595			X			X		X					X		X	X	X		X											

VR37 : 6 of 21

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/19/2012

SDG: VR37 | RUNID: MS111911 METHOD: PMS | END DATE: 11/19/2012

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	12460		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	12500		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	12540		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	12590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	13030		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	13090																														
ZZZZZZ	Rinse sampl	1.00	13160																														
ICV	MICV	1.00	13230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	13300		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	13340		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	13410		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	13450		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	13490		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	13550		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	14020																														
ZZZZZZ	LR300	1.00	14090																														
ZZZZZZ	B1	1.00	14160																														
ZZZZZZ	B2	1.00	14220																														
ZZZZZZ	B3	1.00	14280																														
CCV	MCCV2	1.00	14320		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	14390		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR32A-L	100.00	14460																														
ZZZZZZ	VR32A	20.00	14500																														
ZZZZZZ	VR32ADUP	20.00	14540																														
ZZZZZZ	VR32ASPK	20.00	14580																														
ZZZZZZ	VR32B	20.00	15020																														
ZZZZZZ	VR32C	20.00	15060																														
ZZZZZZ	VR32D	20.00	15100																														
ZZZZZZ	VR32E	20.00	15150																														
ZZZZZZ	VR32F	20.00	15200																														
ZZZZZZ	VR32G	20.00	15240																														
CCV	MCCV3	1.00	15280		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	15350		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR33MB1	20.00	15410																														
ZZZZZZ	VR33MB1SPK	20.00	15450																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

INSTRUMENT ID: NEXION 300D MS

RUNID: MS111911 METHOD: PMS

START DATE: 11/19/2012

END DATE: 11/19/2012

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	VR32H	20.00	15490																														
ZZZZZZ	VR32I	20.00	15530																														
ZZZZZZ	VR32J	20.00	15570																														
ZZZZZZ	VR32K	20.00	16010																														
ZZZZZZ	VR32L	100.00	16070																														
ZZZZZZ	VR32L	20.00	16110																														
ZZZZZZ	VR33C	100.00	16150																														
ZZZZZZ	VR33C	20.00	16190																														
CCV	MCCV4	1.00	16230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	16300		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR33A-L	100.00	16350																														
ZZZZZZ	VR33A	20.00	16390																														
ZZZZZZ	VR33ADUP	20.00	16430																														
ZZZZZZ	VR33ASPK	20.00	16470																														
ZZZZZZ	VR33B	20.00	16520																														
ZZZZZZ	VR33D	20.00	16560																														
ZZZZZZ	VR33E	20.00	17000																														
ZZZZZZ	VR33F	20.00	17040																														
ZZZZZZ	VR33G	20.00	17090																														
ZZZZZZ	VR33H	20.00	17130																														
CCV	MCCV5	1.00	17170		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	17240		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR34A-L	500.00	17340																														
ZZZZZZ	VR34A	100.00	17380																														
ZZZZZZ	VR34ADUP	100.00	17420																														
ZZZZZZ	VR34ASPK	100.00	17460																														
ZZZZZZ	VR34B	20.00	17500																														
ZZZZZZ	VR34C	20.00	17550																														
ZZZZZZ	VR33I	20.00	17590																														
ZZZZZZ	VR33J	20.00	18030																														
ZZZZZZ	VR33K	20.00	18080																														
ZZZZZZ	VR33L	20.00	18120																														
CCV	MCCV6	1.00	18160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	18230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR34MB1	20.00	18290																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/19/2012

SDG: VR37 | RUNID: MS111911 METHOD: PMS | END DATE: 11/19/2012

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	VR34MB1SPK	20.00	18330																														
ZZZZZZ	VR34A-L	100.00	18370																														
ZZZZZZ	VR34A	20.00	18410																														
ZZZZZZ	VR34ADUP	20.00	18450																														
ZZZZZZ	VR34ASPK	20.00	18490																														
ZZZZZZ	VR34D	20.00	18530																														
ZZZZZZ	VR34E	20.00	18570																														
ZZZZZZ	VR34F	100.00	19030																														
ZZZZZZ	VR34F	20.00	19070																														
CCV	MCCV7	1.00	19110		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB7	1.00	19180		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR73MB1	2.00	19230																														
ZZZZZZ	VR73MB1SPK	2.00	19270																														
ZZZZZZ	VR34G	20.00	19310																														
ZZZZZZ	VR34H	20.00	19350																														
ZZZZZZ	VR34I	20.00	19390																														
ZZZZZZ	VR34J	20.00	19430																														
ZZZZZZ	VR34K	20.00	19480																														
ZZZZZZ	VR34L	20.00	19520																														
ZZZZZZ	VR73A	20.00	19570																														
ZZZZZZ	VR73C	20.00	20020																														
CCV	MCCV8	1.00	20060		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB8	1.00	20130		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR36MB1	20.00	20170																														
ZZZZZZ	VR36MB1SPK	20.00	20210																														
ZZZZZZ	VR36A-L	100.00	20250																														
ZZZZZZ	VR36A	20.00	20290																														
ZZZZZZ	VR36ADUP	20.00	20330																														
ZZZZZZ	VR36ASPK	20.00	20370																														
ZZZZZZ	VR36APOST	20.00	20420																														
ZZZZZZ	VR36B	20.00	20460																														
ZZZZZZ	VR36C	20.00	20510																														
ZZZZZZ	VR36D	20.00	20550																														
CCV	MCCV9	1.00	20590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB9	1.00	21060		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: 11/19/2012

SDG: VR37 | RUNID: MS111911 METHOD: PMS | END DATE: 11/19/2012

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
PBS	VR37MB1	20.00	21100		X		X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VR37MB1SPK	20.00	21140		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR36E	20.00	21180																														
ZZZZZZ	VR36F	20.00	21220																														
ZZZZZZ	VR36G	20.00	21270																														
ZZZZZZ	VR36H	20.00	21310																														
ZZZZZZ	VR36I	20.00	21350																														
ZZZZZZ	VR36J	20.00	21390																														
ZZZZZZ	VR36K	20.00	21440																														
ZZZZZZ	VR36L	20.00	21480																														
CCV	MCCV10	1.00	21520		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB10	1.00	21590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-2P-3(6 to 12L	VR37A-L	100.00	22030		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-2P-3(6 to 12	VR37A	20.00	22080		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-2P-3(6 to 12D	VR37ADUP	20.00	22120		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-2P-3(6 to 12S	VR37ASPK	20.00	22160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-2P-3(6 to 12A	VR37APOST	20.00	22200																						X								
SA8-2P-4(12 to 24	VR37B	20.00	22240		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-3C	VR37C	20.00	22280		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-4C	VR37D	20.00	22320		X		X			X		X	X	X	X								X		X	X				X		X	X
SA8-5C	VR37E	20.00	22380		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-6C	VR37F	20.00	22420		X		X			X		X	X	X	X								X		X	X				X		X	
CCV	MCCV11	1.00	22460		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB11	1.00	22530		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA8-7C	VR37G	20.00	22570		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-8C	VR37H	20.00	23010		X		X			X		X	X	X	X								X		X	X				X		X	
SA8-Field Duplicat	VR37I	20.00	23050		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA10-3C	VR37J	20.00	23090		X		X			X		X	X	X	X								X		X	X				X		X	
SA10-4C	VR37K	20.00	23130		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA10-5C	VR37L	20.00	23170		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA10-6C	VR37M	20.00	23220		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA10-7C	VR37N	20.00	23260		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA10-Field Duplica	VR37O	20.00	23310		X		X			X		X	X	X	X								X		X	X				X		X	
ZZZZZZ	VR66A	20.00	23350																														
CCV	MCCV12	1.00	23390		X		X			X		X	X	X	X								X	X	X	X				X		X	X

FORM XIV

VR37 SDG

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

INSTRUMENT ID: NEXION 300D MS

RUNID: MS111911 METHOD: PMS

START DATE: 11/19/2012

END DATE: 11/19/2012

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	CCB12	1.00	23460		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: 11/20/2012

SDG: VR37 — RUNID: MS112011 — METHOD: PMS — END DATE: 11/20/2012

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	10120																					X									X
S1	S1	1.00	10160																					X									X
S2	S2	1.00	10210																					X									X
S3	S3	1.00	10250																					X									X
S4	S4	1.00	10300																					X									X
S5	S5	1.00	10360																														
ZZZZZZ	Rinse sampl	1.00	10430																														
ICV	MICV	1.00	10500																					X									X
ICB	ICB	1.00	10570																					X									X
CCV	MCCV1	1.00	11010																					X									X
CCB	CCB1	1.00	11080																					X									X
CRI	MCRI	1.00	11120																					X									X
ICSA	ICSAI	1.00	11160																					X									X
ICSAB	ICSABI	1.00	11230																					X									X
ZZZZZZ	LR200	1.00	11300																														
ZZZZZZ	LR300	1.00	11370																														
ZZZZZZ	B1	1.00	11440																														
ZZZZZZ	B2	1.00	11500																														
ZZZZZZ	B3	1.00	11560																														
CCV	MCCV2	1.00	12000																					X									X
CCB	CCB2	1.00	12070																					X									X
ZZZZZZ	VS84MB	2.00	12120																														
ZZZZZZ	VS84MBSPK	2.00	12170																														
ZZZZZZ	VS84B	2.00	12210																														
ZZZZZZ	VS84C	2.00	12250																														
ZZZZZZ	VS84ADUP	20.00	12290																														
ZZZZZZ	VS84A	20.00	12340																														
ZZZZZZ	VS84ASPK	20.00	12380																														
ZZZZZZ	VS84ADUP	2.00	12420																														
ZZZZZZ	VS84A	2.00	12470																														
ZZZZZZ	VS84ASPK	2.00	12520																														
CCV	MCCV3	1.00	12560																					X									X
CCB	CCB3	1.00	13030																					X									X
ZZZZZZ	VR36A-L	500.00	13090																														
ZZZZZZ	VR36A	100.00	13130																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/20/2012

SDG: VR37 | RUNID: MS112011 METHOD: PMS | END DATE: 11/20/2012

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	VR36ADUP	100.00	13180																														
ZZZZZZ	VR36ASPK	100.00	13220																														
ZZZZZZ	VR36B	100.00	13260																														
ZZZZZZ	VR36C	100.00	13300																														
ZZZZZZ	VR36D	100.00	13360																														
ZZZZZZ	VR36H	100.00	13400																														
ZZZZZZ	VR36I	100.00	13440																														
ZZZZZZ	VR36J	100.00	13480																														
CCV	MCCV4	1.00	13530																					X									X
CCB	CCB4	1.00	14000																					X									X
ZZZZZZ	VR36K	100.00	14130																														
SA8-4C	VR37D	100.00	14170																					X									
SA8-5C	VR37E	100.00	14210																					X									X
SA8-6C	VR37F	100.00	14260																					X									X
SA8-7C	VR37G	100.00	14300																					X									X
SA8-8C	VR37H	100.00	14340																					X									X
SA10-3C	VR37J	100.00	14380																					X									X
SA10-7C	VR37N	100.00	14430																														X
SA10-Field Duplica	VR37O	100.00	14480																					X									X
ZZZZZZ	VR34G	100.00	14520																														
CCV	MCCV5	1.00	14560																					X									X
CCB	CCB5	1.00	15030																					X									X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR37 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	06462														X																
S0.1	S0.1	1.00	06475														X																
S0.5	S0.5	1.00	06493														X																
S1	S1	1.00	06511														X																
S2	S2	1.00	06524														X																
S5	S5	1.00	06542														X																
S10	S10	1.00	06560														X																
ICV	AICV	1.00	07050														X																
ICB	ICB	1.00	07063														X																
CCV	ACCV1	1.00	07081														X																
CCB	CCB1	1.00	07095														X																
CRA	CRA	1.00	07113														X																
ZZZZZZ	VS18MB1	1.00	07130																														
ZZZZZZ	VS18MB1SPK	1.00	07144																														
ZZZZZZ	VS18A	1.00	07161																														
ZZZZZZ	VS18ADUP	1.00	07175																														
ZZZZZZ	VS18ASPK	1.00	07193																														
ZZZZZZ	VS18B	1.00	07210																														
ZZZZZZ	VS18C	1.00	07224																														
ZZZZZZ	VS18D	1.00	07242																														
ZZZZZZ	VS18E	1.00	07260																														
CCV	ACCV2	1.00	07274														X																
CCB	CCB2	1.00	07292														X																
ZZZZZZ	VS18F	1.00	07310																														
ZZZZZZ	VS18G	1.00	07323																														
ZZZZZZ	VS18H	1.00	07341																														
ZZZZZZ	VS18I	1.00	07354																														
ZZZZZZ	VS18J	1.00	07372																														
ZZZZZZ	VS18K	1.00	07385																														
ZZZZZZ	VS18L	1.00	07403																														
PBW	VR37MB1	1.00	07421																														
LCSW	VR37MB1SPK	1.00	07434																														
SA8-2P-3(6 to 12	VR37A	1.00	07452																														
CCV	ACCV3	1.00	07470														X																
CCV	ACCV4	1.00	07584														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VR37 | RUNID: HG111701 | METHOD: CVA | END DATE: 11/17/2012

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	08002														X																
ZZZZZZ	VS18F	1.00	08020																														
ZZZZZZ	VS18G	1.00	08033																														
ZZZZZZ	VS18H	1.00	08051																														
ZZZZZZ	VS18I	1.00	08064																														
ZZZZZZ	VS18J	1.00	08082																														
ZZZZZZ	VS18K	1.00	08095																														
ZZZZZZ	VS18L	1.00	08113																														
PBW	VR37MB1	1.00	08131														X																
LCSW	VR37MB1SPK	1.00	08144														X																
SA8-2P-3(6 to 12	VR37A	1.00	08162														X																
CCV	ACCV5	1.00	08180														X																
CCB	CCB4	1.00	08194														X																
SA8-2P-3(6 to 12D	VR37ADUP	1.00	08212														X																
SA8-2P-3(6 to 12S	VR37ASPK	1.00	08230														X																
SA8-2P-4(12 to 24	VR37B	1.00	08243														X																
SA8-3C	VR37C	1.00	08261														X																
SA8-4C	VR37D	1.00	08274														X																
SA8-5C	VR37E	1.00	08292														X																
SA8-6C	VR37F	1.00	08310														X																
SA8-7C	VR37G	1.00	08323														X																
SA8-8C	VR37H	1.00	08341														X																
SA8-Field Duplicat	VR37I	1.00	08355														X																
CCV	ACCV6	1.00	08373														X																
CCB	CCB5	1.00	08391														X																
SA10-3C	VR37J	1.00	08404														X																
SA10-4C	VR37K	1.00	08422														X																
SA10-5C	VR37L	1.00	08440														X																
SA10-6C	VR37M	1.00	08454														X																
SA10-7C	VR37N	1.00	08472														X																
SA10-Field Duplica	VR37O	1.00	08485														X																
ZZZZZZ	VR58MB1	1.00	08503																														
ZZZZZZ	VR58MB1SPK	1.00	08520																														
ZZZZZZ	VR58A	1.00	08534																														
ZZZZZZ	VR58ADUP	1.00	08552																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VR37

INSTRUMENT ID: CETAC MERCURY

RUNID: HG111701

METHOD: CVA

START DATE: 11/17/2012

END DATE: 11/17/2012

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	ACCV7	1.00	08565														X																
CCB	CCB6	1.00	08584														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VR36, VR37

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-4C
ARI ID: 12-22237 VR36A

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.23
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.40
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.194	9.91

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-5C
ARI ID: 12-22238 VR36B

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.12
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	96.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.196	8.07

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-6C
ARI ID: 12-22239 VR36C

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.89
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	98.30
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.188	4.26

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-6P-1(0 to 3" depth)
ARI ID: 12-22240 VR36D

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.64
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	98.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	7.70

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-6P-2(3 to 6" depth)
ARI ID: 12-22241 VR36E

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.69
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	98.90
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	1.03

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-6P-3(6 to 12" depth)
ARI ID: 12-22242 VR36F

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.82
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.40
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	0.642

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-6P-4(12 to 24" depth)
ARI ID: 12-22243 VR36G

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.69
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	99.50
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	0.290

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA7-Field Duplicate
ARI ID: 12-22244 VR36H

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.43
Total Solids	11/15/12 111512#1	SM2540B	Percent	0.01	97.10
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	6.12

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-1C
ARI ID: 12-22245 VR36I

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.66
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.194	3.85

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-2C
ARI ID: 12-22246 VR36J

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.32
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.196	10.7

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-2P-1(0 to 3"depth)
ARI ID: 12-22247 VR36K

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	4.89
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	97.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.190	17.7

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-2P-2(3 to 6"depth)
ARI ID: 12-22248 VR36L

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.50
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.192	6.41

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

MS/MSD RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VR36I Client ID: SA8-1C						
Total Organic Carbon	11/27/12	Percent	3.85	20.9	14.6	116.4%

REPLICATE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VR36I Client ID: SA8-1C					
Total Solids	11/16/12	Percent	98.00	98.10 98.20	0.1%
Total Organic Carbon	11/27/12	Percent	3.85	4.29 5.10	14.4%

LAB CONTROL RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

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	11/16/12	std units	6.96	7.00	0.04
Total Organic Carbon Plumb,1981	ICVL	11/27/12	Percent	0.095	0.100	95.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

METHOD BLANK RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/15/12	Percent	< 0.01 U
	11/16/12		< 0.01 U
Total Organic Carbon	11/27/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
VR36-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

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	11/27/12	Percent	2.81	2.99	94.0%

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-2P-3(6 to 12"depth)
ARI ID: 12-22249 VR37A

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.66
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.90
Total Organic Carbon	11/27/12 112712#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
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-2P-4(12 to 24"depth)
ARI ID: 12-22250 VR37B

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.65
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	99.20
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	0.793

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA8-3C
ARI ID: 12-22251 VR37C

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.70
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	99.50
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	1.85

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-4C
ARI ID: 12-22252 VR37D

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.62
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	97.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.194	7.52

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-5C
ARI ID: 12-22253 VR37E

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.43
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	96.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.192	18.3

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-6C
ARI ID: 12-22254 VR37F

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.66
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	1.82

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-7C
ARI ID: 12-22255 VR37G

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.56
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	96.30
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	8.30

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Client ID: SA8-8C
ARI ID: 12-22256 VR37H

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.76
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	93.30
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	3.79

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/03/12
Date Received: 11/07/12

Client ID: SA8-Field Duplicate
ARI ID: 12-22257 VR37I

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.59
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	99.40
Total Organic Carbon	11/27/12 112712#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
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Client ID: SA10-3C
ARI ID: 12-22258 VR37J

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.02
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	95.80
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	6.66

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Client ID: SA10-4C
ARI ID: 12-22259 VR37K

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.97
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	89.60
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	21.3

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Client ID: SA10-5C
ARI ID: 12-22260 VR37L

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.41
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	95.30
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	9.37

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Client ID: SA10-6C
ARI ID: 12-22261 VR37M

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	5.74
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	94.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.190	11.1

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Client ID: SA10-7C
ARI ID: 12-22262 VR37N

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.12
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	95.40
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.192	8.72

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/05/12
Date Received: 11/07/12

Client ID: SA10-Field Duplicate
ARI ID: 12-22263 VR37O

Analyte	Date	Method	Units	RL	Sample
pH	11/16/12 111612#1	SW9045	std units	0.01	6.08
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	96.40
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.196	4.13

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

REPLICATE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/04/12
Date Received: 11/07/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VR37A Client ID: SA8-2P-3(6 to 12"depth)					
pH	11/16/12	std units	5.66	5.68	0.02

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

LAB CONTROL RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

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	11/16/12	std units	6.96	7.00	0.04
Total Organic Carbon Plumb,1981	ICVL	11/27/12	Percent	0.095	0.100	95.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

METHOD BLANK RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/16/12	Percent	< 0.01 U
Total Organic Carbon	11/27/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
VR37-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

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	11/27/12	Percent	2.81	2.99	94.0%

Total Solids

ARI Job ID: VR36, VR37

Solids Data Entry Report Checked by: LB Date: 11/17/12
Date: 11/16/12 Data Analyst: DM

Solids Determination performed on 11/15/12 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VR36	A	SA7-4C	1.024	10.724	10.605	98.77
VR36	B	SA7-4C	0.966	10.361	9.922	95.33
VR36	C	SA7-4C	1.002	10.858	10.595	97.33
VR36	D	SA7-4C	0.963	10.368	10.090	97.04
VR36	E	SA7-4C	0.971	10.862	10.695	98.31
VR36	F	SA7-4C	0.994	10.385	10.283	98.91
VR36	G	SA7-4C	0.980	10.541	10.449	99.04
VR36	H	SA7-4C	1.009	10.225	9.827	95.68
VR36	I	SA7-4C	0.935	10.071	9.831	97.37
VR36	J	SA7-4C	0.988	10.635	10.389	97.45
VR36	K	SA7-4C	0.993	10.231	9.834	95.70
	L		1.0010	10.0770	9.9090	98.1

11/19/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 014 **Balance ID:** B116132369

Samples in Oven: Date: 11-15-12 Time: 1148 Temp: 108°C Analyst: NB

Removed from Oven: Date: 11-16-12 Time: 0745 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]
VR36 A	1.024	10.724	10.605	—	✓
" B	0.966	10.361	9.922	—	✓
" C	1.002	10.858	10.595	—	✓
" D	0.963	10.368	10.090	—	✓
" E	0.971	10.862	10.695	—	✓
" F	0.994	10.395	10.283	—	✓
" G	0.980	10.541	10.449	—	✓
" H	1.009	10.225	9.827	—	✓
" I	0.935	10.071	9.631	—	✓
" J	0.988	10.635	10.369	—	✓
" K	0.993	10.231	9.694	—	✓
" L	1.001	10.077	9.905	—	✓
		NB 11-15-12			

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.

Solids Data Entry Report Checked by: CG Date: 11/17/12
Date: 11/17/12 Data Analyst: DM

Solids Determination performed on 11/15/12 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VR37	L	SA10-5C	1.006	10.975	10.486	95.09

Solids Data Entry Report Checked by: CA Date: 11/17/12
Date: 11/16/12 Data Analyst: DM

Solids Determination performed on 11/15/12 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VR37	A	SA8-2P-3(6 to 12	0.984	10.923	10.806	98.82
VR37	B	SA8-2P-3(6 to 12	0.997	10.490	10.406	99.12
VR37	C	SA8-2P-3(6 to 12	0.955	10.420	10.344	99.20
VR37	D	SA8-2P-3(6 to 12	1.013	10.113	9.875	97.38
VR37	E	SA8-2P-3(6 to 12	0.992	10.799	10.483	96.78
VR37	F	SA8-2P-3(6 to 12	0.971	10.928	10.767	98.38
VR37	G	SA8-2P-3(6 to 12	0.987	10.650	10.256	95.92
VR37	H	SA8-2P-3(6 to 12	0.976	10.206	9.546	92.85
VR37	I	SA8-2P-3(6 to 12	1.000	10.833	10.752	99.18
VR37	J	SA8-2P-3(6 to 12	0.993	10.241	9.814	95.38
VR37	K	SA8-2P-3(6 to 12	0.987	10.281	9.296	89.40
VR37	L	SA8-2P-3(6 to 12	1.006	10.975	10.586	96.10
VR37	M	SA8-2P-3(6 to 12	1.005	10.858	10.332	94.66
VR37	N	SA8-2P-3(6 to 12	0.977	10.350	9.905	95.25
VR37	O	SA8-2P-3(6 to 12	1.001	10.831	10.464	96.27

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 066755

Samples in Oven: Date: 11-15-12 Time: 1450 Temp: 103°C Analyst: DM

Removed from Oven: Date: 11-16-12 Time: 0717 Temp: 103°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]
VR37	A	0.984	10.923	10.806	–	✓
"	B	0.997	10.490	10.406	–	✓
"	C	0.955	10.420	10.344	–	✓
"	D	1.013	10.113	9.875	–	✓
"	E	0.992	10.799	10.483	–	✓
"	F	0.971	10.928	10.767	–	✓
"	G	0.987	10.650	10.256	–	✓
"	H	0.976	10.206	9.546	–	✓
"	I	1.000	10.833	10.752	–	✓
"	J	0.993	10.241	9.814	–	✓
"	K	0.987	10.281	9.296	–	✓
"	L	1.006	10.975	10.486	–	✓
"	M	1.005	10.858	10.332	–	✓
"	N	0.977	10.350	9.905	–	✓
"	O	1.001	10.831	10.464	–	✓
			11-15-12 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: VR36, VR37

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: NB

Date: 11-15-12

Final Volume 50.0

Final Volume (Hg): 50.0

Sample ID VR36A SPK, MB1SPK

		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	

	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
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM
Date: 11-15-12

Final Volume 50
Final Volume (Hg): 50

Sample ID VR37 ASPK, MBSPK

		ICP Routine	ICP No GFA	GFA
Prepcode:		SNL		
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	↓	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

Digestion Log

Analyst: NB Date: 11-15-12 Time: 1229

Matrix: SOIL Block ID: #5 Block Temp: 90°C Thermometer: MP8

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
VR36 A	1	—	1.087	50.0	1.083	50.0	
" ADUP	1	—	1.085		1.085		
" ASPK	1	—	1.089		1.085		
" B	1	—	1.005		1.037		
" C	1	—	1.074		1.075		
" D	1	—	1.042		1.045		
" E	1	—	1.066		1.057		
" F	1	—	1.026		1.030		
" G	1	—	1.028		1.021		
" H	1	—	1.065		1.075		
" I	1	—	1.009		1.012		
" J	1	—	1.006		1.016		
" K	1	—	1.041		1.066		
" L	1	—	1.033		1.074		
" MBI	—	—	—		—		
" MBSPK	—	—	—	50.0	—	50.0	

NB 11-15-12

Chemical/Reagent ID:

HNO_3: MP2390/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: 11-15-12
Bath Temp: 95°C Start Time: 1249 End Time: 1319

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR36 A	1	—	0.710	50.0	1 (11-18)	YES	
" ADUP	1	—	0.707		1		
" ASPK	1	—	0.709		1		
" B	1	—	0.709		1		
" C	1	—	0.746		1		
" D	1	—	0.712		1		
" E	1	—	0.731		1		
" F	1	—	0.733		1		
" G	1	—	0.708		1		
" H	1	—	0.707		1		
" I	1	—	0.722		1		
" J	1	—	0.742		1		
" K	1	—	0.724		1		
" L	1	—	0.728		1		
" MB1	—	—	—		1		
" MB1SPK	—	—	—	50.0	1		

NB 11-15-12

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
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 11-15-12 Time: 1502

Matrix: Soil Block ID: #1 | #4 Block Temp: 90°c | 91°c Thermometer: MP40 | MP44

ARI Sample ID	Btl #	pH<2	Prep Code: SW3 Initial Wt (g) ~~Vol (mL)~~	Prep Code: SW3 Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
VR35 A	1	—	1.085	50.0	1.039	50.0	
" ADUP	1	—	1.085		1.036		
" AFSPK	1	—	1.088		1.044		
" B	1	—	1.057		1.001		
" C	1	—	1.043		1.033		
" D	1	—	1.005		1.017		
" E	1	—	1.078		1.032		
" F	1	—	1.071		1.057		
" G	1	—	1.037		1.045		
" H	1	—	1.012		1.003		
" I	1	—	1.036		1.006		
" J	1	—	1.030		1.021		
" K	1	—	1.009		1.004		
" L	1	—	1.017		1.030		
" M	1	—	1.048		1.046		
" N	1	—	1.013		1.041		
" O	1	—	1.072		1.054		
" MB1	—	—	—		—		
" MB1SPK	—	—	—	50.0	—	50.0	

11-15-12 DM

Chemical/Reagent ID:

HNO_3: NP2390 | I7855 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: DM
Bath Temp: 95°C
Matrix: Soil
Date: 11-15-12
Start Time: 1525
End Time: 1555

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR57 A	1	—	0.717	50.0	11/18 1	Y	
" ADUP	1	—	0.715		1		
" ASPK	1	—	0.720		1		
" B	1	—	0.708		1		
" C	1	—	0.734		1		
" D	1	—	0.741		1		
" E	1	—	0.734		1		
" F	1	—	0.732		1		
" G	1	—	0.736		1		
" H	1	—	0.727		1		
" I	1	—	0.737		1		
" J	1	—	0.709		1		
" K	1	—	0.740		1		
" L	1	—	0.736		1		
" M	1	—	0.721		1		
" N	1	—	0.711		1		
" O	1	—	0.715		1		
" MBI	—	—	—		1		
" MBSPK	—	—	—	50.0	1	Y	

11-15-12 DM

Chemical/Reagent ID:

HNO_3: I7683
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

Metals Laboratory Analyst Notes

ARI Job No.: VR36

Client ID: Hart Crowser

Parameter: ICP

Client Project: Upper Columbia

List problems, concerns, corrective actions and any other pertinent information
MB1 had Mn > RL (0.00115 mg/L). All samples >10x contamination level.

Analyst Initials:	BA	Date:	11-20-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VR36
Unacceptable Blank:	☐	Date of Event:	11.19.12
Unacceptable Duplicate:	☑	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

A: 1.575 ppb Sb
ADup: 1.239 ppb Sb RPD = 24
ASpk: 5.973 ppb Sb %R = 17.6

A: 200.802 ppb Zn
ASpk: 258.640 ppb Zn %R = 71.8

post-spike ok
(see attached)

Samples Affected:

Corrective Action Taken:

Lvd 11/21/12

Analyst Initials: MJT **Supervisor:**

Date: 11.20.12 **Date:**

5049F

Revision 007
6/11/10

MATRIX DUPLICATE AND MATRIX SPIKE WORKSHEET (FOR SAMPLES >5 IDL)								VR36 A	
		icpms							
DUPLICATION:					SPIKE RECOVERY:				
	DUP	BKGD				SPIKE	BKGD		
VOLUME	100	100			VOLUME	100	100		
SAMP WT	1.085	1.083			SAMP WT	1.085	1.0830		
ELEMENT	DUP	BKGD	% RPD		ELEMENT	SPIKE	BKGD	SPK'D CONC	% RECOV
	ug/l	ug/l				ug/l	ug/l	mg/L	#VALUE!
Be			#VALUE!		Be			25	0
Na			#DIV/0!		Na			5000	0
Mg			#VALUE!		Mg			5000	#VALUE!
Al			#VALUE!		Al			5000	#VALUE!
K			#DIV/0!		K			5000	0
Ca			#DIV/0!		Ca			5000	0
V	9.926	9.644	2.70		V	35.389	9.644	25	102.90876
Cr	7.861	7.533	4.08		Cr	32.659	7.533	25	100.44835
Fe			#VALUE!		Fe			5000	#VALUE!
Mn			#VALUE!		Mn			25	#VALUE!
Co	2.267	2.212	2.27		Co	26.689	2.212	25	97.89166
Ni	6.674	6.295	5.66		Ni	31.164	6.295	25	99.4295
Cu	15.7060	13.603	14.17		Cu	38.58	13.603	25	99.807516
Zn	192.009	200.802	4.66		Zn	258.64	200.802	80	71.833968
As	10.595	10.691	1.09		As	37.113	10.691	25	105.60903
Se	0	0	#DIV/0!		Se	78.53	0	80	98.1625
Mo			#VALUE!		Mo			25	#VALUE!
Ag	0.248	0.245	1.03		Ag	20.923	0.245	25	82.71019
Cd	4.58	5.104	11.01		Cd	28.758	5.104	25	94.578297
Sb	1.239	1.575	24.06		Sb	5.973	1.575	25	17.580366
Ba			#VALUE!		Ba			25	#VALUE!
Tl	0.255	0.262	2.89		Tl	24.927	0.262	25	98.658065
Pb			#VALUE!		Pb			25	#VALUE!

VR36 : 00187

TABLE 6

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Metals Laboratory Analyst Notes

ARI Job No.: VR37

Client ID: Hart Crowser

Parameter: ICP

Client Project: Upper Columbia

List problems, concerns, corrective actions and any other pertinent information
CCB13 Mn > RL (0.00147 mg/L) - All samples >10x contamination level.
A-L Serial dil'n difference for Mg > 10%, (~12%)
Closing CRI Mn > 150% Recovery (0.00171 mg/L) (carryover). All samples except K > CCV level. K was still >150x RL.

Analyst Initials:	BA	Date:	11-20-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VR37
Unacceptable Blank:	☐	Date of Event:	11.19.12
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

A : Ø ppb Sb

ASPK : 1.297 ppb Sb %R = 5.2

post-spike ok

Samples Affected:

Corrective Action Taken:

End 11/21/12

Analyst Initials: MJT **Supervisor:**

Date: 11.20.12 **Date:**

5049F

Revision 007
6/11/10

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VR36, VR37

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: 11-16-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2992-3
		2			2991-4 Insufficient volume
		3			2991-5
		4			-6
		5			-7
		2			-4
		ICV			2988-6
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		VR30 B	SWC	5	
		D			
		E			
		F			
		G			
		H			
		CCV2			
		CCB2			
		VR32 A-L	SWC	25	
		A		5	
		ADUP			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-16-12 Analyst: BA

LR Date: — Page: 2 of 6

All corrections made by analyst unless otherwise noted. BA 11-16-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VR32 ASPK	SWC	5	Al Ba Fe Mn STL
		~~APOST~~	↓	↓	(0.08 mL ICP Spike 2977-9) ↓
		L	↓	↓	
		CCV3			
		CCB3			
		CRI			
		ICSA			
		ICSAB			
		CCV4			
		CCB4			End VR30, 32
	✓	VR34 MB1	SWC	2	
	✓	B		5	
	✓	C		↓	
	✓	D		↓	
	✓	~~AL~~		25	
	✓	A		5	
	✓	ADUP		↓	
	✓	ASPK		↓	
	✓	~~APOST~~		↓	0.08 mL ICP Spike 2977-9
	✓	MB1SPK	↓	2	
		CCV5			Ba, Co, Fe, Mg, Na, 330 Si ↑
		CCB5			~35 min ↓ delay
		CCV6			
		CCB6			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: —— **Analysis Date:** 11-16-12 **Analyst:** BA
LR Date: —— **Page:** 3 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VR34 E	SWC	5	
		↓ F	↓	↓	
		G			
		H			
		I			
		J			
		K			
		↓ L	↓	↓	
		CCV7			
		CCB7			} ½ hr delay
		CCV8			
		CCB8			
		VR34 MB1	SWC	2	
		↓ B	↓	5	
		C		↓	
		D		↓	
		A-L		25	✓
		A		5	
		ADUP		↓	✓
		ASPK			✓ Al, Fe, Mn STL Ca↑
		~~APOST~~ 2222222 H1K0		↓	✓ (0.98 ml JJ Spike 2977-9) ↓ Ca OK (C.A.F)
		↓ MB1SPK	↓	2	✓
		CCV9			
		CCB9			

Analytical Resources, Incorporated
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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — **Analysis Date:** 11-16-12 **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
		VR33 MB1	SWC	2	
		↓ B	↓	5	
		C		↓	
		D		↓	
		A-L		25 ✓	
		A		5	
		ADUP		↓ ✓	
		ASPK		✓	Al Fe Mn STL Mg↑
		~~APOST~~ H11-20		↓ ✓	(0.95 mL ICP Spike 2977-9)↓ Mg↑ (C.A.F.)
		↓ MBISPK	↓	2 ✓	
		CCV10			Al, Ba, Cd, Ca, Cr, Cu, Fe, Mg, Mn, Mo, Na 330, Pb, Sb, Si, Sn, Ti, V, Zn ↑ (A.N.)
		CCB10			
		CCV11			
		CCB11			
		VR33 E	SWC	5	
		F			
		G			
		H			
		I			
		J			
		K			
		↓ L	↓	↓	
		CCV12			
		CCB12			

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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: 11-16-12 Analyst: BA

LR Date: — Page: 5 of 6

All corrections made by analyst unless otherwise noted. BA 11-19-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CRI			
		ICSA			
		ICSAB			
		CCV13			
		CCB13			End VR34, VR33
		VR36 MB1	SWC	2	Mn > BL(0.00115 mg/L) -A.N.
		B		5	
		C		↓	
		D		↓	
		A-L		25 ✓	
		A		5	
		ADUP		↓ ✓	
		ASPK		↓ ✓	Al, Fe STL
		~~ZZZZZZ~~ ~~APOST~~		↓ ✓	↓ (0.05 mL ICB Spike 2977-9)
		MB1SPK	↓	2 ✓	
		CCV14			
		CCB14			
	✓	VR36 E	SWC	5	Failing CCV
	✓	F		↓	
	✓	G			
	✓	H			
	✓	I			
	✓	J			
	✓	K	↓	↓	↓

VR36 : 00195

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-16-12 Analyst: BA

LR Date: — Page: 6 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	VR36 L	SWC	5	failing CCV
		CCV15			Ag, B, Ba, Ca, Na[589], Ni, Sr, Tl ↓
		CCB15			
		CRI zzzzzz			Cu <5%
		ICSA			
		ICSAB			
		CCV16			Ag, B, Ba, Na[589], Ni, Sc, Tl ↓
		CCB16			Emg
		Rinse/DI			

BA 11/19/12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-16-12

ICP - 2	Analyst BA 11-20-12	Peer AH 11-20	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	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See log - VR34, VR33
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	See log - VR36
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 - VR34, VR33~~ A.N. - VR33, VR36

Analysis Begun

Start Time: 11/16/2012 8:40:06 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121116
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: 11/16/2012 8:40:14 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	2257192.3	5062.38	0.22%	100.0	%
ScR 361.383	285929.2	1391.38	0.49%	100.0	%
Ag 328.068†	-156.2	13.31	8.52%	[0.00]	mg/L
Al 308.215†	147.1	12.17	8.28%	[0.00]	mg/L
As 188.979†	-9.5	1.63	17.14%	[0.00]	mg/L
B 249.677†	40.2	10.66	26.54%	[0.00]	mg/L
Ba 233.527†	19.9	6.07	30.52%	[0.00]	mg/L
Be 313.042†	905.1	35.52	3.92%	[0.00]	mg/L
Ca 317.933†	161.6	10.52	6.51%	[0.00]	mg/L
Cd 228.802†	303.7	1.47	0.48%	[0.00]	mg/L
Co 228.616†	-63.9	0.59	0.92%	[0.00]	mg/L
Cr 267.716†	-81.8	5.34	6.52%	[0.00]	mg/L
Cu 324.752†	2486.2	26.59	1.07%	[0.00]	mg/L
Fe 273.955†	14.2	2.43	17.08%	[0.00]	mg/L
K 766.490†	498.6	23.15	4.64%	[0.00]	mg/L
Mg 279.077†	83.4	7.46	8.95%	[0.00]	mg/L
Mn 257.610†	157.9	1.11	0.71%	[0.00]	mg/L
Mo 202.031†	66.0	0.64	0.97%	[0.00]	mg/L
Na 589.592†	-326.9	3.37	1.03%	[0.00]	mg/L
Na 330.237†	-205.1	3.78	1.84%	[0.00]	mg/L
Ni 231.604†	-23.4	4.31	18.37%	[0.00]	mg/L
Pb 220.353†	62.2	0.92	1.47%	[0.00]	mg/L
Sb 206.836†	64.7	1.51	2.33%	[0.00]	mg/L
Se 196.026†	-53.9	5.80	10.77%	[0.00]	mg/L
Si 288.158†	61.1	6.41	10.48%	[0.00]	mg/L
Sn 189.927†	0.6	3.59	648.11%	[0.00]	mg/L
Sr 421.552†	398.0	32.76	8.23%	[0.00]	mg/L
Ti 334.903†	-53.4	5.15	9.65%	[0.00]	mg/L
Tl 190.801†	-42.6	0.94	2.21%	[0.00]	mg/L
V 292.402†	180.2	30.85	17.12%	[0.00]	mg/L
Zn 206.200†	26.6	1.80	6.77%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/16/2012 8:44:35 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	5162065.8	309107.01	5.99%	228.7	%
ScR 361.383	753266.5	90956.28	12.07%	263.4	%
Ba 233.527†	1874.1	1447.51	77.24%	[10]	mg/L
Saturated within auto integration window (code 4)					
Cd 228.802†	33927.3	6109.66	18.01%	[10]	mg/L
Co 228.616†	36364.7	6783.73	18.65%	[10]	mg/L
Cr 267.716†	2462.0	1761.76	71.56%	[10]	mg/L
Saturated within auto integration window (code 4)					
Cu 324.752†	249596.2	35377.75	14.17%	[10]	mg/L
Saturated within auto integration window (code 4)					
Mn 257.610†	3225.8	1401.70	43.45%	[10]	mg/L
Saturated within auto integration window (code 4)					
V 292.402†	138697.0	25356.30	18.28%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/16/2012 8:47:36 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	Conc.	Calib Units
ScA 357.253	2240434.6	11749.05	0.52%	99.26	%
ScR 361.383	278574.0	2167.99	0.78%	97.43	%
Ag 328.068†	176715.6	981.09	0.56%	[1.0]	mg/L
As 188.979†	18889.0	102.99	0.55%	[10]	mg/L
B 249.677†	78359.9	959.17	1.22%	[10]	mg/L
Be 313.042†	3325157.8	9039.91	0.27%	[5.0]	mg/L
Na 589.592†	637056.8	3225.78	0.51%	[50]	mg/L
Ni 231.604†	41213.5	479.43	1.16%	[10]	mg/L
Pb 220.353†	80014.5	352.48	0.44%	[10]	mg/L
Se 196.026†	14888.7	66.03	0.44%	[10]	mg/L
Sr 421.552†	4683748.6	13846.00	0.30%	[5]	mg/L
Tl 190.801†	25566.5	125.79	0.49%	[10]	mg/L
Zn 206.200†	40539.2	432.89	1.07%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/16/2012 8:50:10 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
A11	217.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2284080.4	20514.72	0.90%	101.2	%
ScR 361.383	287209.0	4271.56	1.49%	100.4	%
Mo 202.031†	200666.8	1788.12	0.89%	[10]	mg/L
Sb 206.836†	32698.0	176.84	0.54%	[10]	mg/L
Si 288.158†	21523.3	356.61	1.66%	[10]	mg/L
Sn 189.927†	38978.7	378.05	0.97%	[10]	mg/L
Ti 334.903†	208410.1	4234.27	2.03%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/16/2012 8:52:25 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2129515.1	15926.23	0.75%	94.34	%
ScR 361.383	283261.8	4479.15	1.58%	99.07	%
Al 308.215†	53425.5	1062.08	1.99%	[30]	mg/L
Ca 317.933†	426118.0	3161.77	0.74%	[30]	mg/L
Fe 273.955†	131112.8	857.59	0.65%	[100]	mg/L
K 766.490†	199317.4	2014.88	1.01%	[100]	mg/L
Mg 279.077†	44239.4	880.98	1.99%	[30]	mg/L
Na 330.237†	2873.6	54.15	1.88%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	176700	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1781	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1889	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7836	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	187.4	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	665000	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	14200	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	3393	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	3636	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	246.2	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	24960	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1311	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1993	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1475	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	322.6	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	20070	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12740	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	28.74	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4121	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	8001	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3270	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1489	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2152	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3898	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	936700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	20840	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2557	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	13870	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4054	0.00000	1.000000	

Analysis Begun

Start Time: 11/16/2012 9:03:33 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121116
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: STD2

Date Collected: 11/16/2012 9:03:34 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2234101.3	25048.88	1.12%	98.98	%
ScR 361.383	281040.0	8376.44	2.98%	98.29	%
Ba 233.527†	45364.6	2015.40	4.44%	[10]	mg/L
Cd 228.802†	316786.9	4140.20	1.31%	[10]	mg/L
Co 228.616†	352595.3	5111.49	1.45%	[10]	mg/L
Cr 267.716†	62110.4	2667.07	4.29%	[10]	mg/L
Cu 324.752†	2600465.7	38628.72	1.49%	[10]	mg/L
Mn 257.610†	361794.3	15460.11	4.27%	[10]	mg/L
V 292.402†	1309618.0	17838.14	1.36%	[10]	mg/L

Analysis Begun

Start Time: 11/16/2012 9:05:19 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121116
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: 11/16/2012 9:05:20 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	2209684.8	97.90	%	0.341				0.35%
ScR 361.383	282108.1	98.66	%	1.030				1.04%
Ag 328.068†	171195.3	0.9690	mg/L	0.00334	0.9690	mg/L	0.00334	0.34%
Al 308.215†	3611.7	1.994	mg/L	0.0285	1.994	mg/L	0.0285	1.43%
As 188.979†	3613.4	1.937	mg/L	0.0091	1.937	mg/L	0.0091	0.47%
B 249.677†	7493.5	0.9554	mg/L	0.00947	0.9554	mg/L	0.00947	0.99%
Ba 233.527†	4623.1	1.019	mg/L	0.0129	1.019	mg/L	0.0129	1.27%
Be 313.042†	622301.4	0.9355	mg/L	0.01462	0.9355	mg/L	0.01462	1.56%
Ca 317.933†	27114.7	1.909	mg/L	0.0255	1.909	mg/L	0.0255	1.34%
Cd 228.802†	32872.5	1.026	mg/L	0.0051	1.026	mg/L	0.0051	0.50%
Co 228.616†	36272.9	1.027	mg/L	0.0044	1.027	mg/L	0.0044	0.43%
Cr 267.716†	6298.6	1.014	mg/L	0.0094	1.014	mg/L	0.0094	0.93%
Cu 324.752†	260661.1	1.002	mg/L	0.0035	1.002	mg/L	0.0035	0.35%
Fe 273.955†	2632.3	2.001	mg/L	0.0211	2.001	mg/L	0.0211	1.06%
K 766.490†	39267.6	19.70	mg/L	0.308	19.70	mg/L	0.308	1.56%
Mg 279.077†	2926.1	1.992	mg/L	0.0206	1.992	mg/L	0.0206	1.04%
Mn 257.610†	35565.1	0.9834	mg/L	0.01313	0.9834	mg/L	0.01313	1.33%
Mo 202.031†	20424.2	1.018	mg/L	0.0045	1.018	mg/L	0.0045	0.44%
Na 589.592†	619490.6	48.62	mg/L	0.591	48.62	mg/L	0.591	1.22%
Na 330.237†	1485.5	51.60	mg/L	0.574	51.60	mg/L	0.574	1.11%
Ni 231.604†	3941.7	0.9567	mg/L	0.00964	0.9567	mg/L	0.00964	1.01%
Pb 220.353†	15806.7	1.977	mg/L	0.0055	1.977	mg/L	0.0055	0.28%
Sb 206.836†	6859.5	2.097	mg/L	0.0069	2.097	mg/L	0.0069	0.33%
Se 196.026†	2843.4	1.909	mg/L	0.0148	1.909	mg/L	0.0148	0.77%
Si 288.158†	4441.4	2.063	mg/L	0.0250	2.063	mg/L	0.0250	1.21%
Sn 189.927†	3882.0	0.9973	mg/L	0.00242	0.9973	mg/L	0.00242	0.24%
Sr 421.552†	889172.4	0.9492	mg/L	0.01240	0.9492	mg/L	0.01240	1.31%
Ti 334.903†	20989.1	1.006	mg/L	0.0138	1.006	mg/L	0.0138	1.37%
Tl 190.801†	4946.7	1.927	mg/L	0.0082	1.927	mg/L	0.0082	0.42%
V 292.402†	130561.3	1.001	mg/L	0.0042	1.001	mg/L	0.0042	0.42%
Zn 206.200†	3966.6	0.9782	mg/L	0.01019	0.9782	mg/L	0.01019	1.04%

Sequence No.: 2
Sample ID: ICB

Autosampler Location: 1
Date Collected: 11/16/2012 9:09:11 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	216.0 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	2196753.1	97.32	%	0.645				0.66%
ScR 361.383	277079.3	96.90	%	0.596				0.62%
Ag 328.068†	25.3	0.00014	mg/L	0.000119	0.00014	mg/L	0.000119	83.25%
Al 308.215†	11.8	0.00663	mg/L	0.004874	0.00663	mg/L	0.004874	73.52%
As 188.979†	-2.4	-0.00130	mg/L	0.000877	-0.00130	mg/L	0.000877	67.73%
B 249.677†	20.4	0.00260	mg/L	0.000693	0.00260	mg/L	0.000693	26.66%
Ba 233.527†	-1.6	-0.00036	mg/L	0.000345	-0.00036	mg/L	0.000345	96.09%
Be 313.042†	140.9	0.00021	mg/L	0.000063	0.00021	mg/L	0.000063	29.60%
Ca 317.933†	4.1	0.00029	mg/L	0.000613	0.00029	mg/L	0.000613	209.76%
Cd 228.802†	-4.1	-0.00012	mg/L	0.000133	-0.00012	mg/L	0.000133	109.62%
Co 228.616†	-13.1	-0.00037	mg/L	0.000080	-0.00037	mg/L	0.000080	21.59%
Cr 267.716†	-1.9	-0.00030	mg/L	0.000789	-0.00030	mg/L	0.000789	263.58%
Cu 324.752†	73.5	0.00028	mg/L	0.000129	0.00028	mg/L	0.000129	45.76%
Fe 273.955†	2.6	0.00199	mg/L	0.000852	0.00199	mg/L	0.000852	42.89%
K 766.490†	40.7	0.02043	mg/L	0.010112	0.02043	mg/L	0.010112	49.51%
Mg 279.077†	6.7	0.00456	mg/L	0.002283	0.00456	mg/L	0.002283	50.03%
Mn 257.610†	0.2	0.00001	mg/L	0.000163	0.00001	mg/L	0.000163	>999.9%
Mo 202.031†	20.7	0.00103	mg/L	0.000105	0.00103	mg/L	0.000105	10.18%
Na 589.592†	146.5	0.01150	mg/L	0.003439	0.01150	mg/L	0.003439	29.92%
Na 330.237†	-7.5	-0.2613	mg/L	0.47250	-0.2613	mg/L	0.47250	180.80%
Ni 231.604†	-8.7	-0.00212	mg/L	0.001223	-0.00212	mg/L	0.001223	57.68%
Pb 220.353†	3.0	0.00037	mg/L	0.000277	0.00037	mg/L	0.000277	75.11%
Sb 206.836†	7.4	0.00227	mg/L	0.001134	0.00227	mg/L	0.001134	49.84%
Se 196.026†	7.0	0.00472	mg/L	0.002402	0.00472	mg/L	0.002402	50.90%
Si 288.158†	3.5	0.00165	mg/L	0.002627	0.00165	mg/L	0.002627	159.46%
Sn 189.927†	-2.5	-0.00063	mg/L	0.000777	-0.00063	mg/L	0.000777	123.08%
Sr 421.552†	134.3	0.00014	mg/L	0.000071	0.00014	mg/L	0.000071	49.43%
Ti 334.903†	-3.6	-0.00017	mg/L	0.000923	-0.00017	mg/L	0.000923	527.60%
Tl 190.801†	-0.9	-0.00037	mg/L	0.001500	-0.00037	mg/L	0.001500	408.38%
V 292.402†	-13.9	-0.00011	mg/L	0.000253	-0.00011	mg/L	0.000253	236.98%
Zn 206.200†	-0.5	-0.00012	mg/L	0.000096	-0.00012	mg/L	0.000096	80.81%

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 301
Date Collected: 11/16/2012 9:13:27 AM
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	2216218.3	98.18	%	0.984				1.00%
ScR 361.383	282613.9	98.84	%	1.028				1.04%
Ag 328.068†	537.3	0.00304	mg/L	0.000179	0.00304	mg/L	0.000179	5.90%
Al 308.215†	108.1	0.06056	mg/L	0.008648	0.06056	mg/L	0.008648	14.28%
As 188.979†	87.4	0.04638	mg/L	0.000615	0.04638	mg/L	0.000615	1.33%
B 249.677†	161.3	0.02058	mg/L	0.000219	0.02058	mg/L	0.000219	1.07%
Ba 233.527†	10.4	0.00228	mg/L	0.001457	0.00228	mg/L	0.001457	64.02%
Be 313.042†	676.8	0.00102	mg/L	0.000033	0.00102	mg/L	0.000033	3.26%
Ca 317.933†	680.4	0.04791	mg/L	0.000586	0.04791	mg/L	0.000586	1.22%
Cd 228.802†	68.8	0.00187	mg/L	0.000023	0.00187	mg/L	0.000023	1.24%
Co 228.616†	104.8	0.00296	mg/L	0.000186	0.00296	mg/L	0.000186	6.27%
Cr 267.716†	27.8	0.00447	mg/L	0.000689	0.00447	mg/L	0.000689	15.42%
Cu 324.752†	541.8	0.00208	mg/L	0.000042	0.00208	mg/L	0.000042	2.04%
Fe 273.955†	70.8	0.05399	mg/L	0.001502	0.05399	mg/L	0.001502	2.78%
K 766.490†	998.9	0.5011	mg/L	0.00548	0.5011	mg/L	0.00548	1.09%
Mg 279.077†	80.8	0.05479	mg/L	0.002742	0.05479	mg/L	0.002742	5.00%
Mn 257.610†	31.1	0.00086	mg/L	0.000036	0.00086	mg/L	0.000036	4.23%
Mo 202.031†	104.7	0.00522	mg/L	0.000094	0.00522	mg/L	0.000094	1.80%
Na 589.592†	6003.1	0.4712	mg/L	0.00187	0.4712	mg/L	0.00187	0.40%
Na 330.237†	7.0	0.2434	mg/L	0.08368	0.2434	mg/L	0.08368	34.38%
Ni 231.604†	38.7	0.00941	mg/L	0.000812	0.00941	mg/L	0.000812	8.63%
Pb 220.353†	159.1	0.01990	mg/L	0.000201	0.01990	mg/L	0.000201	1.01%
Sb 206.836†	174.7	0.05345	mg/L	0.001079	0.05345	mg/L	0.001079	2.02%
Se 196.026†	76.9	0.05167	mg/L	0.002389	0.05167	mg/L	0.002389	4.62%
Si 288.158†	139.0	0.06454	mg/L	0.003275	0.06454	mg/L	0.003275	5.07%
Sn 189.927†	32.9	0.00847	mg/L	0.001308	0.00847	mg/L	0.001308	15.43%
Sr 421.552†	944.7	0.00101	mg/L	0.000032	0.00101	mg/L	0.000032	3.17%
Ti 334.903†	115.1	0.00551	mg/L	0.000574	0.00551	mg/L	0.000574	10.41%
Tl 190.801†	123.3	0.04819	mg/L	0.000503	0.04819	mg/L	0.000503	1.04%
V 292.402†	377.1	0.00290	mg/L	0.000117	0.00290	mg/L	0.000117	4.03%
Zn 206.200†	37.8	0.00931	mg/L	0.000286	0.00931	mg/L	0.000286	3.07%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/16/2012 9:17:44 AM
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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2190631.7	97.05	%	0.522				0.54%
ScR 361.383	272122.2	95.17	%	0.790				0.83%
Ag 328.068†	-126.8	-0.00071	mg/L	0.000216	-0.00071	mg/L	0.000216	30.24%
Al 308.215†	354369.7	199.0	mg/L	1.93	199.0	mg/L	1.93	0.97%
As 188.979†	37.4	0.01434	mg/L	0.004842	0.01434	mg/L	0.004842	33.76%
B 249.677†	-4.5	-0.00057	mg/L	0.001157	-0.00057	mg/L	0.001157	201.74%
Ba 233.527†	134.4	-0.00180	mg/L	0.001640	-0.00180	mg/L	0.001640	91.02%
Be 313.042†	120.9	0.00018	mg/L	0.000016	0.00018	mg/L	0.000016	8.99%
Ca 317.933†	1386218.1	97.59	mg/L	1.338	97.59	mg/L	1.338	1.37%
Cd 228.802†	52.6	-0.00030	mg/L	0.000127	-0.00030	mg/L	0.000127	42.56%
Co 228.616†	59.7	-0.00082	mg/L	0.000211	-0.00082	mg/L	0.000211	25.75%
Cr 267.716†	-0.1	-0.00223	mg/L	0.000855	-0.00223	mg/L	0.000855	38.27%
Cu 324.752†	-2019.9	-0.00015	mg/L	0.000123	-0.00015	mg/L	0.000123	83.50%
Fe 273.955†	251658.1	191.9	mg/L	1.82	191.9	mg/L	1.82	0.95%
K 766.490†	15.3	0.00769	mg/L	0.016333	0.00769	mg/L	0.016333	212.48%
Mg 279.077†	151274.0	102.5	mg/L	1.20	102.5	mg/L	1.20	1.17%
Mn 257.610†	20.7	0.00051	mg/L	0.000176	0.00051	mg/L	0.000176	34.16%
Mo 202.031†	46.0	0.00124	mg/L	0.000303	0.00124	mg/L	0.000303	24.42%
Na 589.592†	208.1	0.01633	mg/L	0.001390	0.01633	mg/L	0.001390	8.51%
Na 330.237†	-19.8	-0.6882	mg/L	0.05443	-0.6882	mg/L	0.05443	7.91%
Ni 231.604†	0.5	0.00013	mg/L	0.001338	0.00013	mg/L	0.001338	>999.9%
Pb 220.353†	-300.5	0.00217	mg/L	0.000584	0.00217	mg/L	0.000584	26.90%
Sb 206.836†	25.7	0.00772	mg/L	0.005252	0.00772	mg/L	0.005252	68.05%
Se 196.026†	25.1	0.01686	mg/L	0.002317	0.01686	mg/L	0.002317	13.74%
Si 288.158†	-30.2	-0.00162	mg/L	0.003162	-0.00162	mg/L	0.003162	195.03%
Sn 189.927†	-76.8	-0.00764	mg/L	0.001565	-0.00764	mg/L	0.001565	20.49%
Sr 421.552†	3622.8	0.00387	mg/L Conf.	0.000024	0.00387	mg/L	0.000024	0.61%
Ti 334.903†	152.9	0.00268	mg/L	0.000157	0.00268	mg/L	0.000157	5.86%
Tl 190.801†	-53.8	-0.00056	mg/L	0.002577	-0.00056	mg/L	0.002577	462.75%
V 292.402†	1360.9	0.00368	mg/L	0.000137	0.00368	mg/L	0.000137	3.73%
Zn 206.200†	16.8	0.00414	mg/L	0.000676	0.00414	mg/L	0.000676	16.33%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/16/2012 9:22:01 AM
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	2190888.4	97.06	%	0.945				0.97%
ScR 361.383	280553.1	98.12	%	1.630				1.66%
Ag 328.068†	174109.6	0.9855	mg/L	0.01251	0.9855	mg/L	0.01251	1.27%
Al 308.215†	345774.5	194.1	mg/L	3.64	194.1	mg/L	3.64	1.87%
As 188.979†	1856.0	0.9764	mg/L	0.00758	0.9764	mg/L	0.00758	0.78%
B 249.677†	4.4	-0.00148	mg/L	0.000384	-0.00148	mg/L	0.000384	25.84%
Ba 233.527†	4703.1	1.005	mg/L	0.0174	1.005	mg/L	0.0174	1.73%
Be 313.042†	621412.9	0.9342	mg/L	0.01515	0.9342	mg/L	0.01515	1.62%
Ca 317.933†	1384278.5	97.46	mg/L	1.849	97.46	mg/L	1.849	1.90%
Cd 228.802†	32640.6	1.023	mg/L	0.0103	1.023	mg/L	0.0103	1.01%
Co 228.616†	35083.8	0.9923	mg/L	0.00677	0.9923	mg/L	0.00677	0.68%
Cr 267.716†	6250.0	1.004	mg/L	0.0188	1.004	mg/L	0.0188	1.87%
Cu 324.752†	264088.7	1.023	mg/L	0.0118	1.023	mg/L	0.0118	1.15%
Fe 273.955†	250591.4	191.1	mg/L	3.79	191.1	mg/L	3.79	1.98%
K 766.490†	-57.9	-0.02907	mg/L	0.026894	-0.02907	mg/L	0.026894	92.50%
Mg 279.077†	144004.0	97.55	mg/L	1.854	97.55	mg/L	1.854	1.90%
Mn 257.610†	34625.5	0.9572	mg/L	0.01844	0.9572	mg/L	0.01844	1.93%
Mo 202.031†	39.2	0.00085	mg/L	0.000259	0.00085	mg/L	0.000259	30.55%
Na 589.592†	393.4	0.03087	mg/L	0.003439	0.03087	mg/L	0.003439	11.14%
Na 330.237†	-6.8	-0.5377	mg/L	0.12445	-0.5377	mg/L	0.12445	23.14%
Ni 231.604†	3861.8	0.9372	mg/L	0.01594	0.9372	mg/L	0.01594	1.70%
Pb 220.353†	7369.5	0.9602	mg/L	0.00787	0.9602	mg/L	0.00787	0.82%
Sb 206.836†	3346.2	1.013	mg/L	0.0073	1.013	mg/L	0.0073	0.72%
Se 196.026†	1441.3	0.9670	mg/L	0.00596	0.9670	mg/L	0.00596	0.62%
Si 288.158†	-35.4	-0.00092	mg/L	0.002202	-0.00092	mg/L	0.002202	238.98%
Sn 189.927†	-78.2	-0.00752	mg/L	0.001086	-0.00752	mg/L	0.001086	14.44%
Sr 421.552†	3451.0	0.00368	mg/L Conf.	0.000068	0.00368	mg/L	0.000068	1.83%
Ti 334.903†	142.2	0.00197	mg/L	0.000354	0.00197	mg/L	0.000354	17.98%
Tl 190.801†	2300.9	0.9111	mg/L	0.00358	0.9111	mg/L	0.00358	0.39%
V 292.402†	128370.6	0.9780	mg/L	0.01111	0.9780	mg/L	0.01111	1.14%
Zn 206.200†	3708.3	0.9147	mg/L	0.01559	0.9147	mg/L	0.01559	1.70%

Sequence No.: 6
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/16/2012 9:26:52 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	2252340.2	99.79	%	1.267				1.27%
ScR 361.383	280210.0	98.00	%	0.128				0.13%
Ag 328.068†	170394.8	0.9645	mg/L	0.01031	0.9645	mg/L	0.01031	1.07%
Al 308.215†	3796.5	2.098	mg/L	0.0465	2.098	mg/L	0.0465	2.22%
As 188.979†	3624.7	1.943	mg/L	0.0245	1.943	mg/L	0.0245	1.26%
B 249.677†	7600.7	0.9691	mg/L	0.00834	0.9691	mg/L	0.00834	0.86%
Ba 233.527†	4724.9	1.041	mg/L	0.0114	1.041	mg/L	0.0114	1.10%
Be 313.042†	624775.5	0.9393	mg/L	0.00408	0.9393	mg/L	0.00408	0.43%
Ca 317.933†	28107.5	1.979	mg/L	0.0536	1.979	mg/L	0.0536	2.71%
Cd 228.802†	32740.0	1.021	mg/L	0.0096	1.021	mg/L	0.0096	0.94%
Co 228.616†	36281.5	1.027	mg/L	0.0131	1.027	mg/L	0.0131	1.27%
Cr 267.716†	6427.3	1.034	mg/L	0.0105	1.034	mg/L	0.0105	1.01%
Cu 324.752†	257751.3	0.9908	mg/L	0.00855	0.9908	mg/L	0.00855	0.86%
Fe 273.955†	2794.7	2.125	mg/L	0.0446	2.125	mg/L	0.0446	2.10%
K 766.490†	39353.6	19.74	mg/L	0.168	19.74	mg/L	0.168	0.85%
Mg 279.077†	3061.6	2.083	mg/L	0.0247	2.083	mg/L	0.0247	1.19%
Mn 257.610†	35697.7	0.9871	mg/L	0.00445	0.9871	mg/L	0.00445	0.45%
Mo 202.031†	20351.2	1.014	mg/L	0.0141	1.014	mg/L	0.0141	1.39%
Na 589.592†	619955.6	48.66	mg/L	0.090	48.66	mg/L	0.090	0.18%
Na 330.237†	1493.2	51.86	mg/L	0.515	51.86	mg/L	0.515	0.99%
Ni 231.604†	4042.9	0.9813	mg/L	0.00733	0.9813	mg/L	0.00733	0.75%
Pb 220.353†	15832.2	1.980	mg/L	0.0261	1.980	mg/L	0.0261	1.32%
Sb 206.836†	6834.9	2.089	mg/L	0.0285	2.089	mg/L	0.0285	1.36%
Se 196.026†	2852.5	1.915	mg/L	0.0265	1.915	mg/L	0.0265	1.38%
Si 288.158†	4512.2	2.096	mg/L	0.0205	2.096	mg/L	0.0205	0.98%
Sn 189.927†	3879.2	0.9966	mg/L	0.01355	0.9966	mg/L	0.01355	1.36%
Sr 421.552†	887987.9	0.9479	mg/L	0.00441	0.9479	mg/L	0.00441	0.46%
Ti 334.903†	21042.2	1.008	mg/L	0.0048	1.008	mg/L	0.0048	0.48%
Tl 190.801†	4956.3	1.930	mg/L	0.0241	1.930	mg/L	0.0241	1.25%
V 292.402†	130347.7	0.9998	mg/L	0.00944	0.9998	mg/L	0.00944	0.94%
Zn 206.200†	4092.0	1.009	mg/L	0.0091	1.009	mg/L	0.0091	0.90%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 11/16/2012 9:31:45 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	215.0 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	2213341.6	98.06	%	0.553				0.56%
ScR 361.383	278537.1	97.41	%	0.507	.			0.52%
Ag 328.068†	10.1	0.00006	mg/L	0.000066	0.00006	mg/L	0.000066	115.23%
Al 308.215†	26.5	0.01485	mg/L	0.007996	0.01485	mg/L	0.007996	53.83%
As 188.979†	-1.6	-0.00086	mg/L	0.000829	-0.00086	mg/L	0.000829	96.37%
B 249.677†	12.2	0.00156	mg/L	0.000945	0.00156	mg/L	0.000945	60.64%
Ba 233.527†	-1.9	-0.00043	mg/L	0.000465	-0.00043	mg/L	0.000465	108.94%
Be 313.042†	124.3	0.00019	mg/L	0.000018	0.00019	mg/L	0.000018	9.73%
Ca 317.933†	76.5	0.00539	mg/L	0.000861	0.00539	mg/L	0.000861	15.99%
Cd 228.802†	-1.5	-0.00004	mg/L	0.000172	-0.00004	mg/L	0.000172	411.16%
Co 228.616†	-18.7	-0.00053	mg/L	0.000066	-0.00053	mg/L	0.000066	12.48%
Cr 267.716†	-10.8	-0.00174	mg/L	0.000634	-0.00174	mg/L	0.000634	36.45%
Cu 324.752†	58.6	0.00023	mg/L	0.000092	0.00023	mg/L	0.000092	40.94%
Fe 273.955†	13.0	0.00995	mg/L	0.000573	0.00995	mg/L	0.000573	5.76%
K 766.490†	16.7	0.00837	mg/L	0.009145	0.00837	mg/L	0.009145	109.22%
Mg 279.077†	12.3	0.00835	mg/L	0.003074	0.00835	mg/L	0.003074	36.82%
Mn 257.610†	-2.6	-0.00007	mg/L	0.000109	-0.00007	mg/L	0.000109	153.26%
Mo 202.031†	18.0	0.00090	mg/L	0.000213	0.00090	mg/L	0.000213	23.74%
Na 589.592†	82.8	0.00650	mg/L	0.004130	0.00650	mg/L	0.004130	63.56%
Na 330.237†	-17.5	-0.6092	mg/L	0.11089	-0.6092	mg/L	0.11089	18.20%
Ni 231.604†	0.3	0.00009	mg/L	0.001926	0.00009	mg/L	0.001926	>999.9%
Pb 220.353†	3.0	0.00038	mg/L	0.001361	0.00038	mg/L	0.001361	359.60%
Sb 206.836†	12.0	0.00368	mg/L	0.000378	0.00368	mg/L	0.000378	10.29%
Se 196.026†	3.9	0.00260	mg/L	0.005079	0.00260	mg/L	0.005079	195.50%
Si 288.158†	0.1	0.00007	mg/L	0.002269	0.00007	mg/L	0.002269	>999.9%
Sn 189.927†	-3.1	-0.00079	mg/L	0.000775	-0.00079	mg/L	0.000775	98.02%
Sr 421.552†	93.8	0.00010	mg/L	0.000004	0.00010	mg/L	0.000004	4.49%
Ti 334.903†	8.6	0.00041	mg/L	0.000041	0.00041	mg/L	0.000041	9.99%
Tl 190.801†	1.1	0.00045	mg/L	0.001014	0.00045	mg/L	0.001014	224.76%
V 292.402†	-22.4	-0.00018	mg/L	0.000205	-0.00018	mg/L	0.000205	114.77%
Zn 206.200†	2.4	0.00060	mg/L	0.000874	0.00060	mg/L	0.000874	145.52%

Sequence No.: 8
Sample ID: VR30 B SWC

Autosampler Location: 304
Date Collected: 11/16/2012 9:36:01 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR30 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR30 B SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2266905.1	100.4	%	0.27				0.27%
ScR 361.383	289782.5	101.3	%	1.06				1.04%
Ag 328.068†	-170.5	-0.00091	mg/L	0.000144	-0.00456	mg/L	0.000721	15.82%
Al 308.215†	162648.8	91.33	mg/L	0.923	456.6	mg/L	4.61	1.01%
As 188.979†	43.3	0.06856	mg/L	0.000959	0.3428	mg/L	0.00479	1.40%
B 249.677†	34.4	0.00426	mg/L	0.001057	0.02132	mg/L	0.005286	24.80%
Ba 233.527†	19790.3	4.337	mg/L	0.0357	21.68	mg/L	0.179	0.82%
Be 313.042†	3080.4	0.00458	mg/L	0.000094	0.02288	mg/L	0.000469	2.05%
Ca 317.933†	413333.6	29.10	mg/L	0.312	145.5	mg/L	1.56	1.07%
Cd 228.802†	319.3	0.00847	mg/L	0.000204	0.04236	mg/L	0.001020	2.41%
Co 228.616†	2197.9	0.05672	mg/L	0.000438	0.2836	mg/L	0.00219	0.77%
Cr 267.716†	667.9	0.1104	mg/L	0.00120	0.5520	mg/L	0.00598	1.08%
Cu 324.752†	17950.1	0.07548	mg/L	0.000282	0.3774	mg/L	0.00141	0.37%
Fe 273.955†	207489.5	158.3	mg/L	1.90	791.3	mg/L	9.48	1.20%
K 766.490†	14039.4	7.044	mg/L	0.0813	35.22	mg/L	0.406	1.15%
Mg 279.077†	37594.5	25.41	mg/L	0.284	127.0	mg/L	1.42	1.12%
Mn 257.610†	328609.6	9.083	mg/L	0.1096	45.42	mg/L	0.548	1.21%
Mo 202.031†	90.3	0.00418	mg/L	0.000481	0.02090	mg/L	0.002403	11.49%
Na 589.592†	5621.5	0.4412	mg/L	0.00457	2.206	mg/L	0.0228	1.03%
Na 330.237†	-5.5	-0.07749	mg/L	0.151056	-0.3875	mg/L	0.75528	194.93%
Ni 231.604†	297.6	0.07221	mg/L	0.001673	0.3611	mg/L	0.00836	2.32%
Pb 220.353†	2347.5	0.3088	mg/L	0.00255	1.544	mg/L	0.0127	0.82%
Sb 206.836†	26.8	0.00801	mg/L	0.000467	0.04004	mg/L	0.002333	5.83%
Se 196.026†	16.3	0.01078	mg/L	0.004755	0.05392	mg/L	0.023776	44.10%
Si 288.158†	3340.8	1.555	mg/L	0.0200	7.777	mg/L	0.1001	1.29%
Sn 189.927†	-44.4	-0.00755	mg/L	0.000500	-0.03774	mg/L	0.002499	6.62%
Sr 421.552†	213985.5	0.2284	mg/L	0.00232	1.142	mg/L	0.0116	1.01%
Ti 334.903†	34546.6	1.656	mg/L	0.0190	8.281	mg/L	0.0949	1.15%
Tl 190.801†	-37.1	0.00141	mg/L	0.002325	0.00703	mg/L	0.011623	165.25%
V 292.402†	23994.9	0.1786	mg/L	0.00178	0.8930	mg/L	0.00888	0.99%
Zn 206.200†	3237.8	0.7987	mg/L	0.01198	3.993	mg/L	0.0599	1.50%

Sequence No.: 9
Sample ID: VR30 D SWC

Autosampler Location: 305
Date Collected: 11/16/2012 9:40:04 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR30 D SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: VR30 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2278324.3	100.9	%	0.13				0.13%
ScR 361.383	289032.3	101.1	%	0.60				0.59%
Ag 328.068†	-143.4	-0.00077	mg/L	0.000275	-0.00383	mg/L	0.001374	35.87%
Al 308.215†	202390.7	113.6	mg/L	1.13	568.2	mg/L	5.65	1.00%
As 188.979†	-78.3	0.04162	mg/L	0.003479	0.2081	mg/L	0.01740	8.36%
B 249.677†	75.1	0.00950	mg/L	0.000729	0.04749	mg/L	0.003647	7.68%
Ba 233.527†	7044.7	1.538	mg/L	0.0050	7.688	mg/L	0.0248	0.32%
Be 313.042†	2287.1	0.00337	mg/L	0.000038	0.01686	mg/L	0.000188	1.11%
Ca 317.933†	316955.2	22.31	mg/L	0.261	111.6	mg/L	1.31	1.17%
Cd 228.802†	170.4	0.00484	mg/L	0.000162	0.02418	mg/L	0.000811	3.35%
Co 228.616†	1530.3	0.03634	mg/L	0.000259	0.1817	mg/L	0.00130	0.71%
Cr 267.716†	677.4	0.1101	mg/L	0.00083	0.5504	mg/L	0.00414	0.75%
Cu 324.752†	22713.0	0.09068	mg/L	0.000915	0.4534	mg/L	0.00458	1.01%
Fe 273.955†	122919.1	93.75	mg/L	0.757	468.7	mg/L	3.78	0.81%
K 766.490†	10663.0	5.350	mg/L	0.0506	26.75	mg/L	0.253	0.95%
Mg 279.077†	36162.3	24.47	mg/L	0.235	122.4	mg/L	1.17	0.96%
Mn 257.610†	117928.4	3.260	mg/L	0.0282	16.30	mg/L	0.141	0.87%
Mo 202.031†	50.0	0.00224	mg/L	0.000279	0.01122	mg/L	0.001396	12.44%
Na 589.592†	10175.1	0.7986	mg/L	0.00830	3.993	mg/L	0.0415	1.04%
Na 330.237†	-3.2	0.3999	mg/L	0.12593	1.999	mg/L	0.6297	31.49%
Ni 231.604†	374.6	0.09089	mg/L	0.001860	0.4545	mg/L	0.00930	2.05%
Pb 220.353†	2020.7	0.2760	mg/L	0.00190	1.380	mg/L	0.0095	0.69%
Sb 206.836†	4.1	0.00152	mg/L	0.002680	0.00758	mg/L	0.013399	176.83%
Se 196.026†	19.3	0.01286	mg/L	0.003491	0.06428	mg/L	0.017453	27.15%
Si 288.158†	2012.7	0.9381	mg/L	0.00831	4.691	mg/L	0.0416	0.89%
Sn 189.927†	-35.4	-0.00589	mg/L	0.000936	-0.02943	mg/L	0.004678	15.90%
Sr 421.552†	256275.4	0.2736	mg/L	0.00281	1.368	mg/L	0.0140	1.03%
Ti 334.903†	61510.5	2.950	mg/L	0.0262	14.75	mg/L	0.131	0.89%
Tl 190.801†	-15.9	0.00298	mg/L	0.001542	0.01491	mg/L	0.007708	51.69%
V 292.402†	20627.2	0.1535	mg/L	0.00173	0.7677	mg/L	0.00863	1.12%
Zn 206.200†	1977.1	0.4877	mg/L	0.00234	2.439	mg/L	0.0117	0.48%

Sequence No.: 10
Sample ID: VR30 E SWC

Autosampler Location: 306
Date Collected: 11/16/2012 9:44:05 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR30 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR30 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2311384.2	102.4	%	0.49				0.48%
ScR 361.383	292296.6	102.2	%	0.90				0.88%
Ag 328.068†	-158.6	-0.00084	mg/L	0.000344	-0.00421	mg/L	0.001718	40.78%
Al 308.215†	240475.3	135.0	mg/L	1.32	675.1	mg/L	6.59	0.98%
As 188.979†	-127.2	0.03169	mg/L	0.002950	0.1585	mg/L	0.01475	9.31%
B 249.677†	62.6	0.00788	mg/L	0.000863	0.03942	mg/L	0.004317	10.95%
Ba 233.527†	6971.3	1.519	mg/L	0.0137	7.594	mg/L	0.0685	0.90%
Be 313.042†	2594.1	0.00382	mg/L	0.000047	0.01910	mg/L	0.000233	1.22%
Ca 317.933†	218878.8	15.41	mg/L	0.157	77.05	mg/L	0.783	1.02%
Cd 228.802†	63.8	0.00150	mg/L	0.000182	0.00749	mg/L	0.000908	12.12%
Co 228.616†	1830.0	0.04358	mg/L	0.000563	0.2179	mg/L	0.00281	1.29%
Cr 267.716†	708.5	0.1157	mg/L	0.00192	0.5784	mg/L	0.00958	1.66%
Cu 324.752†	26515.0	0.1059	mg/L	0.00110	0.5294	mg/L	0.00550	1.04%
Fe 273.955†	143936.1	109.8	mg/L	1.24	548.9	mg/L	6.21	1.13%
K 766.490†	11246.5	5.643	mg/L	0.0386	28.21	mg/L	0.193	0.68%
Mg 279.077†	39859.6	26.97	mg/L	0.262	134.9	mg/L	1.31	0.97%
Mn 257.610†	62486.0	1.727	mg/L	0.0192	8.635	mg/L	0.0959	1.11%
Mo 202.031†	31.2	0.00138	mg/L	0.000182	0.00692	mg/L	0.000908	13.12%
Na 589.592†	12027.3	0.9440	mg/L	0.01222	4.720	mg/L	0.0611	1.29%
Na 330.237†	-8.2	0.3827	mg/L	0.17400	1.913	mg/L	0.8700	45.47%
Ni 231.604†	417.3	0.1013	mg/L	0.00226	0.5063	mg/L	0.01128	2.23%
Pb 220.353†	422.7	0.08070	mg/L	0.000817	0.4035	mg/L	0.00408	1.01%
Sb 206.836†	4.8	0.00203	mg/L	0.002279	0.01013	mg/L	0.011394	112.52%
Se 196.026†	22.1	0.01469	mg/L	0.002003	0.07343	mg/L	0.010016	13.64%
Si 288.158†	1514.3	0.7069	mg/L	0.00805	3.534	mg/L	0.0403	1.14%
Sn 189.927†	-30.3	-0.00535	mg/L	0.000385	-0.02676	mg/L	0.001923	7.19%
Sr 421.552†	164339.3	0.1754	mg/L	0.00187	0.8772	mg/L	0.00933	1.06%
Ti 334.903†	72845.9	3.495	mg/L	0.0345	17.47	mg/L	0.172	0.99%
Tl 190.801†	-27.4	0.00002	mg/L	0.002025	0.00012	mg/L	0.010127	>999.9%
V 292.402†	24789.3	0.1842	mg/L	0.00209	0.9212	mg/L	0.01046	1.14%
Zn 206.200†	1558.1	0.3843	mg/L	0.00293	1.922	mg/L	0.0147	0.76%

Sequence No.: 11
Sample ID: VR30 F SWC

Autosampler Location: 307
Date Collected: 11/16/2012 9:48:06 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR30 F SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VR30 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2335671.1	103.5	%	0.57				0.56%
ScR 361.383	295425.7	103.3	%	0.36				0.35%
Ag 328.068†	-123.7	-0.00065	mg/L	0.000122	-0.00325	mg/L	0.000608	18.72%
Al 308.215†	243146.9	136.5	mg/L	1.55	682.6	mg/L	7.75	1.14%
As 188.979†	-124.0	0.03516	mg/L	0.003806	0.1758	mg/L	0.01903	10.83%
B 249.677†	52.3	0.00658	mg/L	0.000314	0.03288	mg/L	0.001572	4.78%
Ba 233.527†	5947.7	1.294	mg/L	0.0080	6.468	mg/L	0.0399	0.62%
Be 313.042†	2624.1	0.00387	mg/L	0.000009	0.01934	mg/L	0.000043	0.22%
Ca 317.933†	198838.3	14.00	mg/L	0.147	69.99	mg/L	0.734	1.05%
Cd 228.802†	65.4	0.00157	mg/L	0.000171	0.00786	mg/L	0.000854	10.85%
Co 228.616†	1760.4	0.04156	mg/L	0.000875	0.2078	mg/L	0.00438	2.11%
Cr 267.716†	714.1	0.1165	mg/L	0.00089	0.5825	mg/L	0.00445	0.76%
Cu 324.752†	28865.0	0.1147	mg/L	0.00267	0.5737	mg/L	0.01336	2.33%
Fe 273.955†	139042.8	106.0	mg/L	0.68	530.2	mg/L	3.39	0.64%
K 766.490†	11233.6	5.636	mg/L	0.0632	28.18	mg/L	0.316	1.12%
Mg 279.077†	38352.7	25.95	mg/L	0.216	129.8	mg/L	1.08	0.83%
Mn 257.610†	73481.2	2.031	mg/L	0.0163	10.15	mg/L	0.081	0.80%
Mo 202.031†	25.7	0.00113	mg/L	0.000660	0.00563	mg/L	0.003301	58.66%
Na 589.592†	12361.3	0.9702	mg/L	0.01292	4.851	mg/L	0.0646	1.33%
Na 330.237†	-3.6	0.5544	mg/L	0.07014	2.772	mg/L	0.3507	12.65%
Ni 231.604†	416.3	0.1010	mg/L	0.00188	0.5051	mg/L	0.00939	1.86%
Pb 220.353†	313.0	0.06748	mg/L	0.001074	0.3374	mg/L	0.00537	1.59%
Sb 206.836†	5.3	0.00213	mg/L	0.001072	0.01064	mg/L	0.005358	50.35%
Se 196.026†	22.5	0.01499	mg/L	0.004442	0.07497	mg/L	0.022212	29.63%
Si 288.158†	1302.0	0.6081	mg/L	0.00665	3.041	mg/L	0.0333	1.09%
Sn 189.927†	-26.8	-0.00464	mg/L	0.001177	-0.02322	mg/L	0.005884	25.34%
Sr 421.552†	170535.5	0.1821	mg/L	0.00217	0.9103	mg/L	0.01084	1.19%
Ti 334.903†	74072.0	3.553	mg/L	0.0371	17.77	mg/L	0.186	1.04%
Tl 190.801†	-24.7	0.00076	mg/L	0.002734	0.00382	mg/L	0.013671	358.34%
V 292.402†	22669.5	0.1682	mg/L	0.00328	0.8410	mg/L	0.01640	1.95%
Zn 206.200†	1583.3	0.3905	mg/L	0.00192	1.953	mg/L	0.0096	0.49%

Sequence No.: 12
Sample ID: VR30 G SWC

Autosampler Location: 308
Date Collected: 11/16/2012 9:52:07 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR30 G SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR30 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2282264.3	101.1	%	0.28				0.28%
ScR 361.383	294092.7	102.9	%	1.17				1.14%
Ag 328.068†	154.9	0.00093	mg/L	0.000133	0.00466	mg/L	0.000666	14.28%
Al 308.215†	259195.3	145.5	mg/L	1.35	727.7	mg/L	6.77	0.93%
As 188.979†	-133.3	0.03835	mg/L	0.001463	0.1917	mg/L	0.00732	3.82%
B 249.677†	54.6	0.00686	mg/L	0.000813	0.03428	mg/L	0.004063	11.85%
Ba 233.527†	5452.1	1.183	mg/L	0.0098	5.917	mg/L	0.0489	0.83%
Be 313.042†	2750.3	0.00405	mg/L	0.000054	0.02025	mg/L	0.000272	1.35%
Ca 317.933†	226126.0	15.92	mg/L	0.151	79.60	mg/L	0.757	0.95%
Cd 228.802†	57.1	0.00130	mg/L	0.000018	0.00649	mg/L	0.000091	1.40%
Co 228.616†	1882.9	0.04439	mg/L	0.000381	0.2220	mg/L	0.00191	0.86%
Cr 267.716†	1027.6	0.1670	mg/L	0.00182	0.8349	mg/L	0.00912	1.09%
Cu 324.752†	39506.5	0.1559	mg/L	0.00068	0.7794	mg/L	0.00342	0.44%
Fe 273.955†	147721.2	112.7	mg/L	0.84	563.3	mg/L	4.18	0.74%
K 766.490†	11750.0	5.895	mg/L	0.0618	29.48	mg/L	0.309	1.05%
Mg 279.077†	42799.3	28.96	mg/L	0.258	144.8	mg/L	1.29	0.89%
Mn 257.610†	66779.2	1.846	mg/L	0.0135	9.229	mg/L	0.0674	0.73%
Mo 202.031†	34.3	0.00153	mg/L	0.000201	0.00764	mg/L	0.001004	13.14%
Na 589.592†	14629.0	1.148	mg/L	0.0103	5.741	mg/L	0.0517	0.90%
Na 330.237†	-4.2	0.6052	mg/L	0.01543	3.026	mg/L	0.0771	2.55%
Ni 231.604†	502.6	0.1220	mg/L	0.00241	0.6098	mg/L	0.01207	1.98%
Pb 220.353†	408.1	0.08130	mg/L	0.001102	0.4065	mg/L	0.00551	1.36%
Sb 206.836†	5.5	0.00165	mg/L	0.002497	0.00823	mg/L	0.012483	151.72%
Se 196.026†	33.0	0.02201	mg/L	0.004233	0.1100	mg/L	0.02116	19.23%
Si 288.158†	1008.6	0.4721	mg/L	0.00726	2.361	mg/L	0.0363	1.54%
Sn 189.927†	-35.7	-0.00664	mg/L	0.000881	-0.03319	mg/L	0.004404	13.27%
Sr 421.552†	198112.6	0.2115	mg/L	0.00183	1.057	mg/L	0.0092	0.87%
Ti 334.903†	80106.7	3.843	mg/L	0.0309	19.21	mg/L	0.154	0.80%
Tl 190.801†	-34.4	-0.00245	mg/L	0.003700	-0.01226	mg/L	0.018500	150.95%
V 292.402†	25520.1	0.1898	mg/L	0.00102	0.9488	mg/L	0.00509	0.54%
Zn 206.200†	1509.9	0.3724	mg/L	0.00300	1.862	mg/L	0.0150	0.81%

Sequence No.: 13
Sample ID: VR30 H SWC

Autosampler Location: 309
Date Collected: 11/16/2012 9:56:08 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR30 H SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VR30 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2304118.0	102.1	%	0.36				0.35%
ScR 361.383	292173.5	102.2	%	0.43				0.42%
Ag 328.068†	-26.8	-0.00011	mg/L	0.000153	-0.00056	mg/L	0.000767	137.32%
Al 308.215†	182483.0	102.5	mg/L	0.90	512.3	mg/L	4.51	0.88%
As 188.979†	-86.8	0.03301	mg/L	0.003044	0.1651	mg/L	0.01522	9.22%
B 249.677†	56.6	0.00714	mg/L	0.000636	0.03572	mg/L	0.003182	8.91%
Ba 233.527†	8522.4	1.865	mg/L	0.0101	9.324	mg/L	0.0507	0.54%
Be 313.042†	1982.1	0.00292	mg/L	0.000037	0.01460	mg/L	0.000184	1.26%
Ca 317.933†	200605.4	14.12	mg/L	0.067	70.62	mg/L	0.337	0.48%
Cd 228.802†	142.9	0.00408	mg/L	0.000100	0.02041	mg/L	0.000498	2.44%
Co 228.616†	1380.0	0.03248	mg/L	0.000055	0.1624	mg/L	0.00027	0.17%
Cr 267.716†	619.7	0.1012	mg/L	0.00056	0.5058	mg/L	0.00278	0.55%
Cu 324.752†	14634.6	0.05931	mg/L	0.000195	0.2966	mg/L	0.00098	0.33%
Fe 273.955†	111084.1	84.72	mg/L	0.895	423.6	mg/L	4.47	1.06%
K 766.490†	11432.8	5.736	mg/L	0.0169	28.68	mg/L	0.085	0.30%
Mg 279.077†	24568.5	16.62	mg/L	0.121	83.08	mg/L	0.606	0.73%
Mn 257.610†	126564.1	3.498	mg/L	0.0331	17.49	mg/L	0.166	0.95%
Mo 202.031†	36.8	0.00168	mg/L	0.000151	0.00839	mg/L	0.000757	9.02%
Na 589.592†	9746.1	0.7649	mg/L	0.00707	3.825	mg/L	0.0354	0.92%
Na 330.237†	-3.3	0.3435	mg/L	0.17601	1.717	mg/L	0.8801	51.25%
Ni 231.604†	365.8	0.08876	mg/L	0.001396	0.4438	mg/L	0.00698	1.57%
Pb 220.353†	1019.0	0.1485	mg/L	0.00129	0.7425	mg/L	0.00646	0.87%
Sb 206.836†	7.4	0.00251	mg/L	0.001512	0.01254	mg/L	0.007558	60.27%
Se 196.026†	17.1	0.01136	mg/L	0.000712	0.05681	mg/L	0.003560	6.27%
Si 288.158†	3243.5	1.509	mg/L	0.0108	7.545	mg/L	0.0539	0.71%
Sn 189.927†	-29.3	-0.00536	mg/L	0.000912	-0.02682	mg/L	0.004560	17.01%
Sr 421.552†	164364.3	0.1755	mg/L	0.00133	0.8773	mg/L	0.00665	0.76%
Ti 334.903†	58175.4	2.791	mg/L	0.0237	13.95	mg/L	0.119	0.85%
Tl 190.801†	-17.9	0.00134	mg/L	0.000928	0.00671	mg/L	0.004642	69.21%
V 292.402†	18134.9	0.1349	mg/L	0.00040	0.6745	mg/L	0.00200	0.30%
Zn 206.200†	2160.2	0.5329	mg/L	0.00349	2.664	mg/L	0.0174	0.65%

Sequence No.: 14
Sample ID: CV 2

Autosampler Location: 7
Date Collected: 11/16/2012 10:00:09 AM
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	2211042.3	97.96	%	0.069				0.07%
ScR 361.383	281425.6	98.42	%	1.154				1.17%
Ag 328.068†	174051.3	0.9852	mg/L	0.00100	0.9852	mg/L	0.00100	0.10%
Al 308.215†	3696.9	2.041	mg/L	0.0284	2.041	mg/L	0.0284	1.39%
As 188.979†	3657.6	1.961	mg/L	0.0138	1.961	mg/L	0.0138	0.70%
B 249.677†	7567.5	0.9649	mg/L	0.01213	0.9649	mg/L	0.01213	1.26%
Ba 233.527†	4721.2	1.040	mg/L	0.0139	1.040	mg/L	0.0139	1.34%
Be 313.042†	626887.5	0.9424	mg/L	0.00875	0.9424	mg/L	0.00875	0.93%
Ca 317.933†	27675.8	1.948	mg/L	0.0181	1.948	mg/L	0.0181	0.93%
Cd 228.802†	33109.2	1.033	mg/L	0.0016	1.033	mg/L	0.0016	0.15%
Co 228.616†	35891.2	1.016	mg/L	0.0028	1.016	mg/L	0.0028	0.27%
Cr 267.716†	6399.9	1.030	mg/L	0.0131	1.030	mg/L	0.0131	1.27%
Cu 324.752†	262871.7	1.010	mg/L	0.0029	1.010	mg/L	0.0029	0.29%
Fe 273.955†	2689.1	2.044	mg/L	0.0153	2.044	mg/L	0.0153	0.75%
K 766.490†	39762.4	19.95	mg/L	0.215	19.95	mg/L	0.215	1.08%
Mg 279.077†	3000.3	2.042	mg/L	0.0213	2.042	mg/L	0.0213	1.04%
Mn 257.610†	35687.8	0.9868	mg/L	0.00584	0.9868	mg/L	0.00584	0.59%
Mo 202.031†	20686.3	1.031	mg/L	0.0051	1.031	mg/L	0.0051	0.50%
Na 589.592†	624588.1	49.02	mg/L	0.566	49.02	mg/L	0.566	1.16%
Na 330.237†	1491.7	51.81	mg/L	0.515	51.81	mg/L	0.515	0.99%
Ni 231.604†	4026.4	0.9773	mg/L	0.01189	0.9773	mg/L	0.01189	1.22%
Pb 220.353†	16046.0	2.006	mg/L	0.0116	2.006	mg/L	0.0116	0.58%
Sb 206.836†	6936.1	2.120	mg/L	0.0113	2.120	mg/L	0.0113	0.53%
Se 196.026†	2873.6	1.929	mg/L	0.0077	1.929	mg/L	0.0077	0.40%
Si 288.158†	4492.6	2.087	mg/L	0.0245	2.087	mg/L	0.0245	1.17%
Sn 189.927†	3917.5	1.006	mg/L	0.0067	1.006	mg/L	0.0067	0.67%
Sr 421.552†	893900.0	0.9543	mg/L	0.00885	0.9543	mg/L	0.00885	0.93%
Ti 334.903†	21172.9	1.015	mg/L	0.0086	1.015	mg/L	0.0086	0.85%
Tl 190.801†	5037.5	1.962	mg/L	0.0100	1.962	mg/L	0.0100	0.51%
V 292.402†	132402.6	1.016	mg/L	0.0017	1.016	mg/L	0.0017	0.16%
Zn 206.200†	4049.1	0.9986	mg/L	0.00989	0.9986	mg/L	0.00989	0.99%

Sequence No.: 15
Sample ID: CB 2

Autosampler Location: 1
Date Collected: 11/16/2012 10:05:01 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	2265302.0	100.4	%	0.82				0.82%
ScR 361.383	286386.1	100.2	%	1.19				1.19%
Ag 328.068†	43.5	0.00025	mg/L	0.000120	0.00025	mg/L	0.000120	48.67%
Al 308.215†	21.7	0.01219	mg/L	0.007834	0.01219	mg/L	0.007834	64.25%
As 188.979†	0.3	0.00019	mg/L	0.000600	0.00019	mg/L	0.000600	312.17%
B 249.677†	12.0	0.00153	mg/L	0.000504	0.00153	mg/L	0.000504	32.86%
Ba 233.527†	-1.7	-0.00038	mg/L	0.000659	-0.00038	mg/L	0.000659	173.90%
Be 313.042†	64.0	0.00010	mg/L	0.000019	0.00010	mg/L	0.000019	19.48%
Ca 317.933†	16.5	0.00116	mg/L	0.000843	0.00116	mg/L	0.000843	72.42%
Cd 228.802†	-8.9	-0.00028	mg/L	0.000164	-0.00028	mg/L	0.000164	58.05%
Co 228.616†	-15.4	-0.00044	mg/L	0.000071	-0.00044	mg/L	0.000071	16.37%
Cr 267.716†	-8.6	-0.00139	mg/L	0.000844	-0.00139	mg/L	0.000844	60.74%
Cu 324.752†	68.6	0.00026	mg/L	0.000163	0.00026	mg/L	0.000163	61.90%
Fe 273.955†	5.6	0.00430	mg/L	0.000901	0.00430	mg/L	0.000901	20.97%
K 766.490†	18.2	0.00913	mg/L	0.009749	0.00913	mg/L	0.009749	106.78%
Mg 279.077†	0.3	0.00020	mg/L	0.005138	0.00020	mg/L	0.005138	>999.9%
Mn 257.610†	-7.6	-0.00021	mg/L	0.000032	-0.00021	mg/L	0.000032	15.24%
Mo 202.031†	19.2	0.00096	mg/L	0.000202	0.00096	mg/L	0.000202	21.17%
Na 589.592†	39.1	0.00307	mg/L	0.003488	0.00307	mg/L	0.003488	113.79%
Na 330.237†	-5.3	-0.1843	mg/L	0.30022	-0.1843	mg/L	0.30022	162.93%
Ni 231.604†	-1.2	-0.00029	mg/L	0.000758	-0.00029	mg/L	0.000758	263.29%
Pb 220.353†	-0.0	-0.00000	mg/L	0.000645	-0.00000	mg/L	0.000645	>999.9%
Sb 206.836†	5.6	0.00173	mg/L	0.000288	0.00173	mg/L	0.000288	16.60%
Se 196.026†	5.5	0.00369	mg/L	0.002885	0.00369	mg/L	0.002885	78.20%
Si 288.158†	-4.6	-0.00215	mg/L	0.000930	-0.00215	mg/L	0.000930	43.21%
Sn 189.927†	-0.1	-0.00004	mg/L	0.000153	-0.00004	mg/L	0.000153	422.92%
Sr 421.552†	74.2	0.00008	mg/L	0.000064	0.00008	mg/L	0.000064	81.28%
Ti 334.903†	13.8	0.00066	mg/L	0.000293	0.00066	mg/L	0.000293	44.17%
Tl 190.801†	3.8	0.00148	mg/L	0.002469	0.00148	mg/L	0.002469	166.41%
V 292.402†	-13.7	-0.00011	mg/L	0.000165	-0.00011	mg/L	0.000165	148.94%
Zn 206.200†	0.1	0.00001	mg/L	0.000819	0.00001	mg/L	0.000819	>999.9%

Sequence No.: 16
Sample ID: VR32 A-L SWC

Autosampler Location: 310
Date Collected: 11/16/2012 10:09:17 AM
Data Type: Original

Dilution: ~~5.000000X~~
25 BA 11/16/12

Nebulizer Parameters: VR32 A-L SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VR32 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2263964.5	100.3	%	1.16				1.16%
ScR 361.383	289102.2	101.1	%	1.21				1.20%
Ag 328.068†	1.8	0.00002	mg/L	0.000139	0.00009	mg/L	0.000697	766.84%
Al 308.215†	35071.1	19.69	mg/L	0.251	98.46	mg/L	1.256	1.28%
As 188.979†	-6.8	0.01278	mg/L	0.001588	0.06388	mg/L	0.007941	12.43%
B 249.677†	16.0	0.00202	mg/L	0.000804	0.01011	mg/L	0.004018	39.73%
Ba 233.527†	1517.2	0.3312	mg/L	0.00507	1.656	mg/L	0.0253	1.53%
Be 313.042†	477.1	0.00070	mg/L	0.000016	0.00352	mg/L	0.000078	2.20%
Ca 317.933†	53929.3	3.797	mg/L	0.0476	18.98	mg/L	0.238	1.25%
Cd 228.802†	51.9	0.00150	mg/L	0.000067	0.00748	mg/L	0.000336	4.49%
Co 228.616†	318.2	0.00762	mg/L	0.000172	0.03808	mg/L	0.000858	2.25%
Cr 267.716†	172.9	0.02808	mg/L	0.000513	0.1404	mg/L	0.00257	1.83%
Cu 324.752†	3757.1	0.01517	mg/L	0.000277	0.07583	mg/L	0.001386	1.83%
Fe 273.955†	25985.8	19.82	mg/L	0.298	99.10	mg/L	1.488	1.50%
K 766.490†	3537.6	1.775	mg/L	0.0078	8.874	mg/L	0.0392	0.44%
Mg 279.077†	6835.6	4.625	mg/L	0.0727	23.12	mg/L	0.364	1.57%
Mn 257.610†	34973.5	0.9667	mg/L	0.01391	4.833	mg/L	0.0696	1.44%
Mo 202.031†	14.8	0.00069	mg/L	0.000185	0.00347	mg/L	0.000926	26.67%
Na 589.592†	2333.0	0.1831	mg/L	0.00242	0.9156	mg/L	0.01208	1.32%
Na 330.237†	-7.3	-0.1758	mg/L	0.12318	-0.8792	mg/L	0.61592	70.05%
Ni 231.604†	106.2	0.02576	mg/L	0.001486	0.1288	mg/L	0.00743	5.77%
Pb 220.353†	344.1	0.04693	mg/L	0.000479	0.2346	mg/L	0.00240	1.02%
Sb 206.836†	2.8	0.00079	mg/L	0.002290	0.00394	mg/L	0.011451	290.68%
Se 196.026†	7.5	0.00503	mg/L	0.000195	0.02515	mg/L	0.000974	3.87%
Si 288.158†	610.3	0.2842	mg/L	0.00735	1.421	mg/L	0.0367	2.59%
Sn 189.927†	-15.2	-0.00333	mg/L	0.000876	-0.01667	mg/L	0.004380	26.27%
Sr 421.552†	49479.6	0.05282	mg/L	0.000685	0.2641	mg/L	0.00343	1.30%
Ti 334.903†	12091.4	0.5800	mg/L	0.00664	2.900	mg/L	0.0332	1.14%
Tl 190.801†	-4.1	0.00038	mg/L	0.001668	0.00189	mg/L	0.008338	442.25%
V 292.402†	3634.0	0.02700	mg/L	0.000188	0.1350	mg/L	0.00094	0.70%
Zn 206.200†	643.0	0.1586	mg/L	0.00272	0.7930	mg/L	0.01358	1.71%

Sequence No.: 17
Sample ID: VR32 A SWC

Autosampler Location: 311
Date Collected: 11/16/2012 10:13:18 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR32 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR32 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2294229.4	101.6	%	0.46				0.45%
ScR 361.383	295890.1	103.5	%	0.43				0.41%
Ag 328.068†	-156.2	-0.00084	mg/L	0.000165	-0.00422	mg/L	0.000823	19.50%
Al 308.215†	177445.1	99.63	mg/L	0.360	498.2	mg/L	1.80	0.36%
As 188.979†	-27.6	0.06704	mg/L	0.003549	0.3352	mg/L	0.01774	5.29%
B 249.677†	73.7	0.00931	mg/L	0.000509	0.04654	mg/L	0.002545	5.47%
Ba 233.527†	7580.0	1.654	mg/L	0.0060	8.272	mg/L	0.0300	0.36%
Be 313.042†	2081.1	0.00307	mg/L	0.000006	0.01533	mg/L	0.000032	0.21%
Ca 317.933†	274913.4	19.35	mg/L	0.161	96.77	mg/L	0.804	0.83%
Cd 228.802†	304.1	0.00885	mg/L	0.000145	0.04426	mg/L	0.000726	1.64%
Co 228.616†	1656.8	0.03993	mg/L	0.000312	0.1997	mg/L	0.00156	0.78%
Cr 267.716†	870.7	0.1414	mg/L	0.00064	0.7071	mg/L	0.00321	0.45%
Cu 324.752†	18754.4	0.07576	mg/L	0.000979	0.3788	mg/L	0.00489	1.29%
Fe 273.955†	131271.6	100.1	mg/L	0.52	500.6	mg/L	2.62	0.52%
K 766.490†	17547.5	8.804	mg/L	0.0319	44.02	mg/L	0.159	0.36%
Mg 279.077†	34216.1	23.15	mg/L	0.098	115.7	mg/L	0.49	0.42%
Mn 257.610†	176776.0	4.886	mg/L	0.0265	24.43	mg/L	0.133	0.54%
Mo 202.031†	68.0	0.00317	mg/L	0.000211	0.01585	mg/L	0.001055	6.65%
Na 589.592†	11555.3	0.9069	mg/L	0.00610	4.535	mg/L	0.0305	0.67%
Na 330.237†	4.8	0.5629	mg/L	0.15697	2.815	mg/L	0.7848	27.88%
Ni 231.604†	518.2	0.1257	mg/L	0.00069	0.6287	mg/L	0.00343	0.55%
Pb 220.353†	1721.2	0.2350	mg/L	0.00049	1.175	mg/L	0.0024	0.21%
Sb 206.836†	16.5	0.00474	mg/L	0.001568	0.02368	mg/L	0.007839	33.10%
Se 196.026†	20.0	0.01335	mg/L	0.003491	0.06677	mg/L	0.017455	26.14%
Si 288.158†	2923.8	1.361	mg/L	0.0023	6.807	mg/L	0.0114	0.17%
Sn 189.927†	-36.0	-0.00641	mg/L	0.000870	-0.03203	mg/L	0.004351	13.58%
Sr 421.552†	246355.3	0.2630	mg/L	0.00116	1.315	mg/L	0.0058	0.44%
Ti 334.903†	60402.7	2.897	mg/L	0.0140	14.49	mg/L	0.070	0.48%
Tl 190.801†	-24.7	0.00025	mg/L	0.001048	0.00123	mg/L	0.005241	425.28%
V 292.402†	18226.2	0.1354	mg/L	0.00162	0.6769	mg/L	0.00811	1.20%
Zn 206.200†	3230.5	0.7969	mg/L	0.00316	3.984	mg/L	0.0158	0.40%

Sequence No.: 18
Sample ID: VR32 ADUP SWC

Autosampler Location: 312
Date Collected: 11/16/2012 10:17:19 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR32 ADUP SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: VR32 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2258859.7	100.1	%	0.74				0.74%
ScR 361.383	291427.6	101.9	%	0.98				0.96%
Ag 328.068†	-180.6	-0.00098	mg/L	0.000168	-0.00490	mg/L	0.000841	17.17%
Al 308.215†	185344.6	104.1	mg/L	2.26	520.3	mg/L	11.32	2.18%
As 188.979†	-35.8	0.06971	mg/L	0.002642	0.3486	mg/L	0.01321	3.79%
B 249.677†	84.4	0.01068	mg/L	0.000531	0.05338	mg/L	0.002653	4.97%
Ba 233.527†	7849.4	1.713	mg/L	0.0148	8.565	mg/L	0.0740	0.86%
Be 313.042†	2146.5	0.00316	mg/L	0.000038	0.01580	mg/L	0.000190	1.21%
Ca 317.933†	297797.0	20.97	mg/L	0.486	104.8	mg/L	2.43	2.32%
Cd 228.802†	308.7	0.00898	mg/L	0.000333	0.04492	mg/L	0.001666	3.71%
Co 228.616†	1688.0	0.04027	mg/L	0.000520	0.2013	mg/L	0.00260	1.29%
Cr 267.716†	859.6	0.1398	mg/L	0.00211	0.6990	mg/L	0.01053	1.51%
Cu 324.752†	21237.5	0.08548	mg/L	0.000181	0.4274	mg/L	0.00090	0.21%
Fe 273.955†	138096.9	105.3	mg/L	2.40	526.6	mg/L	11.98	2.27%
K 766.490†	18920.4	9.493	mg/L	0.2101	47.46	mg/L	1.051	2.21%
Mg 279.077†	35088.2	23.74	mg/L	0.528	118.7	mg/L	2.64	2.22%
Mn 257.610†	173937.9	4.808	mg/L	0.1119	24.04	mg/L	0.560	2.33%
Mo 202.031†	73.3	0.00342	mg/L	0.000123	0.01708	mg/L	0.000616	3.61%
Na 589.592†	12184.0	0.9563	mg/L	0.01839	4.781	mg/L	0.0920	1.92%
Na 330.237†	5.5	0.6358	mg/L	0.14328	3.179	mg/L	0.7164	22.54%
Ni 231.604†	548.6	0.1331	mg/L	0.00071	0.6656	mg/L	0.00357	0.54%
Pb 220.353†	1770.7	0.2420	mg/L	0.00142	1.210	mg/L	0.0071	0.59%
Sb 206.836†	11.0	0.00323	mg/L	0.003166	0.01614	mg/L	0.015831	98.11%
Se 196.026†	18.3	0.01221	mg/L	0.003090	0.06103	mg/L	0.015451	25.32%
Si 288.158†	2258.9	1.052	mg/L	0.0106	5.262	mg/L	0.0528	1.00%
Sn 189.927†	-41.6	-0.00763	mg/L	0.000700	-0.03814	mg/L	0.003502	9.18%
Sr 421.552†	273751.5	0.2922	mg/L	0.00604	1.461	mg/L	0.0302	2.07%
Ti 334.903†	65590.3	3.146	mg/L	0.0704	15.73	mg/L	0.352	2.24%
Tl 190.801†	-25.2	0.00060	mg/L	0.001117	0.00300	mg/L	0.005586	186.48%
V 292.402†	19485.2	0.1447	mg/L	0.00087	0.7233	mg/L	0.00437	0.60%
Zn 206.200†	3337.0	0.8232	mg/L	0.00465	4.116	mg/L	0.0232	0.56%

Sequence No.: 19
Sample ID: VR32 ASPK SWC

Autosampler Location: 313
Date Collected: 11/16/2012 10:21:20 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR32 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR32 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2267775.0	100.5	%	0.74				0.74%
ScR 361.383	288152.1	100.8	%	0.99				0.99%
Ag 328.068†	35393.3	0.2004	mg/L	0.00195	1.002	mg/L	0.0098	0.97%
Al 308.215†	185558.0	104.2	mg/L	0.86	520.9	mg/L	4.28	0.82%
As 188.979†	1450.8	0.8573	mg/L	0.00259	4.286	mg/L	0.0129	0.30%
B 249.677†	95.2	0.01162	mg/L	0.001174	0.05810	mg/L	0.005871	10.10%
Ba 233.527†	11720.8	2.566	mg/L	0.0301	12.83	mg/L	0.150	1.17%
Be 313.042†	133048.2	0.2000	mg/L	0.00124	0.9998	mg/L	0.00622	0.62%
Ca 317.933†	407610.2	28.70	mg/L	0.227	143.5	mg/L	1.14	0.79%
Cd 228.802†	7462.7	0.2297	mg/L	0.00052	1.149	mg/L	0.0026	0.23%
Co 228.616†	9152.5	0.2518	mg/L	0.00082	1.259	mg/L	0.0041	0.33%
Cr 267.716†	2209.3	0.3566	mg/L	0.00450	1.783	mg/L	0.0225	1.26%
Cu 324.752†	77635.0	0.3023	mg/L	0.00256	1.512	mg/L	0.0128	0.85%
Fe 273.955†	137361.3	104.8	mg/L	1.04	523.8	mg/L	5.21	1.00%
K 766.490†	26725.3	13.41	mg/L	0.100	67.04	mg/L	0.502	0.75%
Mg 279.077†	40422.4	27.36	mg/L	0.279	136.8	mg/L	1.40	1.02%
Mn 257.610†	183860.9	5.082	mg/L	0.0486	25.41	mg/L	0.243	0.96%
Mo 202.031†	79.1	0.00361	mg/L	0.000193	0.01806	mg/L	0.000965	5.34%
Na 589.592†	63258.3	4.965	mg/L	0.0361	24.82	mg/L	0.181	0.73%
Na 330.237†	124.9	4.729	mg/L	0.1993	23.65	mg/L	0.997	4.21%
Ni 231.604†	1353.0	0.3280	mg/L	0.00417	1.640	mg/L	0.0209	1.27%
Pb 220.353†	8229.0	1.049	mg/L	0.0041	5.247	mg/L	0.0207	0.39%
Sb 206.836†	20.8	0.00391	mg/L	0.001979	0.01956	mg/L	0.009895	50.59%
Se 196.026†	1181.7	0.7933	mg/L	0.00294	3.967	mg/L	0.0147	0.37%
Si 288.158†	2476.2	1.155	mg/L	0.0142	5.773	mg/L	0.0708	1.23%
Sn 189.927†	-51.2	-0.00910	mg/L	0.000826	-0.04549	mg/L	0.004132	9.08%
Sr 421.552†	466875.1	0.4984	mg/L	0.00421	2.492	mg/L	0.0210	0.84%
Ti 334.903†	66391.7	3.184	mg/L	0.0267	15.92	mg/L	0.133	0.84%
Tl 190.801†	1963.5	0.7764	mg/L	0.00237	3.882	mg/L	0.0119	0.31%
V 292.402†	46657.3	0.3531	mg/L	0.00355	1.766	mg/L	0.0177	1.00%
Zn 206.200†	4206.7	1.038	mg/L	0.0139	5.189	mg/L	0.0693	1.34%

Sequence No.: 20
Sample ID: ~~VR32 APOST SWC~~ zzzzzz
Dilution: 5.000000X

Autosampler Location: 314
Date Collected: 11/16/2012 10:25:07 AM
Data Type: Original

#11-D

Nebulizer Parameters: VR32 APOST SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VR32 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2240449.9	99.26	%	0.413				0.42%
ScR 361.383	285107.0	99.71	%	0.715				0.72%
Ag 328.068†	84603.8	0.4789	mg/L	0.00721	2.395	mg/L	0.0360	1.51%
Al 308.215†	193242.4	108.5	mg/L	1.06	542.5	mg/L	5.29	0.98%
As 188.979†	3536.3	1.959	mg/L	0.0221	9.793	mg/L	0.1105	1.13%
B 249.677†	95.0	0.01100	mg/L	0.001130	0.05500	mg/L	0.005651	10.27%
Ba 233.527†	17289.1	3.793	mg/L	0.0334	18.97	mg/L	0.167	0.88%
Be 313.042†	307237.9	0.4618	mg/L	0.00459	2.309	mg/L	0.0230	0.99%
Ca 317.933†	428479.5	30.17	mg/L	0.279	150.8	mg/L	1.39	0.92%
Cd 228.802†	17177.9	0.5293	mg/L	0.00645	2.646	mg/L	0.0323	1.22%
Co 228.616†	19382.6	0.5419	mg/L	0.00575	2.710	mg/L	0.0287	1.06%
Cr 267.716†	3973.4	0.6399	mg/L	0.00719	3.200	mg/L	0.0359	1.12%
Cu 324.752†	150970.1	0.5845	mg/L	0.00815	2.922	mg/L	0.0408	1.39%
Fe 273.955†	141965.9	108.3	mg/L	1.57	541.4	mg/L	7.86	1.45%
K 766.490†	37840.4	18.98	mg/L	0.128	94.92	mg/L	0.640	0.67%
Mg 279.077†	51548.6	34.90	mg/L	0.369	174.5	mg/L	1.84	1.06%
Mn 257.610†	205040.2	5.668	mg/L	0.0698	28.34	mg/L	0.349	1.23%
Mo 202.031†	77.4	0.00349	mg/L	0.000575	0.01747	mg/L	0.002874	16.45%
Na 589.592†	129420.7	10.16	mg/L	0.073	50.79	mg/L	0.367	0.72%
Na 330.237†	291.3	10.41	mg/L	0.360	52.05	mg/L	1.800	3.46%
Ni 231.604†	2466.2	0.5976	mg/L	0.00539	2.988	mg/L	0.0270	0.90%
Pb 220.353†	16945.3	2.140	mg/L	0.0217	10.70	mg/L	0.108	1.01%
Sb 206.836†	31.5	0.00415	mg/L	0.002091	0.02074	mg/L	0.010456	50.42%
Se 196.026†	2830.4	1.900	mg/L	0.0200	9.502	mg/L	0.0998	1.05%
Si 288.158†	3129.4	1.460	mg/L	0.0246	7.301	mg/L	0.1232	1.69%
Sn 189.927†	-47.2	-0.00785	mg/L	0.000324	-0.03925	mg/L	0.001621	4.13%
Sr 421.552†	692965.8	0.7398	mg/L	0.00683	3.699	mg/L	0.0341	0.92%
Ti 334.903†	64649.4	3.100	mg/L	0.0325	15.50	mg/L	0.162	1.05%
Tl 190.801†	4673.1	1.834	mg/L	0.0180	9.170	mg/L	0.0901	0.98%
V 292.402†	81840.2	0.6230	mg/L	0.00817	3.115	mg/L	0.0408	1.31%
Zn 206.200†	5332.7	1.316	mg/L	0.0176	6.578	mg/L	0.0879	1.34%

Sequence No.: 21
Sample ID: VR32 L SWC

Autosampler Location: 315
Date Collected: 11/16/2012 10:28:09 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR32 L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR32 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2241870.5	99.32	%	0.252				0.25%
ScR 361.383	285688.7	99.92	%	1.744				1.75%
Ag 328.068†	-12.0	-0.00002	mg/L	0.000168	-0.00011	mg/L	0.000842	772.65%
Al 308.215†	139525.2	78.34	mg/L	0.590	391.7	mg/L	2.95	0.75%
As 188.979†	-75.9	0.07352	mg/L	0.000772	0.3676	mg/L	0.00386	1.05%
B 249.677†	128.5	0.01620	mg/L	0.000486	0.08100	mg/L	0.002431	3.00%
Ba 233.527†	16971.6	3.717	mg/L	0.0579	18.59	mg/L	0.290	1.56%
Be 313.042†	2116.0	0.00310	mg/L	0.000074	0.01550	mg/L	0.000368	2.38%
Ca 317.933†	844026.3	59.42	mg/L	0.395	297.1	mg/L	1.97	0.66%
Cd 228.802†	1625.6	0.05046	mg/L	0.000104	0.2523	mg/L	0.00052	0.21%
Co 228.616†	3466.7	0.08816	mg/L	0.000305	0.4408	mg/L	0.00152	0.35%
Cr 267.716†	2334.7	0.3760	mg/L	0.00494	1.880	mg/L	0.0247	1.31%
Cu 324.752†	53505.1	0.2109	mg/L	0.00025	1.055	mg/L	0.0012	0.12%
Fe 273.955†	189271.1	144.4	mg/L	1.06	721.8	mg/L	5.32	0.74%
K 766.490†	34203.1	17.16	mg/L	0.203	85.80	mg/L	1.015	1.18%
Mg 279.077†	69358.3	46.96	mg/L	0.334	234.8	mg/L	1.67	0.71%
Mn 257.610†	348969.7	9.646	mg/L	0.0702	48.23	mg/L	0.351	0.73%
Mo 202.031†	112.8	0.00496	mg/L	0.000375	0.02480	mg/L	0.001876	7.56%
Na 589.592†	4771.3	0.3745	mg/L	0.00153	1.872	mg/L	0.0077	0.41%
Na 330.237†	-12.2	-0.3171	mg/L	0.04777	-1.585	mg/L	0.2388	15.06%
Ni 231.604†	1172.3	0.2845	mg/L	0.00603	1.422	mg/L	0.0301	2.12%
Pb 220.353†	15280.2	1.923	mg/L	0.0086	9.615	mg/L	0.0428	0.45%
Sb 206.836†	44.7	0.01057	mg/L	0.001086	0.05284	mg/L	0.005430	10.28%
Se 196.026†	13.0	0.00859	mg/L	0.001729	0.04296	mg/L	0.008646	20.13%
Si 288.158†	2138.7	0.9996	mg/L	0.01572	4.998	mg/L	0.0786	1.57%
Sn 189.927†	-41.2	-0.00256	mg/L	0.001223	-0.01278	mg/L	0.006116	47.86%
Sr 421.552†	467519.9	0.4991	mg/L	0.00294	2.495	mg/L	0.0147	0.59%
Ti 334.903†	85682.3	4.108	mg/L	0.0274	20.54	mg/L	0.137	0.67%
Tl 190.801†	-21.3	0.00588	mg/L	0.001727	0.02939	mg/L	0.008636	29.39%
V 292.402†	21033.7	0.1563	mg/L	0.00043	0.7817	mg/L	0.00217	0.28%
Zn 206.200†	10204.8	2.517	mg/L	0.0419	12.59	mg/L	0.209	1.66%

Sequence No.: 22
Sample ID: CV 3

Autosampler Location: 7
Date Collected: 11/16/2012 10:32:11 AM
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.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2199777.5	97.46	%	0.705				0.72%
ScR 361.383	274493.3	96.00	%	0.742				0.77%
Ag 328.068†	178100.1	1.008	mg/L	0.0097	1.008	mg/L	0.0097	0.96%
Al 308.215†	3790.5	2.093	mg/L	0.0278	2.093	mg/L	0.0278	1.33%
As 188.979†	3762.9	2.019	mg/L	0.0205	2.019	mg/L	0.0205	1.02%
B 249.677†	7776.1	0.9915	mg/L	0.01126	0.9915	mg/L	0.01126	1.14%
Ba 233.527†	4903.7	1.080	mg/L	0.0061	1.080	mg/L	0.0061	0.56%
Be 313.042†	645145.2	0.9699	mg/L	0.00944	0.9699	mg/L	0.00944	0.97%
Ca 317.933†	30184.6	2.125	mg/L	0.0195	2.125	mg/L	0.0195	0.92%
Cd 228.802†	33947.8	1.059	mg/L	0.0092	1.059	mg/L	0.0092	0.87%
Co 228.616†	37015.0	1.048	mg/L	0.0100	1.048	mg/L	0.0100	0.96%
Cr 267.716†	6578.2	1.059	mg/L	0.0094	1.059	mg/L	0.0094	0.89%
Cu 324.752†	268679.8	1.033	mg/L	0.0088	1.033	mg/L	0.0088	0.86%
Fe 273.955†	2814.0	2.139	mg/L	0.0124	2.139	mg/L	0.0124	0.58%
K 766.490†	40847.1	20.49	mg/L	0.188	20.49	mg/L	0.188	0.92%
Mg 279.077†	3093.4	2.105	mg/L	0.0124	2.105	mg/L	0.0124	0.59%
Mn 257.610†	38361.5	1.061	mg/L	0.0078	1.061	mg/L	0.0078	0.74%
Mo 202.031†	21127.2	1.053	mg/L	0.0082	1.053	mg/L	0.0082	0.78%
Na 589.592†	642349.7	50.42	mg/L	0.471	50.42	mg/L	0.471	0.93%
Na 330.237†	1524.0	52.94	mg/L	0.456	52.94	mg/L	0.456	0.86%
Ni 231.604†	4177.2	1.014	mg/L	0.0029	1.014	mg/L	0.0029	0.28%
Pb 220.353†	16450.2	2.057	mg/L	0.0166	2.057	mg/L	0.0166	0.81%
Sb 206.836†	7107.8	2.173	mg/L	0.0140	2.173	mg/L	0.0140	0.65%
Se 196.026†	2936.4	1.971	mg/L	0.0130	1.971	mg/L	0.0130	0.66%
Si 288.158†	4642.4	2.156	mg/L	0.0147	2.156	mg/L	0.0147	0.68%
Sn 189.927†	4022.3	1.033	mg/L	0.0084	1.033	mg/L	0.0084	0.81%
Sr 421.552†	918881.6	0.9809	mg/L	0.00872	0.9809	mg/L	0.00872	0.89%
Ti 334.903†	22717.1	1.089	mg/L	0.0084	1.089	mg/L	0.0084	0.77%
Tl 190.801†	5145.8	2.004	mg/L	0.0115	2.004	mg/L	0.0115	0.58%
V 292.402†	135813.7	1.042	mg/L	0.0100	1.042	mg/L	0.0100	0.96%
Zn 206.200†	4227.3	1.043	mg/L	0.0107	1.043	mg/L	0.0107	1.03%

Sequence No.: 23
Sample ID: CB 3

Autosampler Location: 1
Date Collected: 11/16/2012 10:36:18 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2206241.1	97.74	%	1.512				1.55%
ScR 361.383	279930.4	97.90	%	1.042				1.06%
Ag 328.068†	69.2	0.00039	mg/L	0.000225	0.00039	mg/L	0.000225	57.53%
Al 308.215†	25.2	0.01412	mg/L	0.005460	0.01412	mg/L	0.005460	38.66%
As 188.979†	-2.9	-0.00153	mg/L	0.001874	-0.00153	mg/L	0.001874	122.61%
B 249.677†	11.8	0.00150	mg/L	0.000435	0.00150	mg/L	0.000435	28.95%
Ba 233.527†	2.1	0.00047	mg/L	0.001240	0.00047	mg/L	0.001240	264.99%
Be 313.042†	90.2	0.00014	mg/L	0.000045	0.00014	mg/L	0.000045	33.08%
Ca 317.933†	35.1	0.00247	mg/L	0.000666	0.00247	mg/L	0.000666	26.95%
Cd 228.802†	-8.8	-0.00027	mg/L	0.000119	-0.00027	mg/L	0.000119	44.28%
Co 228.616†	-19.3	-0.00055	mg/L	0.000083	-0.00055	mg/L	0.000083	15.04%
Cr 267.716†	-11.8	-0.00189	mg/L	0.000839	-0.00189	mg/L	0.000839	44.28%
Cu 324.752†	94.2	0.00036	mg/L	0.000074	0.00036	mg/L	0.000074	20.57%
Fe 273.955†	12.2	0.00929	mg/L	0.000626	0.00929	mg/L	0.000626	6.74%
K 766.490†	45.5	0.02285	mg/L	0.005779	0.02285	mg/L	0.005779	25.29%
Mg 279.077†	3.7	0.00253	mg/L	0.002254	0.00253	mg/L	0.002254	89.20%
Mn 257.610†	8.3	0.00023	mg/L	0.000162	0.00023	mg/L	0.000162	70.97%
Mo 202.031†	15.5	0.00077	mg/L	0.000227	0.00077	mg/L	0.000227	29.42%
Na 589.592†	23.5	0.00185	mg/L	0.002659	0.00185	mg/L	0.002659	144.05%
Na 330.237†	-14.7	-0.5103	mg/L	0.40102	-0.5103	mg/L	0.40102	78.58%
Ni 231.604†	-4.0	-0.00097	mg/L	0.002039	-0.00097	mg/L	0.002039	209.61%
Pb 220.353†	5.6	0.00070	mg/L	0.000472	0.00070	mg/L	0.000472	67.95%
Sb 206.836†	2.4	0.00076	mg/L	0.000608	0.00076	mg/L	0.000608	79.94%
Se 196.026†	0.9	0.00059	mg/L	0.003326	0.00059	mg/L	0.003326	561.48%
Si 288.158†	6.2	0.00288	mg/L	0.000784	0.00288	mg/L	0.000784	27.20%
Sn 189.927†	-1.1	-0.00028	mg/L	0.000451	-0.00028	mg/L	0.000451	159.08%
Sr 421.552†	87.2	0.00009	mg/L	0.000020	0.00009	mg/L	0.000020	21.73%
Ti 334.903†	14.1	0.00067	mg/L	0.000930	0.00067	mg/L	0.000930	137.81%
Tl 190.801†	-5.1	-0.00200	mg/L	0.002356	-0.00200	mg/L	0.002356	117.68%
V 292.402†	-37.1	-0.00029	mg/L	0.000145	-0.00029	mg/L	0.000145	49.85%
Zn 206.200†	-0.5	-0.00011	mg/L	0.000531	-0.00011	mg/L	0.000531	470.95%

Sequence No.: 24
Sample ID: CRI

Autosampler Location: 301
Date Collected: 11/16/2012 10:40:34 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	216.0 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	2194544.8	97.22	%	0.185				0.19%
ScR 361.383	278645.3	97.45	%	2.509				2.57%
Ag 328.068†	560.6	0.00317	mg/L	0.000037	0.00317	mg/L	0.000037	1.18%
Al 308.215†	106.1	0.05946	mg/L	0.003665	0.05946	mg/L	0.003665	6.16%
As 188.979†	94.2	0.05001	mg/L	0.001108	0.05001	mg/L	0.001108	2.22%
B 249.677†	162.9	0.02079	mg/L	0.000428	0.02079	mg/L	0.000428	2.06%
Ba 233.527†	13.3	0.00293	mg/L	0.000685	0.00293	mg/L	0.000685	23.41%
Be 313.042†	661.0	0.00099	mg/L	0.000074	0.00099	mg/L	0.000074	7.48%
Ca 317.933†	717.9	0.05054	mg/L	0.001905	0.05054	mg/L	0.001905	3.77%
Cd 228.802†	73.4	0.00199	mg/L	0.000087	0.00199	mg/L	0.000087	4.35%
Co 228.616†	105.9	0.00299	mg/L	0.000215	0.00299	mg/L	0.000215	7.20%
Cr 267.716†	26.0	0.00418	mg/L	0.000596	0.00418	mg/L	0.000596	14.26%
Cu 324.752†	648.9	0.00249	mg/L	0.000130	0.00249	mg/L	0.000130	5.23%
Fe 273.955†	75.6	0.05763	mg/L	0.001077	0.05763	mg/L	0.001077	1.87%
K 766.490†	1009.0	0.5062	mg/L	0.02489	0.5062	mg/L	0.02489	4.92%
Mg 279.077†	85.7	0.05812	mg/L	0.005315	0.05812	mg/L	0.005315	9.14%
Mn 257.610†	38.2	0.00106	mg/L	0.000107	0.00106	mg/L	0.000107	10.13%
Mo 202.031†	110.8	0.00552	mg/L	0.000073	0.00552	mg/L	0.000073	1.33%
Na 589.592†	6061.9	0.4758	mg/L	0.01122	0.4758	mg/L	0.01122	2.36%
Na 330.237†	2.4	0.08126	mg/L	0.354596	0.08126	mg/L	0.354596	436.35%
Ni 231.604†	35.0	0.00851	mg/L	0.001515	0.00851	mg/L	0.001515	17.80%
Pb 220.353†	174.9	0.02188	mg/L	0.001641	0.02188	mg/L	0.001641	7.50%
Sb 206.836†	178.5	0.05463	mg/L	0.001245	0.05463	mg/L	0.001245	2.28%
Se 196.026†	78.7	0.05284	mg/L	0.001904	0.05284	mg/L	0.001904	3.60%
Si 288.158†	137.1	0.06368	mg/L	0.004790	0.06368	mg/L	0.004790	7.52%
Sn 189.927†	37.3	0.00959	mg/L	0.001111	0.00959	mg/L	0.001111	11.58%
Sr 421.552†	906.3	0.00097	mg/L	0.000053	0.00097	mg/L	0.000053	5.49%
Ti 334.903†	111.6	0.00535	mg/L	0.000277	0.00535	mg/L	0.000277	5.19%
Tl 190.801†	124.3	0.04859	mg/L	0.000928	0.04859	mg/L	0.000928	1.91%
V 292.402†	385.7	0.00296	mg/L	0.000145	0.00296	mg/L	0.000145	4.89%
Zn 206.200†	36.9	0.00910	mg/L	0.000445	0.00910	mg/L	0.000445	4.89%

Sequence No.: 25
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/16/2012 10:44:51 AM
Data Type: Original

Dilution: 1.000000X

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	2156626.1	95.54	%	0.438				0.46%
ScR 361.383	275282.3	96.28	%	0.489				0.51%
Ag 328.068†	-133.3	-0.00075	mg/L	0.000224	-0.00075	mg/L	0.000224	29.82%
Al 308.215†	362630.4	203.6	mg/L	0.14	203.6	mg/L	0.14	0.07%
As 188.979†	40.6	0.01576	mg/L	0.002516	0.01576	mg/L	0.002516	15.96%
B 249.677†	-21.0	-0.00267	mg/L	0.001853	-0.00267	mg/L	0.001853	69.29%
Ba 233.527†	139.9	-0.00162	mg/L	0.000210	-0.00162	mg/L	0.000210	12.94%
Be 313.042†	105.0	0.00016	mg/L	0.000030	0.00016	mg/L	0.000030	19.59%
Ca 317.933†	1446737.6	101.9	mg/L	0.16	101.9	mg/L	0.16	0.16%
Cd 228.802†	57.8	-0.00020	mg/L	0.000157	-0.00020	mg/L	0.000157	77.33%
Co 228.616†	61.5	-0.00085	mg/L	0.000230	-0.00085	mg/L	0.000230	27.00%
Cr 267.716†	4.8	-0.00151	mg/L	0.000889	-0.00151	mg/L	0.000889	59.09%
Cu 324.752†	-1974.4	0.00028	mg/L	0.000072	0.00028	mg/L	0.000072	25.63%
Fe 273.955†	259991.2	198.3	mg/L	0.35	198.3	mg/L	0.35	0.18%
K 766.490†	28.7	0.01438	mg/L	0.006419	0.01438	mg/L	0.006419	44.65%
Mg 279.077†	155846.5	105.6	mg/L	1.66	105.6	mg/L	1.66	1.58%
Mn 257.610†	27.6	0.00071	mg/L	0.000181	0.00071	mg/L	0.000181	25.37%
Mo 202.031†	57.5	0.00176	mg/L	0.000165	0.00176	mg/L	0.000165	9.33%
Na 589.592†	130.5	0.01024	mg/L	0.003638	0.01024	mg/L	0.003638	35.52%
Na 330.237†	-22.3	-0.7765	mg/L	0.13838	-0.7765	mg/L	0.13838	17.82%
Ni 231.604†	1.7	0.00042	mg/L	0.000176	0.00042	mg/L	0.000176	41.49%
Pb 220.353†	-316.5	0.00102	mg/L	0.001663	0.00102	mg/L	0.001663	163.24%
Sb 206.836†	26.8	0.00802	mg/L	0.001448	0.00802	mg/L	0.001448	18.05%
Se 196.026†	26.0	0.01742	mg/L	0.002816	0.01742	mg/L	0.002816	16.16%
Si 288.158†	-30.5	-0.00138	mg/L	0.003712	-0.00138	mg/L	0.003712	269.65%
Sn 189.927†	-83.0	-0.00869	mg/L	0.000514	-0.00869	mg/L	0.000514	5.92%
Sr 421.552†	3638.9	0.00388	mg/L	0.000074	0.00388	mg/L	0.000074	1.91%
Ti 334.903†	152.2	0.00244	mg/L	0.000552	0.00244	mg/L	0.000552	22.63%
Tl 190.801†	-64.7	-0.00413	mg/L	0.003476	-0.00413	mg/L	0.003476	84.06%
V 292.402†	1405.4	0.00380	mg/L	0.000376	0.00380	mg/L	0.000376	9.90%
Zn 206.200†	16.7	0.00412	mg/L	0.000579	0.00412	mg/L	0.000579	14.04%

Conc.

Sequence No.: 26
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/16/2012 10:49:08 AM
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	2227176.1	98.67	%	0.400				0.41%
ScR 361.383	275651.0	96.41	%	1.436				1.49%
Ag 328.068†	176615.4	0.9997	mg/L	0.00274	0.9997	mg/L	0.00274	0.27%
Al 308.215†	359661.8	201.9	mg/L	1.47	201.9	mg/L	1.47	0.73%
As 188.979†	1911.6	1.006	mg/L	0.0076	1.006	mg/L	0.0076	0.76%
B 249.677†	-9.7	-0.00334	mg/L	0.000583	-0.00334	mg/L	0.000583	17.45%
Ba 233.527†	4975.4	1.064	mg/L	0.0122	1.064	mg/L	0.0122	1.15%
Be 313.042†	649735.1	0.9768	mg/L	0.00231	0.9768	mg/L	0.00231	0.24%
Ca 317.933†	1451145.2	102.2	mg/L	0.29	102.2	mg/L	0.29	0.29%
Cd 228.802†	33114.8	1.037	mg/L	0.0054	1.037	mg/L	0.0054	0.52%
Co 228.616†	36106.3	1.021	mg/L	0.0046	1.021	mg/L	0.0046	0.45%
Cr 267.716†	6579.8	1.057	mg/L	0.0142	1.057	mg/L	0.0142	1.34%
Cu 324.752†	266365.5	1.032	mg/L	0.0050	1.032	mg/L	0.0050	0.48%
Fe 273.955†	260344.1	198.6	mg/L	1.06	198.6	mg/L	1.06	0.53%
K 766.490†	-16.3	-0.00817	mg/L	0.016399	-0.00817	mg/L	0.016399	200.84%
Mg 279.077†	150792.3	102.2	mg/L	0.48	102.2	mg/L	0.48	0.47%
Mn 257.610†	35986.7	0.9948	mg/L	0.00461	0.9948	mg/L	0.00461	0.46%
Mo 202.031†	47.2	0.00119	mg/L	0.000498	0.00119	mg/L	0.000498	41.79%
Na 589.592†	342.5	0.02688	mg/L	0.000553	0.02688	mg/L	0.000553	2.06%
Na 330.237†	-16.2	-0.8821	mg/L	0.10893	-0.8821	mg/L	0.10893	12.35%
Ni 231.604†	4063.8	0.9862	mg/L	0.01456	0.9862	mg/L	0.01456	1.48%
Pb 220.353†	7570.0	0.9869	mg/L	0.00426	0.9869	mg/L	0.00426	0.43%
Sb 206.836†	3433.5	1.039	mg/L	0.0012	1.039	mg/L	0.0012	0.11%
Se 196.026†	1486.3	0.9972	mg/L	0.00585	0.9972	mg/L	0.00585	0.59%
Si 288.158†	-34.5	0.00013	mg/L	0.001803	0.00013	mg/L	0.001803	>999.9%
Sn 189.927†	-87.2	-0.00923	mg/L	0.001031	-0.00923	mg/L	0.001031	11.18%
Sr 421.552†	3649.2	0.00390	mg/L	Conf. 0.000081	0.00390	mg/L	0.000081	2.08%
Ti 334.903†	150.9	0.00215	mg/L	0.000192	0.00215	mg/L	0.000192	8.90%
Tl 190.801†	2366.3	0.9373	mg/L	0.00224	0.9373	mg/L	0.00224	0.24%
V 292.402†	130937.5	0.9976	mg/L	0.00376	0.9976	mg/L	0.00376	0.38%
Zn 206.200†	3934.0	0.9704	mg/L	0.01123	0.9704	mg/L	0.01123	1.16%

Sequence No.: 27
Sample ID: CV 4
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/16/2012 10:52:58 AM
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	2245873.8	99.50	%	0.811				0.82%
ScR 361.383	283315.6	99.09	%	0.306				0.31%
Ag 328.068†	174930.5	0.9902	mg/L	0.00619	0.9902	mg/L	0.00619	0.62%
Al 308.215†	3773.8	2.084	mg/L	0.0143	2.084	mg/L	0.0143	0.69%
As 188.979†	3729.4	1.999	mg/L	0.0206	1.999	mg/L	0.0206	1.03%
B 249.677†	7658.5	0.9765	mg/L	0.00295	0.9765	mg/L	0.00295	0.30%
Ba 233.527†	4847.2	1.068	mg/L	0.0052	1.068	mg/L	0.0052	0.49%
Be 313.042†	638772.9	0.9603	mg/L	0.00684	0.9603	mg/L	0.00684	0.71%
Ca 317.933†	28806.7	2.028	mg/L	0.0119	2.028	mg/L	0.0119	0.59%
Cd 228.802†	33460.4	1.044	mg/L	0.0067	1.044	mg/L	0.0067	0.64%
Co 228.616†	36612.0	1.036	mg/L	0.0038	1.036	mg/L	0.0038	0.37%
Cr 267.716†	6557.1	1.055	mg/L	0.0055	1.055	mg/L	0.0055	0.52%
Cu 324.752†	262464.5	1.009	mg/L	0.0050	1.009	mg/L	0.0050	0.50%
Fe 273.955†	2800.1	2.129	mg/L	0.0222	2.129	mg/L	0.0222	1.04%
K 766.490†	40043.1	20.09	mg/L	0.077	20.09	mg/L	0.077	0.38%
Mg 279.077†	3104.6	2.113	mg/L	0.0057	2.113	mg/L	0.0057	0.27%
Mn 257.610†	36428.0	1.007	mg/L	0.0046	1.007	mg/L	0.0046	0.46%
Mo 202.031†	20878.4	1.040	mg/L	0.0100	1.040	mg/L	0.0100	0.96%
Na 589.592†	624581.9	49.02	mg/L	0.298	49.02	mg/L	0.298	0.61%
Na 330.237†	1498.3	52.03	mg/L	0.230	52.03	mg/L	0.230	0.44%
Ni 231.604†	4145.1	1.006	mg/L	0.0047	1.006	mg/L	0.0047	0.46%
Pb 220.353†	16296.0	2.038	mg/L	0.0172	2.038	mg/L	0.0172	0.84%
Sb 206.836†	7007.4	2.142	mg/L	0.0215	2.142	mg/L	0.0215	1.00%
Se 196.026†	2913.8	1.956	mg/L	0.0143	1.956	mg/L	0.0143	0.73%
Si 288.158†	4550.0	2.113	mg/L	0.0054	2.113	mg/L	0.0054	0.26%
Sn 189.927†	3981.5	1.023	mg/L	0.0089	1.023	mg/L	0.0089	0.87%
Sr 421.552†	897817.7	0.9584	mg/L	0.00657	0.9584	mg/L	0.00657	0.69%
Ti 334.903†	21436.6	1.027	mg/L	0.0065	1.027	mg/L	0.0065	0.64%
Tl 190.801†	5089.8	1.982	mg/L	0.0182	1.982	mg/L	0.0182	0.92%
V 292.402†	133864.0	1.027	mg/L	0.0060	1.027	mg/L	0.0060	0.59%
Zn 206.200†	4224.6	1.042	mg/L	0.0062	1.042	mg/L	0.0062	0.60%

Sequence No.: 28
Sample ID: CB 4

Autosampler Location: 1
Date Collected: 11/16/2012 10:57:51 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	2282848.4	101.1	%	0.71				0.70%
ScR 361.383	289522.5	101.3	%	0.80				0.79%
Ag 328.068†	49.8	0.00028	mg/L	0.000263	0.00028	mg/L	0.000263	93.38%
Al 308.215†	26.0	0.01462	mg/L	0.000506	0.01462	mg/L	0.000506	3.46%
As 188.979†	0.9	0.00048	mg/L	0.001711	0.00048	mg/L	0.001711	356.99%
B 249.677†	16.0	0.00204	mg/L	0.000799	0.00204	mg/L	0.000799	39.18%
Ba 233.527†	-1.9	-0.00043	mg/L	0.000450	-0.00043	mg/L	0.000450	105.66%
Be 313.042†	122.5	0.00018	mg/L	0.000019	0.00018	mg/L	0.000019	10.37%
Ca 317.933†	75.1	0.00529	mg/L	0.000179	0.00529	mg/L	0.000179	3.38%
Cd 228.802†	-8.7	-0.00028	mg/L	0.000156	-0.00028	mg/L	0.000156	56.20%
Co 228.616†	-11.3	-0.00032	mg/L	0.000035	-0.00032	mg/L	0.000035	10.98%
Cr 267.716†	-7.4	-0.00119	mg/L	0.000597	-0.00119	mg/L	0.000597	50.09%
Cu 324.752†	104.1	0.00040	mg/L	0.000121	0.00040	mg/L	0.000121	30.32%
Fe 273.955†	15.4	0.01178	mg/L	0.000655	0.01178	mg/L	0.000655	5.56%
K 766.490†	-4.7	-0.00236	mg/L	0.024789	-0.00236	mg/L	0.024789	>999.9%
Mg 279.077†	8.8	0.00600	mg/L	0.002743	0.00600	mg/L	0.002743	45.75%
Mn 257.610†	-0.4	-0.00001	mg/L	0.000105	-0.00001	mg/L	0.000105	867.35%
Mo 202.031†	9.7	0.00048	mg/L	0.000181	0.00048	mg/L	0.000181	37.62%
Na 589.592†	74.7	0.00586	mg/L	0.004456	0.00586	mg/L	0.004456	75.99%
Na 330.237†	-10.4	-0.3604	mg/L	0.24897	-0.3604	mg/L	0.24897	69.08%
Ni 231.604†	-2.7	-0.00066	mg/L	0.001049	-0.00066	mg/L	0.001049	159.46%
Pb 220.353†	8.2	0.00103	mg/L	0.000615	0.00103	mg/L	0.000615	59.87%
Sb 206.836†	6.2	0.00191	mg/L	0.001988	0.00191	mg/L	0.001988	103.96%
Se 196.026†	3.5	0.00238	mg/L	0.002705	0.00238	mg/L	0.002705	113.63%
Si 288.158†	-1.8	-0.00082	mg/L	0.004960	-0.00082	mg/L	0.004960	607.93%
Sn 189.927†	-3.7	-0.00095	mg/L	0.001088	-0.00095	mg/L	0.001088	114.08%
Sr 421.552†	128.0	0.00014	mg/L	0.000012	0.00014	mg/L	0.000012	8.70%
Ti 334.903†	15.5	0.00074	mg/L	0.000522	0.00074	mg/L	0.000522	70.17%
Tl 190.801†	1.3	0.00053	mg/L	0.000746	0.00053	mg/L	0.000746	141.10%
V 292.402†	-16.6	-0.00013	mg/L	0.000098	-0.00013	mg/L	0.000098	74.03%
Zn 206.200†	-0.3	-0.00008	mg/L	0.000713	-0.00008	mg/L	0.000713	853.61%

Sequence No.: 29
Sample ID: VR34 MB1 SWC

Dilution: 2.000000X

Del

Autosampler Location: 316
Date Collected: 11/16/2012 11:02:07 AM
Data Type: Original

Nebulizer Parameters: VR34 MB1 SWC

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: VR34 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2310649.3	102.4	%	0.51				0.50%
ScR 361.383	289706.0	101.3	%	0.63				0.62%
Ag 328.068†	40.0	0.00023	mg/L	0.000206	0.00045	mg/L	0.000413	91.13%
Al 308.215†	18.8	0.01055	mg/L	0.010958	0.02110	mg/L	0.021916	103.87%
As 188.979†	-0.9	-0.00045	mg/L	0.002683	-0.00090	mg/L	0.005365	592.86%
B 249.677†	1.3	0.00017	mg/L	0.000338	0.00034	mg/L	0.000676	196.30%
Ba 233.527†	-3.3	-0.00073	mg/L	0.000325	-0.00146	mg/L	0.000649	44.43%
Be 313.042†	35.0	0.00005	mg/L	0.000022	0.00011	mg/L	0.000045	42.33%
Ca 317.933†	185.3	0.01305	mg/L	0.001109	0.02609	mg/L	0.002218	8.50%
Cd 228.802†	-9.8	-0.00031	mg/L	0.000190	-0.00061	mg/L	0.000380	61.86%
Co 228.616†	-15.3	-0.00043	mg/L	0.000113	-0.00087	mg/L	0.000226	26.06%
Cr 267.716†	-9.3	-0.00150	mg/L	0.000438	-0.00299	mg/L	0.000877	29.29%
Cu 324.752†	167.1	0.00064	mg/L	0.000077	0.00129	mg/L	0.000153	11.92%
Fe 273.955†	14.1	0.01074	mg/L	0.000295	0.02147	mg/L	0.000590	2.75%
K 766.490†	17.9	0.00898	mg/L	0.010027	0.01796	mg/L	0.020055	111.63%
Mg 279.077†	9.2	0.00624	mg/L	0.001872	0.01248	mg/L	0.003745	30.01%
Mn 257.610†	9.4	0.00026	mg/L	0.000120	0.00052	mg/L	0.000239	45.91%
Mo 202.031†	-1.0	-0.00005	mg/L	0.000194	-0.00010	mg/L	0.000387	396.73%
Na 589.592†	38.2	0.00300	mg/L	0.002060	0.00600	mg/L	0.004120	68.68%
Na 330.237†	-14.9	-0.5194	mg/L	0.57413	-1.039	mg/L	1.1483	110.54%
Ni 231.604†	-4.3	-0.00104	mg/L	0.000643	-0.00208	mg/L	0.001286	61.86%
Pb 220.353†	-0.4	-0.00005	mg/L	0.000334	-0.00009	mg/L	0.000669	721.84%
Sb 206.836†	0.6	0.00020	mg/L	0.000993	0.00040	mg/L	0.001986	496.76%
Se 196.026†	7.9	0.00528	mg/L	0.001984	0.01057	mg/L	0.003968	37.55%
Si 288.158†	1.4	0.00064	mg/L	0.002035	0.00127	mg/L	0.004070	320.47%
Sn 189.927†	-4.9	-0.00127	mg/L	0.000565	-0.00253	mg/L	0.001130	44.58%
Sr 421.552†	28.0	0.00003	mg/L	0.000036	0.00006	mg/L	0.000072	119.90%
Ti 334.903†	1.3	0.00006	mg/L	0.000854	0.00013	mg/L	0.001708	>999.9%
Tl 190.801†	1.2	0.00048	mg/L	0.000978	0.00096	mg/L	0.001957	203.76%
V 292.402†	-39.2	-0.00031	mg/L	0.000169	-0.00061	mg/L	0.000338	55.28%
Zn 206.200†	21.8	0.00537	mg/L	0.000207	0.01074	mg/L	0.000415	3.86%

Sequence No.: 30
Sample ID: VR34 B SWC

Dilution: 5.000000X

Del

Autosampler Location: 317
Date Collected: 11/16/2012 11:06:24 AM
Data Type: Original

Nebulizer Parameters: VR34 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2298846.2	101.8	%	0.36				0.35%
ScR 361.383	297106.6	103.9	%	3.06				2.94%
Ag 328.068†	-47.8	-0.00022	mg/L	0.000217	-0.00112	mg/L	0.001085	97.21%
Al 308.215†	133538.1	74.98	mg/L	2.437	374.9	mg/L	12.18	3.25%
As 188.979†	-64.6	0.05467	mg/L	0.004329	0.2733	mg/L	0.02165	7.92%
B 249.677†	87.3	0.01104	mg/L	0.001116	0.05521	mg/L	0.005579	10.10%
Ba 233.527†	7179.2	1.568	mg/L	0.0517	7.838	mg/L	0.2586	3.30%
Be 313.042†	1570.3	0.00229	mg/L	0.000113	0.01145	mg/L	0.000564	4.93%
Ca 317.933†	404790.3	28.50	mg/L	0.889	142.5	mg/L	4.45	3.12%
Cd 228.802†	764.7	0.02362	mg/L	0.000122	0.1181	mg/L	0.00061	0.52%
Co 228.616†	1862.3	0.04536	mg/L	0.000135	0.2268	mg/L	0.00068	0.30%
Cr 267.716†	1610.8	0.2594	mg/L	0.00766	1.297	mg/L	0.0383	2.95%
Cu 324.752†	25996.6	0.1031	mg/L	0.00039	0.5153	mg/L	0.00194	0.38%
Fe 273.955†	118848.3	90.64	mg/L	3.213	453.2	mg/L	16.07	3.54%
K 766.490†	15395.4	7.724	mg/L	0.2657	38.62	mg/L	1.329	3.44%
Mg 279.077†	47164.6	31.94	mg/L	1.090	159.7	mg/L	5.45	3.41%
Mn 257.610†	171224.4	4.733	mg/L	0.1604	23.66	mg/L	0.802	3.39%
Mo 202.031†	65.3	0.00293	mg/L	0.000460	0.01466	mg/L	0.002302	15.70%
Na 589.592†	7841.2	0.6154	mg/L	0.01745	3.077	mg/L	0.0873	2.84%
Na 330.237†	-6.8	0.1393	mg/L	0.07590	0.6963	mg/L	0.37951	54.50%
Ni 231.604†	564.7	0.1370	mg/L	0.00504	0.6851	mg/L	0.02522	3.68%
Pb 220.353†	8738.2	1.107	mg/L	0.0031	5.533	mg/L	0.0157	0.28%
Sb 206.836†	30.7	0.00758	mg/L	0.001313	0.03790	mg/L	0.006566	17.32%
Se 196.026†	10.3	0.00683	mg/L	0.003294	0.03415	mg/L	0.016472	48.23%
Si 288.158†	2561.5	1.194	mg/L	0.0353	5.970	mg/L	0.1764	2.96%
Sn 189.927†	-30.6	-0.00382	mg/L	0.000754	-0.01912	mg/L	0.003769	19.72%
Sr 421.552†	258929.8	0.2764	mg/L	0.00879	1.382	mg/L	0.0439	3.18%
Ti 334.903†	66167.1	3.173	mg/L	0.1042	15.87	mg/L	0.521	3.28%
Tl 190.801†	-13.6	0.00343	mg/L	0.002413	0.01716	mg/L	0.012066	70.32%
V 292.402†	21335.9	0.1598	mg/L	0.00065	0.7990	mg/L	0.00327	0.41%
Zn 206.200†	4250.9	1.049	mg/L	0.0307	5.243	mg/L	0.1537	2.93%

Sequence No.: 31
Sample ID: VR34 C SWC

Dilution: 5.000000X

Del

Autosampler Location: 318
Date Collected: 11/16/2012 11:10:25 AM
Data Type: Original

Nebulizer Parameters: VR34 C SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VR34 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2263145.3	100.3	%	0.61				0.61%
ScR 361.383	286349.3	100.1	%	1.33				1.33%
Ag 328.068†	-60.6	-0.00031	mg/L	0.000047	-0.00157	mg/L	0.000237	15.08%
Al 308.215†	102093.7	57.32	mg/L	1.015	286.6	mg/L	5.07	1.77%
As 188.979†	-15.4	0.05660	mg/L	0.001745	0.2830	mg/L	0.00872	3.08%
B 249.677†	65.6	0.00830	mg/L	0.000493	0.04151	mg/L	0.002464	5.94%
Ba 233.527†	3543.0	0.7707	mg/L	0.00464	3.853	mg/L	0.0232	0.60%
Be 313.042†	1343.6	0.00197	mg/L	0.000053	0.00986	mg/L	0.000266	2.70%
Ca 317.933†	286302.1	20.16	mg/L	0.421	100.8	mg/L	2.10	2.09%
Cd 228.802†	582.7	0.01790	mg/L	0.000375	0.08948	mg/L	0.001874	2.09%
Co 228.616†	1145.0	0.02713	mg/L	0.000280	0.1356	mg/L	0.00140	1.03%
Cr 267.716†	393.6	0.06419	mg/L	0.002247	0.3209	mg/L	0.01123	3.50%
Cu 324.752†	19791.0	0.07831	mg/L	0.001071	0.3915	mg/L	0.00535	1.37%
Fe 273.955†	82692.9	63.07	mg/L	1.280	315.3	mg/L	6.40	2.03%
K 766.490†	11154.7	5.596	mg/L	0.0855	27.98	mg/L	0.428	1.53%
Mg 279.077†	20253.7	13.70	mg/L	0.272	68.51	mg/L	1.361	1.99%
Mn 257.610†	91212.1	2.521	mg/L	0.0521	12.61	mg/L	0.260	2.07%
Mo 202.031†	47.9	0.00217	mg/L	0.000325	0.01083	mg/L	0.001626	15.01%
Na 589.592†	8740.4	0.6860	mg/L	0.01165	3.430	mg/L	0.0582	1.70%
Na 330.237†	-10.9	-0.1393	mg/L	0.07390	-0.6963	mg/L	0.36950	53.07%
Ni 231.604†	250.1	0.06069	mg/L	0.001143	0.3034	mg/L	0.00571	1.88%
Pb 220.353†	4584.1	0.5841	mg/L	0.00808	2.920	mg/L	0.0404	1.38%
Sb 206.836†	15.5	0.00516	mg/L	0.000719	0.02582	mg/L	0.003596	13.92%
Se 196.026†	9.6	0.00637	mg/L	0.003199	0.03187	mg/L	0.015993	50.18%
Si 288.158†	1904.1	0.8864	mg/L	0.01336	4.432	mg/L	0.0668	1.51%
Sn 189.927†	-26.9	-0.00406	mg/L	0.001584	-0.02032	mg/L	0.007918	38.96%
Sr 421.552†	236228.8	0.2522	mg/L	0.00475	1.261	mg/L	0.0238	1.88%
Ti 334.903†	48033.7	2.304	mg/L	0.0440	11.52	mg/L	0.220	1.91%
Tl 190.801†	-11.8	0.00157	mg/L	0.000781	0.00786	mg/L	0.003905	49.71%
V 292.402†	13097.8	0.09717	mg/L	0.000983	0.4858	mg/L	0.00491	1.01%
Zn 206.200†	3493.1	0.8617	mg/L	0.00902	4.308	mg/L	0.0451	1.05%

Sequence No.: 32
Sample ID: VR34 D SWC

Dilution: 5.000000X

Del

Autosampler Location: 319
Date Collected: 11/16/2012 11:14:26 AM
Data Type: Original

Nebulizer Parameters: VR34 D SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2228209.8	98.72	%	0.163				0.17%
ScR 361.383	285645.4	99.90	%	2.075				2.08%
Ag 328.068†	-7.4	-0.00000	mg/L	0.000185	-0.00001	mg/L	0.000926	>999.9%
Al 308.215†	111590.5	62.65	mg/L	1.506	313.3	mg/L	7.53	2.40%
As 188.979†	-13.1	0.07898	mg/L	0.002193	0.3949	mg/L	0.01097	2.78%
B 249.677†	90.5	0.01145	mg/L	0.000831	0.05727	mg/L	0.004156	7.26%
Ba 233.527†	3996.0	0.8657	mg/L	0.01883	4.328	mg/L	0.0942	2.18%
Be 313.042†	1425.9	0.00208	mg/L	0.000066	0.01040	mg/L	0.000328	3.15%
Ca 317.933†	346312.3	24.38	mg/L	0.650	121.9	mg/L	3.25	2.67%
Cd 228.802†	1101.4	0.03402	mg/L	0.000081	0.1701	mg/L	0.00041	0.24%
Co 228.616†	1701.7	0.04107	mg/L	0.000294	0.2053	mg/L	0.00147	0.72%
Cr 267.716†	806.9	0.1308	mg/L	0.00330	0.6542	mg/L	0.01651	2.52%
Cu 324.752†	24209.7	0.09636	mg/L	0.000220	0.4818	mg/L	0.00110	0.23%
Fe 273.955†	121297.0	92.51	mg/L	2.282	462.6	mg/L	11.41	2.47%
K 766.490†	20840.8	10.46	mg/L	0.225	52.28	mg/L	1.123	2.15%
Mg 279.077†	35805.6	24.23	mg/L	0.580	121.2	mg/L	2.90	2.39%
Mn 257.610†	122194.7	3.378	mg/L	0.0785	16.89	mg/L	0.393	2.32%
Mo 202.031†	62.7	0.00285	mg/L	0.000116	0.01426	mg/L	0.000582	4.08%
Na 589.592†	8754.6	0.6871	mg/L	0.01395	3.436	mg/L	0.0697	2.03%
Na 330.237†	-4.9	0.02561	mg/L	0.172896	0.1281	mg/L	0.86448	675.07%
Ni 231.604†	409.0	0.09924	mg/L	0.002402	0.4962	mg/L	0.01201	2.42%
Pb 220.353†	12219.4	1.538	mg/L	0.0072	7.692	mg/L	0.0360	0.47%
Sb 206.836†	31.8	0.00968	mg/L	0.001605	0.04841	mg/L	0.008024	16.58%
Se 196.026†	15.9	0.01055	mg/L	0.002747	0.05277	mg/L	0.013737	26.03%
Si 288.158†	1660.9	0.7748	mg/L	0.01301	3.874	mg/L	0.0651	1.68%
Sn 189.927†	-22.6	-0.00229	mg/L	0.002007	-0.01145	mg/L	0.010037	87.62%
Sr 421.552†	260310.4	0.2779	mg/L	0.00659	1.389	mg/L	0.0330	2.37%
Ti 334.903†	63704.2	3.055	mg/L	0.0743	15.28	mg/L	0.371	2.43%
Tl 190.801†	-13.5	0.00383	mg/L	0.001518	0.01915	mg/L	0.007591	39.65%
V 292.402†	17922.4	0.1330	mg/L	0.00003	0.6649	mg/L	0.00014	0.02%
Zn 206.200†	6134.8	1.513	mg/L	0.0338	7.567	mg/L	0.1691	2.23%

Sequence No.: 33
Sample ID: ~~VR34 A-L SWC~~ ZZZZZZ
Dilution: 25.000000X

Autosampler Location: 320
Date Collected: 11/16/2012 11:18:27 AM
Data Type: Original

Del
AH 11-20

Nebulizer Parameters: VR34 A-L SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VR34 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2187250.1	96.90	%	1.013				1.05%
ScR 361.383	275219.2	96.25	%	1.648				1.71%
Ag 328.068†	22.8	0.00014	mg/L	0.000097	0.00338	mg/L	0.002434	71.93%
Al 308.215†	19208.2	10.78	mg/L	0.233	269.6	mg/L	5.81	2.16%
As 188.979†	-3.0	0.01171	mg/L	0.000711	0.2928	mg/L	0.01778	6.07%
B 249.677†	22.7	0.00289	mg/L	0.000401	0.07215	mg/L	0.010026	13.90%
Ba 233.527†	821.5	0.1784	mg/L	0.00179	4.461	mg/L	0.0448	1.00%
Be 313.042†	368.1	0.00054	mg/L	0.000050	0.01359	mg/L	0.001257	9.25%
Ca 317.933†	75634.6	5.325	mg/L	0.0935	133.1	mg/L	2.34	1.76%
Cd 228.802†	247.2	0.00767	mg/L	0.000259	0.1919	mg/L	0.00647	3.37%
Co 228.616†	276.7	0.00670	mg/L	0.000296	0.1675	mg/L	0.00739	4.41%
Cr 267.716†	113.1	0.01833	mg/L	0.000602	0.4582	mg/L	0.01504	3.28%
Cu 324.752†	4786.8	0.01899	mg/L	0.000627	0.4748	mg/L	0.01569	3.30%
Fe 273.955†	21314.4	16.26	mg/L	0.369	406.4	mg/L	9.22	2.27%
K 766.490†	3380.5	1.696	mg/L	0.0359	42.40	mg/L	0.897	2.12%
Mg 279.077†	6360.5	4.305	mg/L	0.0398	107.6	mg/L	0.99	0.92%
Mn 257.610†	31199.3	0.8625	mg/L	0.01749	21.56	mg/L	0.437	2.03%
Mo 202.031†	10.6	0.00047	mg/L	0.000144	0.01170	mg/L	0.003597	30.76%
Na 589.592†	1456.3	0.1143	mg/L	0.00439	2.857	mg/L	0.1097	3.84%
Na 330.237†	-20.1	-0.7044	mg/L	0.23705	-17.61	mg/L	5.926	33.65%
Ni 231.604†	71.4	0.01733	mg/L	0.000712	0.4334	mg/L	0.01779	4.11%
Pb 220.353†	2898.6	0.3642	mg/L	0.01049	9.104	mg/L	0.2623	2.88%
Sb 206.836†	5.7	0.00176	mg/L	0.000865	0.04406	mg/L	0.021624	49.08%
Se 196.026†	2.2	0.00147	mg/L	0.002161	0.03667	mg/L	0.054031	147.33%
Si 288.158†	320.3	0.1494	mg/L	0.00724	3.734	mg/L	0.1810	4.85%
Sn 189.927†	-7.6	-0.00122	mg/L	0.000370	-0.03058	mg/L	0.009238	30.21%
Sr 421.552†	54317.7	0.05799	mg/L	0.001230	1.450	mg/L	0.0307	2.12%
Ti 334.903†	9925.9	0.4760	mg/L	0.00889	11.90	mg/L	0.222	1.87%
Tl 190.801†	-5.6	-0.00056	mg/L	0.000179	-0.01388	mg/L	0.004481	32.28%
V 292.402†	2758.0	0.02043	mg/L	0.000606	0.5108	mg/L	0.01514	2.96%
Zn 206.200†	1380.0	0.3404	mg/L	0.00341	8.510	mg/L	0.0852	1.00%

Sequence No.: 34
Sample ID: VR34 A SWC

Del

Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/16/2012 11:22:27 AM
Data Type: Original

Nebulizer Parameters: VR34 A SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2149190.2	95.22	%	2.720				2.86%
ScR 361.383	274539.6	96.02	%	3.268				3.40%
Ag 328.068†	86.9	0.00052	mg/L	0.000050	0.00261	mg/L	0.000251	9.60%
Al 308.215†	100242.6	56.28	mg/L	1.541	281.4	mg/L	7.71	2.74%
As 188.979†	3.2	0.07061	mg/L	0.000630	0.3530	mg/L	0.00315	0.89%
B 249.677†	104.1	0.01320	mg/L	0.001418	0.06602	mg/L	0.007089	10.74%
Ba 233.527†	4256.9	0.9244	mg/L	0.01945	4.622	mg/L	0.0972	2.10%
Be 313.042†	1460.6	0.00215	mg/L	0.000101	0.01073	mg/L	0.000503	4.69%
Ca 317.933†	400273.4	28.18	mg/L	0.771	140.9	mg/L	3.85	2.74%
Cd 228.802†	1238.1	0.03834	mg/L	0.002538	0.1917	mg/L	0.01269	6.62%
Co 228.616†	1449.5	0.03515	mg/L	0.002292	0.1757	mg/L	0.01146	6.52%
Cr 267.716†	637.1	0.1033	mg/L	0.00266	0.5166	mg/L	0.01332	2.58%
Cu 324.752†	23726.8	0.09431	mg/L	0.004927	0.4716	mg/L	0.02463	5.22%
Fe 273.955†	111389.1	84.96	mg/L	2.432	424.8	mg/L	12.16	2.86%
K 766.490†	17552.8	8.806	mg/L	0.2757	44.03	mg/L	1.379	3.13%
Mg 279.077†	31465.8	21.29	mg/L	0.578	106.5	mg/L	2.89	2.71%
Mn 257.610†	163584.7	4.522	mg/L	0.1237	22.61	mg/L	0.618	2.73%
Mo 202.031†	62.1	0.00278	mg/L	0.000298	0.01391	mg/L	0.001489	10.70%
Na 589.592†	7583.8	0.5952	mg/L	0.01381	2.976	mg/L	0.0691	2.32%
Na 330.237†	-8.1	-0.3027	mg/L	0.14388	-1.513	mg/L	0.7194	47.54%
Ni 231.604†	369.0	0.08955	mg/L	0.001376	0.4477	mg/L	0.00688	1.54%
Pb 220.353†	14245.2	1.790	mg/L	0.0865	8.952	mg/L	0.4324	4.83%
Sb 206.836†	39.8	0.01215	mg/L	0.001723	0.06077	mg/L	0.008617	14.18%
Se 196.026†	5.3	0.00351	mg/L	0.004529	0.01755	mg/L	0.022644	128.99%
Si 288.158†	1662.5	0.7751	mg/L	0.01863	3.876	mg/L	0.0932	2.40%
Sn 189.927†	-12.2	0.00078	mg/L	0.000380	0.00389	mg/L	0.001899	48.85%
Sr 421.552†	280196.3	0.2991	mg/L	0.00849	1.496	mg/L	0.0425	2.84%
Ti 334.903†	51468.5	2.468	mg/L	0.0700	12.34	mg/L	0.350	2.84%
Tl 190.801†	-12.6	0.00354	mg/L	0.000637	0.01771	mg/L	0.003187	17.99%
V 292.402†	13899.6	0.1029	mg/L	0.00528	0.5145	mg/L	0.02640	5.13%
Zn 206.200†	7180.2	1.771	mg/L	0.0375	8.856	mg/L	0.1875	2.12%

Sequence No.: 35
Sample ID: VR34 ADUP SWC

Dilution: 5.000000X

Del

Autosampler Location: 322
Date Collected: 11/16/2012 11:26:28 AM
Data Type: Original

Nebulizer Parameters: VR34 ADUP SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2206283.3	97.74	%	0.873				0.89%
ScR 361.383	278988.1	97.57	%	0.237				0.24%
Ag 328.068†	122.9	0.00073	mg/L	0.000181	0.00364	mg/L	0.000904	24.87%
Al 308.215†	98358.9	55.22	mg/L	0.599	276.1	mg/L	3.00	1.08%
As 188.979†	9.6	0.07571	mg/L	0.003589	0.3786	mg/L	0.01794	4.74%
B 249.677†	107.2	0.01360	mg/L	0.001376	0.06802	mg/L	0.006879	10.11%
Ba 233.527†	4302.2	0.9349	mg/L	0.00953	4.675	mg/L	0.0476	1.02%
Be 313.042†	1436.9	0.00211	mg/L	0.000012	0.01054	mg/L	0.000059	0.56%
Ca 317.933†	411346.9	28.96	mg/L	0.250	144.8	mg/L	1.25	0.86%
Cd 228.802†	1375.1	0.04267	mg/L	0.000340	0.2133	mg/L	0.00170	0.80%
Co 228.616†	1469.7	0.03564	mg/L	0.000469	0.1782	mg/L	0.00234	1.32%
Cr 267.716†	658.0	0.1066	mg/L	0.00090	0.5329	mg/L	0.00449	0.84%
Cu 324.752†	26404.5	0.1045	mg/L	0.00078	0.5223	mg/L	0.00392	0.75%
Fe 273.955†	107326.1	81.86	mg/L	0.886	409.3	mg/L	4.43	1.08%
K 766.490†	17592.3	8.826	mg/L	0.1074	44.13	mg/L	0.537	1.22%
Mg 279.077†	30919.8	20.92	mg/L	0.219	104.6	mg/L	1.10	1.05%
Mn 257.610†	165451.5	4.574	mg/L	0.0449	22.87	mg/L	0.225	0.98%
Mo 202.031†	69.9	0.00316	mg/L	0.000219	0.01582	mg/L	0.001097	6.93%
Na 589.592†	7271.9	0.5707	mg/L	0.00645	2.854	mg/L	0.0322	1.13%
Na 330.237†	-7.9	-0.3184	mg/L	0.15856	-1.592	mg/L	0.7928	49.80%
Ni 231.604†	359.1	0.08713	mg/L	0.000685	0.4356	mg/L	0.00342	0.79%
Pb 220.353†	15532.7	1.951	mg/L	0.0132	9.756	mg/L	0.0658	0.67%
Sb 206.836†	36.3	0.01109	mg/L	0.000916	0.05544	mg/L	0.004578	8.26%
Se 196.026†	7.5	0.00498	mg/L	0.003074	0.02490	mg/L	0.015370	61.74%
Si 288.158†	1571.7	0.7329	mg/L	0.00364	3.665	mg/L	0.0182	0.50%
Sn 189.927†	-6.7	0.00229	mg/L	0.001595	0.01146	mg/L	0.007974	69.60%
Sr 421.552†	293695.6	0.3135	mg/L	0.00346	1.568	mg/L	0.0173	1.10%
Ti 334.903†	52766.0	2.530	mg/L	0.0270	12.65	mg/L	0.135	1.07%
Tl 190.801†	-14.8	0.00230	mg/L	0.003461	0.01148	mg/L	0.017305	150.69%
V 292.402†	14508.1	0.1076	mg/L	0.00070	0.5382	mg/L	0.00350	0.65%
Zn 206.200†	7612.4	1.878	mg/L	0.0191	9.389	mg/L	0.0954	1.02%

Sequence No.: 36
Sample ID: VR34 ASPK SWC

Dilution: 5.000000X

Del

Autosampler Location: 323
Date Collected: 11/16/2012 11:30:29 AM
Data Type: Original

Nebulizer Parameters: VR34 ASPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2155307.2	95.49	%	1.278				1.34%
ScR 361.383	278894.3	97.54	%	1.481				1.52%
Ag 328.068†	35135.6	0.1989	mg/L	0.00549	0.9946	mg/L	0.02744	2.76%
Al 308.215†	99785.7	56.02	mg/L	0.748	280.1	mg/L	3.74	1.34%
As 188.979†	1473.8	0.8465	mg/L	0.02588	4.233	mg/L	0.1294	3.06%
B 249.677†	118.9	0.01466	mg/L	0.000535	0.07329	mg/L	0.002676	3.65%
Ba 233.527†	8089.5	1.770	mg/L	0.0192	8.851	mg/L	0.0958	1.08%
Be 313.042†	133573.2	0.2008	mg/L	0.00289	1.004	mg/L	0.0145	1.44%
Ca 317.933†	456894.9	32.17	mg/L	0.464	160.8	mg/L	2.32	1.44%
Cd 228.802†	8430.6	0.2604	mg/L	0.00813	1.302	mg/L	0.0406	3.12%
Co 228.616†	8846.6	0.2451	mg/L	0.00800	1.225	mg/L	0.0400	3.26%
Cr 267.716†	2015.5	0.3246	mg/L	0.00381	1.623	mg/L	0.0191	1.18%
Cu 324.752†	79569.8	0.3088	mg/L	0.00873	1.544	mg/L	0.0436	2.83%
Fe 273.955†	104340.3	79.58	mg/L	1.191	397.9	mg/L	5.95	1.50%
K 766.490†	25832.6	12.96	mg/L	0.213	64.80	mg/L	1.065	1.64%
Mg 279.077†	37600.8	25.46	mg/L	0.345	127.3	mg/L	1.73	1.36%
Mn 257.610†	166529.3	4.604	mg/L	0.0719	23.02	mg/L	0.359	1.56%
Mo 202.031†	76.3	0.00344	mg/L	0.000281	0.01718	mg/L	0.001407	8.19%
Na 589.592†	57925.8	4.546	mg/L	0.0528	22.73	mg/L	0.264	1.16%
Na 330.237†	115.9	3.912	mg/L	0.2136	19.56	mg/L	1.068	5.46%
Ni 231.604†	1204.8	0.2920	mg/L	0.00195	1.460	mg/L	0.0097	0.67%
Pb 220.353†	22106.0	2.773	mg/L	0.0879	13.87	mg/L	0.440	3.17%
Sb 206.836†	44.7	0.01121	mg/L	0.000230	0.05605	mg/L	0.001148	2.05%
Se 196.026†	1178.4	0.7912	mg/L	0.03004	3.956	mg/L	0.1502	3.80%
Si 288.158†	1434.3	0.6705	mg/L	0.00502	3.352	mg/L	0.0251	0.75%
Sn 189.927†	-19.4	-0.00057	mg/L	0.001348	-0.00283	mg/L	0.006738	237.86%
Sr 421.552†	472512.9	0.5044	mg/L	0.00674	2.522	mg/L	0.0337	1.34%
Ti 334.903†	49863.7	2.391	mg/L	0.0331	11.95	mg/L	0.166	1.38%
Tl 190.801†	1942.9	0.7659	mg/L	0.02279	3.829	mg/L	0.1140	2.98%
V 292.402†	40132.0	0.3044	mg/L	0.00810	1.522	mg/L	0.0405	2.66%
Zn 206.200†	8205.6	2.024	mg/L	0.0239	10.12	mg/L	0.120	1.18%

Sequence No.: 37
Sample ID: ~~VR34 APOST SWC~~ zzzzzz
Dilution: 5.000000X

Autosampler Location: 324
Date Collected: 11/16/2012 11:34:16 AM
Data Type: Original

Nebulizer Parameters: VR34 APOST SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2148807.7	95.20	%	0.624				0.66%
ScR 361.383	274992.8	96.18	%	0.850				0.88%
Ag 328.068†	93219.8	0.5277	mg/L	0.00519	2.638	mg/L	0.0259	0.98%
Al 308.215†	103687.8	58.21	mg/L	0.871	291.0	mg/L	4.36	1.50%
As 188.979†	4052.1	2.213	mg/L	0.0162	11.07	mg/L	0.081	0.73%
B 249.677†	107.1	0.01243	mg/L	0.000485	0.06213	mg/L	0.002426	3.90%
Ba 233.527†	13982.7	3.068	mg/L	0.0368	15.34	mg/L	0.184	1.20%
Be 313.042†	335091.5	0.5037	mg/L	0.00798	2.519	mg/L	0.0399	1.58%
Ca 317.933†	545804.5	38.43	mg/L	0.513	192.1	mg/L	2.56	1.33%
Cd 228.802†	20242.0	0.6244	mg/L	0.00481	3.122	mg/L	0.0241	0.77%
Co 228.616†	21394.7	0.6006	mg/L	0.00424	3.003	mg/L	0.0212	0.71%
Cr 267.716†	3962.4	0.6375	mg/L	0.00711	3.188	mg/L	0.0355	1.11%
Cu 324.752†	167579.5	0.6476	mg/L	0.00408	3.238	mg/L	0.0204	0.63%
Fe 273.955†	113193.9	86.33	mg/L	1.368	431.6	mg/L	6.84	1.59%
K 766.490†	38024.5	19.08	mg/L	0.200	95.39	mg/L	0.999	1.05%
Mg 279.077†	46464.4	31.46	mg/L	0.391	157.3	mg/L	1.95	1.24%
Mn 257.610†	181041.6	5.005	mg/L	0.0820	25.02	mg/L	0.410	1.64%
Mo 202.031†	80.3	0.00355	mg/L	0.000140	0.01777	mg/L	0.000699	3.93%
Na 589.592†	133883.8	10.51	mg/L	0.151	52.54	mg/L	0.753	1.43%
Na 330.237†	299.8	10.25	mg/L	0.256	51.26	mg/L	1.281	2.50%
Ni 231.604†	2437.1	0.5905	mg/L	0.00660	2.952	mg/L	0.0330	1.12%
Pb 220.353†	32042.4	4.015	mg/L	0.0337	20.08	mg/L	0.168	0.84%
Sb 206.836†	57.5	0.01200	mg/L	0.001946	0.05999	mg/L	0.009732	16.22%
Se 196.026†	3217.5	2.160	mg/L	0.0138	10.80	mg/L	0.069	0.64%
Si 288.158†	1612.6	0.7553	mg/L	0.00824	3.777	mg/L	0.0412	1.09%
Sn 189.927†	-19.7	0.00020	mg/L	0.000983	0.00100	mg/L	0.004913	489.65%
Sr 421.552†	743418.8	0.7936	mg/L	0.01012	3.968	mg/L	0.0506	1.28%
Ti 334.903†	51370.6	2.463	mg/L	0.0402	12.31	mg/L	0.201	1.63%
Tl 190.801†	5286.3	2.071	mg/L	0.0209	10.36	mg/L	0.104	1.01%
V 292.402†	84044.3	0.6408	mg/L	0.00357	3.204	mg/L	0.0179	0.56%
Zn 206.200†	9142.9	2.255	mg/L	0.0202	11.28	mg/L	0.101	0.89%

Sequence No.: 38
Sample ID: VR34 MB1SPK SWC

Dilution: 2.000000X

Del

Autosampler Location: 325
Date Collected: 11/16/2012 11:38:04 AM
Data Type: Original

Nebulizer Parameters: VR34 MB1SPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2118596.6	93.86	%	0.984				1.05%
ScR 361.383	272914.4	95.45	%	2.314				2.42%
Ag 328.068†	95223.6	0.5390	mg/L	0.00326	1.078	mg/L	0.0065	0.61%
Al 308.215†	3818.1	2.136	mg/L	0.0884	4.272	mg/L	0.1767	4.14%
As 188.979†	3858.0	2.042	mg/L	0.0131	4.083	mg/L	0.0261	0.64%
B 249.677†	8.2	-0.00006	mg/L	0.000541	-0.00011	mg/L	0.001082	941.96%
Ba 233.527†	9927.3	2.188	mg/L	0.0800	4.376	mg/L	0.1601	3.66%
Be 313.042†	339236.1	0.5100	mg/L	0.02053	1.020	mg/L	0.0411	4.03%
Ca 317.933†	147491.2	10.38	mg/L	0.416	20.77	mg/L	0.832	4.00%
Cd 228.802†	17929.9	0.5528	mg/L	0.00455	1.106	mg/L	0.0091	0.82%
Co 228.616†	18873.9	0.5350	mg/L	0.00567	1.070	mg/L	0.0113	1.06%
Cr 267.716†	3371.1	0.5416	mg/L	0.01994	1.083	mg/L	0.0399	3.68%
Cu 324.752†	134376.4	0.5168	mg/L	0.00333	1.034	mg/L	0.0067	0.64%
Fe 273.955†	2852.0	2.171	mg/L	0.0890	4.343	mg/L	0.1781	4.10%
K 766.490†	20795.5	10.43	mg/L	0.433	20.87	mg/L	0.866	4.15%
Mg 279.077†	15980.7	10.84	mg/L	0.416	21.67	mg/L	0.832	3.84%
Mn 257.610†	19414.4	0.5370	mg/L	0.02047	1.074	mg/L	0.0409	3.81%
Mo 202.031†	23.2	0.00102	mg/L	0.000127	0.00203	mg/L	0.000255	12.52%
Na 589.592†	127778.0	10.03	mg/L	0.400	20.06	mg/L	0.799	3.98%
Na 330.237†	281.9	9.640	mg/L	0.1920	19.28	mg/L	0.384	1.99%
Ni 231.604†	2112.6	0.5117	mg/L	0.01770	1.023	mg/L	0.0354	3.46%
Pb 220.353†	16366.2	2.046	mg/L	0.0218	4.092	mg/L	0.0436	1.06%
Sb 206.836†	16.1	-0.00081	mg/L	0.002329	-0.00162	mg/L	0.004659	287.03%
Se 196.026†	3056.6	2.052	mg/L	0.0105	4.105	mg/L	0.0211	0.51%
Si 288.158†	5.3	0.00582	mg/L	0.002194	0.01164	mg/L	0.004389	37.69%
Sn 189.927†	-26.8	-0.00553	mg/L	0.000869	-0.01105	mg/L	0.001738	15.72%
Sr 421.552†	473293.3	0.5053	mg/L	0.02004	1.011	mg/L	0.0401	3.97%
Ti 334.903†	66.2	0.00257	mg/L	0.000247	0.00514	mg/L	0.000494	9.61%
Tl 190.801†	5139.1	2.005	mg/L	0.0103	4.011	mg/L	0.0206	0.51%
V 292.402†	69887.5	0.5360	mg/L	0.00430	1.072	mg/L	0.0086	0.80%
Zn 206.200†	2099.1	0.5179	mg/L	0.01793	1.036	mg/L	0.0359	3.46%

Sequence No.: 39
Sample ID: CV 5

Autosampler Location: 7
Date Collected: 11/16/2012 11:42:05 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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2206811.7	97.77	%	0.434				0.44%
ScR 361.383	266266.9	93.12	%	2.816				3.02%
Ag 328.068†	177279.2	1.003	mg/L	0.0108	1.003	mg/L	0.0108	1.07%
Al 308.215†	3956.3	2.186	mg/L	0.0703	2.186	mg/L	0.0703	3.22%
As 188.979†	3793.0	2.035	mg/L	0.0044	2.035	mg/L	0.0044	0.22%
B 249.677†	8173.9	1.042	mg/L	0.0317	1.042	mg/L	0.0317	3.04%
Ba 233.527†	5077.2	1.119	mg/L	0.0364	1.119	mg/L	0.0364	3.26%
Be 313.042†	675541.0	1.016	mg/L	0.0276	1.016	mg/L	0.0276	2.71%
Ca 317.933†	29753.8	2.095	mg/L	0.0636	2.095	mg/L	0.0636	3.04%
Cd 228.802†	34050.4	1.062	mg/L	0.0087	1.062	mg/L	0.0087	0.82%
Co 228.616†	36980.3	1.047	mg/L	0.0100	1.047	mg/L	0.0100	0.95%
Cr 267.716†	6911.9	1.112	mg/L	0.0349	1.112	mg/L	0.0349	3.14%
Cu 324.752†	268239.0	1.031	mg/L	0.0107	1.031	mg/L	0.0107	1.04%
Fe 273.955†	2910.9	2.213	mg/L	0.0655	2.213	mg/L	0.0655	2.96%
K 766.490†	42707.1	21.43	mg/L	0.662	21.43	mg/L	0.662	3.09%
Mg 279.077†	3235.2	2.201	mg/L	0.0697	2.201	mg/L	0.0697	3.17%
Mn 257.610†	38476.2	1.064	mg/L	0.0319	1.064	mg/L	0.0319	2.99%
Mo 202.031†	21292.7	1.061	mg/L	0.0036	1.061	mg/L	0.0036	0.34%
Na 589.592†	670458.8	52.62	mg/L	1.692	52.62	mg/L	1.692	3.21%
Na 330.237†	1591.2	55.27	mg/L	1.214	55.27	mg/L	1.214	2.20%
Ni 231.604†	4340.7	1.054	mg/L	0.0331	1.054	mg/L	0.0331	3.14%
Pb 220.353†	16595.5	2.075	mg/L	0.0056	2.075	mg/L	0.0056	0.27%
Sb 206.836†	7151.3	2.185	mg/L	0.0071	2.185	mg/L	0.0071	0.33%
Se 196.026†	2978.9	2.000	mg/L	0.0040	2.000	mg/L	0.0040	0.20%
Si 288.158†	4849.5	2.253	mg/L	0.0639	2.253	mg/L	0.0639	2.84%
Sn 189.927†	4069.2	1.045	mg/L	0.0064	1.045	mg/L	0.0064	0.61%
Sr 421.552†	960513.9	1.025	mg/L	0.0312	1.025	mg/L	0.0312	3.04%
Ti 334.903†	22729.5	1.089	mg/L	0.0331	1.089	mg/L	0.0331	3.04%
Tl 190.801†	5176.2	2.016	mg/L	0.0027	2.016	mg/L	0.0027	0.13%
V 292.402†	135536.1	1.040	mg/L	0.0121	1.040	mg/L	0.0121	1.16%
Zn 206.200†	4397.6	1.085	mg/L	0.0322	1.085	mg/L	0.0322	2.97%

Sequence No.: 40
Sample ID: CB 5

Autosampler Location: 1
Date Collected: 11/16/2012 11:46:57 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	216.0 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	2218651.4	98.29	%	0.653				0.66%
ScR 361.383	277441.1	97.03	%	0.321				0.33%
Ag 328.068†	27.1	0.00015	mg/L	0.000234	0.00015	mg/L	0.000234	153.05%
Al 308.215†	32.0	0.01793	mg/L	0.001828	0.01793	mg/L	0.001828	10.20%
As 188.979†	-1.1	-0.00053	mg/L	0.001862	-0.00053	mg/L	0.001862	354.04%
B 249.677†	17.8	0.00227	mg/L	0.000857	0.00227	mg/L	0.000857	37.76%
Ba 233.527†	-2.4	-0.00053	mg/L	0.000551	-0.00053	mg/L	0.000551	104.88%
Be 313.042†	151.8	0.00023	mg/L	0.000029	0.00023	mg/L	0.000029	12.63%
Ca 317.933†	30.8	0.00217	mg/L	0.000687	0.00217	mg/L	0.000687	31.70%
Cd 228.802†	-4.9	-0.00015	mg/L	0.000198	-0.00015	mg/L	0.000198	130.78%
Co 228.616†	-14.0	-0.00040	mg/L	0.000137	-0.00040	mg/L	0.000137	34.34%
Cr 267.716†	-8.8	-0.00142	mg/L	0.000553	-0.00142	mg/L	0.000553	38.95%
Cu 324.752†	72.2	0.00028	mg/L	0.000161	0.00028	mg/L	0.000161	57.89%
Fe 273.955†	8.8	0.00669	mg/L	0.000954	0.00669	mg/L	0.000954	14.25%
K 766.490†	34.4	0.01727	mg/L	0.006265	0.01727	mg/L	0.006265	36.27%
Mg 279.077†	2.7	0.00185	mg/L	0.005181	0.00185	mg/L	0.005181	280.71%
Mn 257.610†	0.9	0.00002	mg/L	0.000083	0.00002	mg/L	0.000083	335.33%
Mo 202.031†	16.8	0.00084	mg/L	0.000204	0.00084	mg/L	0.000204	24.29%
Na 589.592†	61.4	0.00482	mg/L	0.002792	0.00482	mg/L	0.002792	57.96%
Na 330.237†	-21.2	-0.7361	mg/L	0.25603	-0.7361	mg/L	0.25603	34.78%
Ni 231.604†	1.5	0.00038	mg/L	0.001510	0.00038	mg/L	0.001510	401.09%
Pb 220.353†	0.7	0.00009	mg/L	0.000373	0.00009	mg/L	0.000373	424.78%
Sb 206.836†	10.7	0.00330	mg/L	0.002100	0.00330	mg/L	0.002100	63.74%
Se 196.026†	3.4	0.00230	mg/L	0.003741	0.00230	mg/L	0.003741	162.81%
Si 288.158†	7.5	0.00351	mg/L	0.001787	0.00351	mg/L	0.001787	50.95%
Sn 189.927†	-1.3	-0.00033	mg/L	0.000502	-0.00033	mg/L	0.000502	153.20%
Sr 421.552†	185.5	0.00020	mg/L	0.000059	0.00020	mg/L	0.000059	29.57%
Ti 334.903†	28.3	0.00136	mg/L	0.000636	0.00136	mg/L	0.000636	46.83%
Tl 190.801†	3.1	0.00120	mg/L	0.000968	0.00120	mg/L	0.000968	80.31%
V 292.402†	-19.2	-0.00015	mg/L	0.000076	-0.00015	mg/L	0.000076	49.44%
Zn 206.200†	0.3	0.00008	mg/L	0.000471	0.00008	mg/L	0.000471	573.91%

User canceled analysis.

Analysis Begun

Start Time: 11/16/2012 12:11:01 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1116.sif
Batch ID:
Results Data Set: I2121116
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: 11/16/2012 12:11:02 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	2324139.6	103.0	%	0.56				0.55%
ScR 361.383	288299.8	100.8	%	1.49				1.48%
Ag 328.068†	166891.9	0.9447	mg/L	0.00330	0.9447	mg/L	0.00330	0.35%
Al 308.215†	3587.2	1.981	mg/L	0.0332	1.981	mg/L	0.0332	1.68%
As 188.979†	3584.7	1.922	mg/L	0.0096	1.922	mg/L	0.0096	0.50%
B 249.677†	7474.7	0.9531	mg/L	0.01492	0.9531	mg/L	0.01492	1.57%
Ba 233.527†	4620.9	1.018	mg/L	0.0147	1.018	mg/L	0.0147	1.44%
Be 313.042†	617768.5	0.9287	mg/L	0.01469	0.9287	mg/L	0.01469	1.58%
Ca 317.933†	27095.7	1.908	mg/L	0.0349	1.908	mg/L	0.0349	1.83%
Cd 228.802†	32028.7	0.9992	mg/L	0.00562	0.9992	mg/L	0.00562	0.56%
Co 228.616†	34866.8	0.9868	mg/L	0.00512	0.9868	mg/L	0.00512	0.52%
Cr 267.716†	6314.1	1.016	mg/L	0.0173	1.016	mg/L	0.0173	1.70%
Cu 324.752†	252729.2	0.9715	mg/L	0.00484	0.9715	mg/L	0.00484	0.50%
Fe 273.955†	2643.1	2.009	mg/L	0.0365	2.009	mg/L	0.0365	1.82%
K 766.490†	39054.1	19.59	mg/L	0.281	19.59	mg/L	0.281	1.44%
Mg 279.077†	2937.9	1.999	mg/L	0.0297	1.999	mg/L	0.0297	1.48%
Mn 257.610†	35203.9	0.9734	mg/L	0.01460	0.9734	mg/L	0.01460	1.50%
Mo 202.031†	20134.6	1.003	mg/L	0.0058	1.003	mg/L	0.0058	0.58%
Na 589.592†	612176.7	48.05	mg/L	0.793	48.05	mg/L	0.793	1.65%
Na 330.237†	1469.6	51.04	mg/L	0.691	51.04	mg/L	0.691	1.35%
Ni 231.604†	3965.2	0.9624	mg/L	0.01659	0.9624	mg/L	0.01659	1.72%
Pb 220.353†	15666.5	1.959	mg/L	0.0107	1.959	mg/L	0.0107	0.54%
Sb 206.836†	6748.1	2.063	mg/L	0.0158	2.063	mg/L	0.0158	0.77%
Se 196.026†	2818.3	1.892	mg/L	0.0097	1.892	mg/L	0.0097	0.51%
Si 288.158†	4428.6	2.057	mg/L	0.0344	2.057	mg/L	0.0344	1.67%
Sn 189.927†	3852.5	0.9897	mg/L	0.00754	0.9897	mg/L	0.00754	0.76%
Sr 421.552†	877778.5	0.9370	mg/L	0.01461	0.9370	mg/L	0.01461	1.56%
Ti 334.903†	20775.3	0.9957	mg/L	0.01523	0.9957	mg/L	0.01523	1.53%
Tl 190.801†	4893.6	1.906	mg/L	0.0106	1.906	mg/L	0.0106	0.56%
V 292.402†	127575.6	0.9786	mg/L	0.00470	0.9786	mg/L	0.00470	0.48%
Zn 206.200†	4004.8	0.9876	mg/L	0.01621	0.9876	mg/L	0.01621	1.64%

Sequence No.: 2
Sample ID: CB 6

Autosampler Location: 1
Date Collected: 11/16/2012 12:15:55 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	216.0 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	2221827.8	98.43	%	0.875				0.89%
ScR 361.383	286411.0	100.2	%	0.74				0.74%
Ag 328.068†	65.6	0.00037	mg/L	0.000197	0.00037	mg/L	0.000197	53.03%
Al 308.215†	12.8	0.00715	mg/L	0.009959	0.00715	mg/L	0.009959	139.24%
As 188.979†	-0.3	-0.00012	mg/L	0.001127	-0.00012	mg/L	0.001127	952.53%
B 249.677†	10.2	0.00131	mg/L	0.001419	0.00131	mg/L	0.001419	108.62%
Ba 233.527†	0.3	0.00006	mg/L	0.000663	0.00006	mg/L	0.000663	>999.9%
Be 313.042†	147.6	0.00022	mg/L	0.000040	0.00022	mg/L	0.000040	18.06%
Ca 317.933†	14.5	0.00102	mg/L	0.000511	0.00102	mg/L	0.000511	49.91%
Cd 228.802†	-3.1	-0.00010	mg/L	0.000019	-0.00010	mg/L	0.000019	19.22%
Co 228.616†	-15.9	-0.00045	mg/L	0.000096	-0.00045	mg/L	0.000096	21.16%
Cr 267.716†	-7.1	-0.00115	mg/L	0.000209	-0.00115	mg/L	0.000209	18.21%
Cu 324.752†	79.5	0.00031	mg/L	0.000176	0.00031	mg/L	0.000176	57.75%
Fe 273.955†	3.3	0.00250	mg/L	0.001062	0.00250	mg/L	0.001062	42.41%
K 766.490†	23.4	0.01175	mg/L	0.023372	0.01175	mg/L	0.023372	198.86%
Mg 279.077†	5.9	0.00398	mg/L	0.003514	0.00398	mg/L	0.003514	88.37%
Mn 257.610†	-4.8	-0.00013	mg/L	0.000107	-0.00013	mg/L	0.000107	80.68%
Mo 202.031†	11.6	0.00058	mg/L	0.000245	0.00058	mg/L	0.000245	42.30%
Na 589.592†	106.2	0.00834	mg/L	0.001775	0.00834	mg/L	0.001775	21.29%
Na 330.237†	-14.2	-0.4928	mg/L	0.06911	-0.4928	mg/L	0.06911	14.02%
Ni 231.604†	-3.0	-0.00072	mg/L	0.002398	-0.00072	mg/L	0.002398	331.34%
Pb 220.353†	-3.4	-0.00042	mg/L	0.000302	-0.00042	mg/L	0.000302	71.49%
Sb 206.836†	5.8	0.00178	mg/L	0.001089	0.00178	mg/L	0.001089	61.18%
Se 196.026†	6.4	0.00429	mg/L	0.004231	0.00429	mg/L	0.004231	98.70%
Si 288.158†	0.7	0.00031	mg/L	0.002107	0.00031	mg/L	0.002107	682.33%
Sn 189.927†	-2.0	-0.00050	mg/L	0.000280	-0.00050	mg/L	0.000280	55.81%
Sr 421.552†	169.9	0.00018	mg/L	0.000038	0.00018	mg/L	0.000038	21.11%
Ti 334.903†	30.2	0.00145	mg/L	0.000156	0.00145	mg/L	0.000156	10.75%
Tl 190.801†	0.9	0.00034	mg/L	0.000606	0.00034	mg/L	0.000606	176.61%
V 292.402†	-18.7	-0.00015	mg/L	0.000190	-0.00015	mg/L	0.000190	128.09%
Zn 206.200†	-3.2	-0.00080	mg/L	0.000448	-0.00080	mg/L	0.000448	55.95%

Sequence No.: 3
Sample ID: VR34 E SWC

Autosampler Location: 326
Date Collected: 11/16/2012 12:20:11 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 E SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2305695.4	102.1	%	0.19				0.19%
ScR 361.383	289630.4	101.3	%	1.58				1.56%
Ag 328.068†	20.1	0.00015	mg/L	0.000364	0.00073	mg/L	0.001822	251.17%
Al 308.215†	111642.1	62.68	mg/L	0.947	313.4	mg/L	4.74	1.51%
As 188.979†	20.6	0.07925	mg/L	0.001194	0.3963	mg/L	0.00597	1.51%
B 249.677†	100.6	0.01277	mg/L	0.000808	0.06386	mg/L	0.004041	6.33%
Ba 233.527†	5422.5	1.183	mg/L	0.0224	5.916	mg/L	0.1122	1.90%
Be 313.042†	1599.8	0.00235	mg/L	0.000052	0.01177	mg/L	0.000262	2.22%
Ca 317.933†	874842.8	61.59	mg/L	0.962	308.0	mg/L	4.81	1.56%
Cd 228.802†	1262.5	0.03915	mg/L	0.000172	0.1958	mg/L	0.00086	0.44%
Co 228.616†	1341.9	0.03212	mg/L	0.000046	0.1606	mg/L	0.00023	0.14%
Cr 267.716†	621.0	0.1002	mg/L	0.00052	0.5010	mg/L	0.00260	0.52%
Cu 324.752†	32638.6	0.1281	mg/L	0.00073	0.6406	mg/L	0.00363	0.57%
Fe 273.955†	97146.3	74.09	mg/L	1.170	370.5	mg/L	5.85	1.58%
K 766.490†	13635.8	6.841	mg/L	0.0950	34.21	mg/L	0.475	1.39%
Mg 279.077†	27907.2	18.89	mg/L	0.297	94.43	mg/L	1.484	1.57%
Mn 257.610†	159658.6	4.413	mg/L	0.0710	22.07	mg/L	0.355	1.61%
Mo 202.031†	89.9	0.00381	mg/L	0.000420	0.01905	mg/L	0.002102	11.04%
Na 589.592†	9675.6	0.7594	mg/L	0.01357	3.797	mg/L	0.0678	1.79%
Na 330.237†	10.9	0.3145	mg/L	0.17710	1.572	mg/L	0.8855	56.31%
Ni 231.604†	365.3	0.08864	mg/L	0.000587	0.4432	mg/L	0.00294	0.66%
Pb 220.353†	9738.5	1.229	mg/L	0.0080	6.145	mg/L	0.0398	0.65%
Sb 206.836†	24.9	0.00758	mg/L	0.002648	0.03792	mg/L	0.013239	34.92%
Se 196.026†	4.1	0.00270	mg/L	0.004212	0.01348	mg/L	0.021059	156.17%
Si 288.158†	2493.9	1.161	mg/L	0.0230	5.806	mg/L	0.1149	1.98%
Sn 189.927†	-47.4	-0.00414	mg/L	0.000979	-0.02070	mg/L	0.004894	23.64%
Sr 421.552†	597556.4	0.6379	mg/L	0.01014	3.190	mg/L	0.0507	1.59%
Ti 334.903†	52453.9	2.514	mg/L	0.0419	12.57	mg/L	0.209	1.67%
Tl 190.801†	-3.6	0.00590	mg/L	0.001832	0.02951	mg/L	0.009162	31.05%
V 292.402†	14141.7	0.1051	mg/L	0.00034	0.5254	mg/L	0.00171	0.33%
Zn 206.200†	7849.8	1.936	mg/L	0.0337	9.682	mg/L	0.1687	1.74%

Sequence No.: 4
Sample ID: VR34 F SWC

Autosampler Location: 327
Date Collected: 11/16/2012 12:24:14 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 F SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2262529.8	100.2	%	0.88				0.88%
ScR 361.383	293271.5	102.6	%	0.94				0.91%
Ag 328.068†	41.6	0.00026	mg/L	0.000199	0.00132	mg/L	0.000997	75.25%
Al 308.215†	85276.8	47.88	mg/L	0.587	239.4	mg/L	2.94	1.23%
As 188.979†	-66.8	0.03571	mg/L	0.001981	0.1786	mg/L	0.00990	5.55%
B 249.677†	106.0	0.01348	mg/L	0.000809	0.06739	mg/L	0.004046	6.00%
Ba 233.527†	4161.0	0.9081	mg/L	0.00639	4.540	mg/L	0.0320	0.70%
Be 313.042†	973.3	0.00141	mg/L	0.000048	0.00706	mg/L	0.000238	3.38%
Ca 317.933†	392942.7	27.66	mg/L	0.295	138.3	mg/L	1.47	1.06%
Cd 228.802†	1025.4	0.03210	mg/L	0.000474	0.1605	mg/L	0.00237	1.48%
Co 228.616†	975.4	0.02195	mg/L	0.000395	0.1097	mg/L	0.00197	1.80%
Cr 267.716†	410.9	0.06655	mg/L	0.000217	0.3328	mg/L	0.00109	0.33%
Cu 324.752†	20743.7	0.08159	mg/L	0.000648	0.4080	mg/L	0.00324	0.79%
Fe 273.955†	73238.6	55.86	mg/L	0.518	279.3	mg/L	2.59	0.93%
K 766.490†	18804.8	9.435	mg/L	0.1885	47.17	mg/L	0.943	2.00%
Mg 279.077†	21746.6	14.72	mg/L	0.171	73.59	mg/L	0.856	1.16%
Mn 257.610†	78101.3	2.159	mg/L	0.0235	10.80	mg/L	0.117	1.09%
Mo 202.031†	74.3	0.00340	mg/L	0.000308	0.01700	mg/L	0.001541	9.07%
Na 589.592†	9134.2	0.7169	mg/L	0.00824	3.585	mg/L	0.0412	1.15%
Na 330.237†	9.1	0.4431	mg/L	0.08408	2.215	mg/L	0.4204	18.98%
Ni 231.604†	174.4	0.04233	mg/L	0.002002	0.2116	mg/L	0.01001	4.73%
Pb 220.353†	10484.7	1.320	mg/L	0.0110	6.598	mg/L	0.0549	0.83%
Sb 206.836†	35.1	0.01124	mg/L	0.001921	0.05621	mg/L	0.009606	17.09%
Se 196.026†	5.5	0.00360	mg/L	0.004589	0.01798	mg/L	0.022946	127.63%
Si 288.158†	2613.0	1.216	mg/L	0.0182	6.080	mg/L	0.0912	1.50%
Sn 189.927†	-19.1	-0.00106	mg/L	0.001014	-0.00530	mg/L	0.005072	95.72%
Sr 421.552†	272940.3	0.2914	mg/L	0.00385	1.457	mg/L	0.0192	1.32%
Ti 334.903†	52966.3	2.540	mg/L	0.0303	12.70	mg/L	0.151	1.19%
Tl 190.801†	-1.4	0.00492	mg/L	0.002390	0.02459	mg/L	0.011950	48.60%
V 292.402†	13436.2	0.09983	mg/L	0.000845	0.4991	mg/L	0.00423	0.85%
Zn 206.200†	5556.8	1.371	mg/L	0.0159	6.854	mg/L	0.0795	1.16%

Sequence No.: 5
Sample ID: VR34 G SWC

Autosampler Location: 328
Date Collected: 11/16/2012 12:28:15 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 G SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2290367.3	101.5	%	0.60				0.59%
ScR 361.383	288720.5	101.0	%	1.24				1.23%
Ag 328.068†	165.8	0.00097	mg/L	0.000093	0.00485	mg/L	0.000464	9.58%
Al 308.215†	77576.9	43.55	mg/L	0.542	217.8	mg/L	2.71	1.24%
As 188.979†	-38.0	0.04833	mg/L	0.001662	0.2417	mg/L	0.00831	3.44%
B 249.677†	81.4	0.01033	mg/L	0.000529	0.05166	mg/L	0.002645	5.12%
Ba 233.527†	2449.1	0.5305	mg/L	0.00583	2.653	mg/L	0.0291	1.10%
Be 313.042†	973.2	0.00141	mg/L	0.000042	0.00706	mg/L	0.000212	3.01%
Ca 317.933†	420814.1	29.63	mg/L	0.403	148.1	mg/L	2.02	1.36%
Cd 228.802†	1367.3	0.04279	mg/L	0.000460	0.2139	mg/L	0.00230	1.08%
Co 228.616†	963.6	0.02180	mg/L	0.000170	0.1090	mg/L	0.00085	0.78%
Cr 267.716†	437.8	0.07088	mg/L	0.000222	0.3544	mg/L	0.00111	0.31%
Cu 324.752†	23501.1	0.09225	mg/L	0.000684	0.4613	mg/L	0.00342	0.74%
Fe 273.955†	74413.0	56.75	mg/L	0.869	283.8	mg/L	4.34	1.53%
K 766.490†	16774.2	8.416	mg/L	0.0981	42.08	mg/L	0.490	1.17%
Mg 279.077†	22281.1	15.08	mg/L	0.205	75.40	mg/L	1.024	1.36%
Mn 257.610†	63140.0	1.746	mg/L	0.0251	8.728	mg/L	0.1254	1.44%
Mo 202.031†	57.0	0.00252	mg/L	0.000222	0.01258	mg/L	0.001108	8.81%
Na 589.592†	13863.8	1.088	mg/L	0.0116	5.441	mg/L	0.0582	1.07%
Na 330.237†	13.5	0.4085	mg/L	0.12264	2.043	mg/L	0.6132	30.02%
Ni 231.604†	178.2	0.04323	mg/L	0.000951	0.2162	mg/L	0.00475	2.20%
Pb 220.353†	12002.8	1.508	mg/L	0.0113	7.541	mg/L	0.0566	0.75%
Sb 206.836†	20.2	0.00662	mg/L	0.003671	0.03310	mg/L	0.018357	55.46%
Se 196.026†	4.8	0.00317	mg/L	0.002373	0.01584	mg/L	0.011863	74.88%
Si 288.158†	1975.4	0.9198	mg/L	0.00959	4.599	mg/L	0.0480	1.04%
Sn 189.927†	-17.7	-0.00047	mg/L	0.000236	-0.00234	mg/L	0.001181	50.40%
Sr 421.552†	530139.7	0.5659	mg/L	0.00636	2.830	mg/L	0.0318	1.12%
Ti 334.903†	51153.7	2.453	mg/L	0.0291	12.27	mg/L	0.145	1.19%
Tl 190.801†	-0.5	0.00532	mg/L	0.000498	0.02658	mg/L	0.002491	9.37%
V 292.402†	14447.8	0.1075	mg/L	0.00061	0.5376	mg/L	0.00305	0.57%
Zn 206.200†	7634.2	1.883	mg/L	0.0323	9.416	mg/L	0.1613	1.71%

Sequence No.: 6
Sample ID: VR34 H SWC

Autosampler Location: 329
Date Collected: 11/16/2012 12:32:16 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 H SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2270056.9	100.6	%	0.54				0.53%
ScR 361.383	293595.3	102.7	%	3.23				3.14%
Ag 328.068†	-62.3	-0.00032	mg/L	0.000221	-0.00162	mg/L	0.001104	68.01%
Al 308.215†	85262.9	47.87	mg/L	1.485	239.4	mg/L	7.42	3.10%
As 188.979†	-45.6	0.04419	mg/L	0.003403	0.2210	mg/L	0.01702	7.70%
B 249.677†	96.4	0.01225	mg/L	0.000897	0.06125	mg/L	0.004487	7.32%
Ba 233.527†	3710.7	0.8085	mg/L	0.02683	4.043	mg/L	0.1342	3.32%
Be 313.042†	972.4	0.00141	mg/L	0.000095	0.00707	mg/L	0.000473	6.69%
Ca 317.933†	344712.2	24.27	mg/L	0.738	121.3	mg/L	3.69	3.04%
Cd 228.802†	894.7	0.02789	mg/L	0.000380	0.1395	mg/L	0.00190	1.36%
Co 228.616†	944.5	0.02125	mg/L	0.000673	0.1063	mg/L	0.00337	3.17%
Cr 267.716†	412.0	0.06684	mg/L	0.002160	0.3342	mg/L	0.01080	3.23%
Cu 324.752†	19824.5	0.07815	mg/L	0.000695	0.3908	mg/L	0.00348	0.89%
Fe 273.955†	75413.7	57.52	mg/L	1.572	287.6	mg/L	7.86	2.73%
K 766.490†	20745.0	10.41	mg/L	0.322	52.04	mg/L	1.611	3.10%
Mg 279.077†	21892.8	14.82	mg/L	0.449	74.08	mg/L	2.245	3.03%
Mn 257.610†	72424.9	2.002	mg/L	0.0584	10.01	mg/L	0.292	2.92%
Mo 202.031†	65.8	0.00301	mg/L	0.000183	0.01506	mg/L	0.000917	6.09%
Na 589.592†	7333.5	0.5756	mg/L	0.01870	2.878	mg/L	0.0935	3.25%
Na 330.237†	3.2	0.2703	mg/L	0.11805	1.351	mg/L	0.5902	43.67%
Ni 231.604†	196.2	0.04760	mg/L	0.001391	0.2380	mg/L	0.00695	2.92%
Pb 220.353†	7127.9	0.8999	mg/L	0.01660	4.500	mg/L	0.0830	1.84%
Sb 206.836†	22.9	0.00745	mg/L	0.000316	0.03723	mg/L	0.001580	4.24%
Se 196.026†	5.8	0.00381	mg/L	0.003181	0.01903	mg/L	0.015907	83.59%
Si 288.158†	2021.5	0.9411	mg/L	0.03383	4.706	mg/L	0.1692	3.59%
Sn 189.927†	-24.1	-0.00281	mg/L	0.001192	-0.01404	mg/L	0.005962	42.47%
Sr 421.552†	248516.3	0.2653	mg/L	0.00817	1.326	mg/L	0.0408	3.08%
Ti 334.903†	50832.2	2.438	mg/L	0.0706	12.19	mg/L	0.353	2.90%
Tl 190.801†	-1.5	0.00505	mg/L	0.000631	0.02525	mg/L	0.003157	12.50%
V 292.402†	12626.2	0.09362	mg/L	0.001531	0.4681	mg/L	0.00765	1.63%
Zn 206.200†	4858.2	1.198	mg/L	0.0396	5.992	mg/L	0.1982	3.31%

Sequence No.: 7
Sample ID: VR34 I SWC

Autosampler Location: 330
Date Collected: 11/16/2012 12:36:17 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2288974.6	101.4	%	0.38				0.38%
ScR 361.383	293934.8	102.8	%	1.41				1.37%
Ag 328.068†	20.4	0.00014	mg/L	0.000178	0.00072	mg/L	0.000892	123.09%
Al 308.215†	63337.1	35.56	mg/L	0.516	177.8	mg/L	2.58	1.45%
As 188.979†	-0.0	0.05636	mg/L	0.001541	0.2818	mg/L	0.00771	2.73%
B 249.677†	73.6	0.00932	mg/L	0.000143	0.04662	mg/L	0.000716	1.54%
Ba 233.527†	6341.4	1.387	mg/L	0.0235	6.936	mg/L	0.1174	1.69%
Be 313.042†	905.3	0.00132	mg/L	0.000054	0.00658	mg/L	0.000269	4.08%
Ca 317.933†	331108.2	23.31	mg/L	0.342	116.6	mg/L	1.71	1.47%
Cd 228.802†	1188.0	0.03692	mg/L	0.000237	0.1846	mg/L	0.00118	0.64%
Co 228.616†	1226.2	0.02990	mg/L	0.000155	0.1495	mg/L	0.00077	0.52%
Cr 267.716†	469.6	0.07595	mg/L	0.000820	0.3797	mg/L	0.00410	1.08%
Cu 324.752†	18320.7	0.07281	mg/L	0.000647	0.3641	mg/L	0.00324	0.89%
Fe 273.955†	85763.6	65.41	mg/L	1.093	327.1	mg/L	5.47	1.67%
K 766.490†	11688.5	5.864	mg/L	0.0853	29.32	mg/L	0.427	1.46%
Mg 279.077†	20811.5	14.08	mg/L	0.173	70.39	mg/L	0.864	1.23%
Mn 257.610†	287481.1	7.946	mg/L	0.1286	39.73	mg/L	0.643	1.62%
Mo 202.031†	114.2	0.00543	mg/L	0.000250	0.02717	mg/L	0.001249	4.60%
Na 589.592†	8196.1	0.6433	mg/L	0.01005	3.216	mg/L	0.0502	1.56%
Na 330.237†	9.4	0.2082	mg/L	0.19671	1.041	mg/L	0.9835	94.47%
Ni 231.604†	236.5	0.05740	mg/L	0.001401	0.2870	mg/L	0.00700	2.44%
Pb 220.353†	12959.4	1.625	mg/L	0.0048	8.127	mg/L	0.0242	0.30%
Sb 206.836†	25.9	0.00807	mg/L	0.000951	0.04037	mg/L	0.004753	11.77%
Se 196.026†	7.5	0.00493	mg/L	0.004835	0.02467	mg/L	0.024177	97.99%
Si 288.158†	1103.6	0.5146	mg/L	0.01070	2.573	mg/L	0.0535	2.08%
Sn 189.927†	-23.1	-0.00269	mg/L	0.000688	-0.01347	mg/L	0.003441	25.54%
Sr 421.552†	203974.0	0.2177	mg/L	0.00291	1.089	mg/L	0.0145	1.34%
Ti 334.903†	42102.3	2.019	mg/L	0.0305	10.10	mg/L	0.153	1.51%
Tl 190.801†	-9.7	0.00262	mg/L	0.002462	0.01311	mg/L	0.012312	93.93%
V 292.402†	13433.2	0.1007	mg/L	0.00075	0.5034	mg/L	0.00377	0.75%
Zn 206.200†	7124.1	1.757	mg/L	0.0297	8.787	mg/L	0.1487	1.69%

Sequence No.: 8
Sample ID: VR34 J SWC

Autosampler Location: 331
Date Collected: 11/16/2012 12:40:18 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 J SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2291452.4	101.5	%	0.60				0.59%
ScR 361.383	292207.9	102.2	%	2.20				2.15%
Ag 328.068†	29.8	0.00020	mg/L	0.000173	0.00101	mg/L	0.000865	85.62%
Al 308.215†	122001.2	68.50	mg/L	2.157	342.5	mg/L	10.79	3.15%
As 188.979†	-11.8	0.06246	mg/L	0.002501	0.3123	mg/L	0.01251	4.00%
B 249.677†	57.6	0.00727	mg/L	0.000788	0.03634	mg/L	0.003941	10.85%
Ba 233.527†	6099.4	1.330	mg/L	0.0251	6.651	mg/L	0.1253	1.88%
Be 313.042†	1382.6	0.00203	mg/L	0.000063	0.01013	mg/L	0.000313	3.09%
Ca 317.933†	283752.9	19.98	mg/L	0.595	99.89	mg/L	2.975	2.98%
Cd 228.802†	1344.6	0.04172	mg/L	0.000623	0.2086	mg/L	0.00311	1.49%
Co 228.616†	1600.4	0.03941	mg/L	0.000458	0.1971	mg/L	0.00229	1.16%
Cr 267.716†	532.6	0.08711	mg/L	0.001187	0.4356	mg/L	0.00594	1.36%
Cu 324.752†	29164.5	0.1154	mg/L	0.00069	0.5769	mg/L	0.00346	0.60%
Fe 273.955†	114608.4	87.41	mg/L	3.041	437.1	mg/L	15.20	3.48%
K 766.490†	15223.8	7.638	mg/L	0.2233	38.19	mg/L	1.116	2.92%
Mg 279.077†	24710.8	16.71	mg/L	0.546	83.55	mg/L	2.730	3.27%
Mn 257.610†	142185.4	3.930	mg/L	0.1351	19.65	mg/L	0.675	3.44%
Mo 202.031†	71.5	0.00334	mg/L	0.000067	0.01670	mg/L	0.000336	2.01%
Na 589.592†	9652.9	0.7576	mg/L	0.02350	3.788	mg/L	0.1175	3.10%
Na 330.237†	14.0	0.4651	mg/L	0.07466	2.325	mg/L	0.3733	16.05%
Ni 231.604†	327.7	0.07952	mg/L	0.001437	0.3976	mg/L	0.00718	1.81%
Pb 220.353†	13321.3	1.678	mg/L	0.0140	8.388	mg/L	0.0700	0.83%
Sb 206.836†	32.1	0.01006	mg/L	0.001184	0.05031	mg/L	0.005919	11.76%
Se 196.026†	15.8	0.01051	mg/L	0.006330	0.05254	mg/L	0.031650	60.24%
Si 288.158†	2784.0	1.296	mg/L	0.0210	6.478	mg/L	0.1050	1.62%
Sn 189.927†	-15.7	-0.00115	mg/L	0.001510	-0.00574	mg/L	0.007552	131.63%
Sr 421.552†	199481.4	0.2130	mg/L	0.00707	1.065	mg/L	0.0353	3.32%
Ti 334.903†	50922.2	2.442	mg/L	0.0784	12.21	mg/L	0.392	3.21%
Tl 190.801†	-15.6	0.00256	mg/L	0.002278	0.01280	mg/L	0.011388	88.96%
V 292.402†	15097.3	0.1118	mg/L	0.00059	0.5591	mg/L	0.00295	0.53%
Zn 206.200†	7132.2	1.759	mg/L	0.0339	8.797	mg/L	0.1695	1.93%

Sequence No.: 9
Sample ID: VR34 K SWC

Autosampler Location: 332
Date Collected: 11/16/2012 12:44:19 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2309748.8	102.3	%	1.53				1.49%
ScR 361.383	294996.2	103.2	%	1.72				1.67%
Ag 328.068†	64.4	0.00040	mg/L	0.000132	0.00202	mg/L	0.000661	32.78%
Al 308.215†	113813.1	63.90	mg/L	1.053	319.5	mg/L	5.26	1.65%
As 188.979†	54.4	0.09574	mg/L	0.001976	0.4787	mg/L	0.00988	2.06%
B 249.677†	45.3	0.00568	mg/L	0.000578	0.02840	mg/L	0.002892	10.18%
Ba 233.527†	6170.5	1.344	mg/L	0.0174	6.719	mg/L	0.0869	1.29%
Be 313.042†	1491.8	0.00219	mg/L	0.000044	0.01094	mg/L	0.000218	2.00%
Ca 317.933†	268883.1	18.93	mg/L	0.316	94.65	mg/L	1.582	1.67%
Cd 228.802†	1468.8	0.04531	mg/L	0.000875	0.2265	mg/L	0.00438	1.93%
Co 228.616†	1845.2	0.04630	mg/L	0.000517	0.2315	mg/L	0.00258	1.12%
Cr 267.716†	990.4	0.1605	mg/L	0.00185	0.8027	mg/L	0.00926	1.15%
Cu 324.752†	33656.3	0.1332	mg/L	0.00113	0.6658	mg/L	0.00567	0.85%
Fe 273.955†	131109.4	100.00	mg/L	1.968	500.0	mg/L	9.84	1.97%
K 766.490†	17936.1	8.999	mg/L	0.1241	44.99	mg/L	0.620	1.38%
Mg 279.077†	36157.4	24.47	mg/L	0.430	122.3	mg/L	2.15	1.76%
Mn 257.610†	182635.9	5.049	mg/L	0.0941	25.24	mg/L	0.470	1.86%
Mo 202.031†	84.4	0.00399	mg/L	0.000498	0.01997	mg/L	0.002490	12.47%
Na 589.592†	7073.5	0.5552	mg/L	0.01046	2.776	mg/L	0.0523	1.88%
Na 330.237†	4.9	0.1338	mg/L	0.08275	0.6688	mg/L	0.41374	61.87%
Ni 231.604†	408.7	0.09918	mg/L	0.000712	0.4959	mg/L	0.00356	0.72%
Pb 220.353†	14254.9	1.793	mg/L	0.0168	8.964	mg/L	0.0842	0.94%
Sb 206.836†	34.1	0.00964	mg/L	0.001280	0.04820	mg/L	0.006400	13.28%
Se 196.026†	14.5	0.00966	mg/L	0.000331	0.04828	mg/L	0.001654	3.43%
Si 288.158†	1581.2	0.7378	mg/L	0.01258	3.689	mg/L	0.0629	1.70%
Sn 189.927†	-16.7	-0.00155	mg/L	0.000187	-0.00775	mg/L	0.000935	12.06%
Sr 421.552†	175140.1	0.1870	mg/L	0.00282	0.9348	mg/L	0.01410	1.51%
Ti 334.903†	49684.7	2.383	mg/L	0.0416	11.92	mg/L	0.208	1.75%
Tl 190.801†	-22.4	0.00113	mg/L	0.000607	0.00563	mg/L	0.003037	53.94%
V 292.402†	17463.0	0.1300	mg/L	0.00083	0.6498	mg/L	0.00417	0.64%
Zn 206.200†	7139.5	1.761	mg/L	0.0288	8.806	mg/L	0.1442	1.64%

Sequence No.: 10
Sample ID: VR34 L SWC

Autosampler Location: 333
Date Collected: 11/16/2012 12:48:20 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 L SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2282220.5	101.1	%	0.92				0.91%
ScR 361.383	289610.8	101.3	%	0.55				0.54%
Ag 328.068†	-86.4	-0.00047	mg/L	0.000156	-0.00235	mg/L	0.000781	33.19%
Al 308.215†	43558.6	24.46	mg/L	0.138	122.3	mg/L	0.69	0.57%
As 188.979†	-23.6	0.02355	mg/L	0.001196	0.1177	mg/L	0.00598	5.08%
B 249.677†	6.3	0.00078	mg/L	0.000441	0.00388	mg/L	0.002205	56.84%
Ba 233.527†	835.4	0.1783	mg/L	0.00139	0.8916	mg/L	0.00696	0.78%
Be 313.042†	598.9	0.00087	mg/L	0.000012	0.00436	mg/L	0.000062	1.43%
Ca 317.933†	91328.8	6.430	mg/L	0.0408	32.15	mg/L	0.204	0.64%
Cd 228.802†	217.7	0.00664	mg/L	0.000047	0.03319	mg/L	0.000237	0.71%
Co 228.616†	488.0	0.01089	mg/L	0.000134	0.05446	mg/L	0.000672	1.23%
Cr 267.716†	241.8	0.03949	mg/L	0.000268	0.1974	mg/L	0.00134	0.68%
Cu 324.752†	7769.4	0.03113	mg/L	0.000106	0.1556	mg/L	0.00053	0.34%
Fe 273.955†	46748.3	35.65	mg/L	0.089	178.3	mg/L	0.44	0.25%
K 766.490†	4855.8	2.436	mg/L	0.0424	12.18	mg/L	0.212	1.74%
Mg 279.077†	11818.3	7.995	mg/L	0.0583	39.98	mg/L	0.292	0.73%
Mn 257.610†	23625.1	0.6532	mg/L	0.00311	3.266	mg/L	0.0156	0.48%
Mo 202.031†	18.7	0.00086	mg/L	0.000144	0.00430	mg/L	0.000720	16.75%
Na 589.592†	3246.8	0.2548	mg/L	0.00166	1.274	mg/L	0.0083	0.65%
Na 330.237†	-10.6	-0.1991	mg/L	0.12922	-0.9956	mg/L	0.64610	64.90%
Ni 231.604†	114.2	0.02771	mg/L	0.000665	0.1386	mg/L	0.00333	2.40%
Pb 220.353†	2669.1	0.3380	mg/L	0.00284	1.690	mg/L	0.0142	0.84%
Sb 206.836†	11.0	0.00357	mg/L	0.001534	0.01785	mg/L	0.007669	42.96%
Se 196.026†	8.3	0.00550	mg/L	0.002813	0.02750	mg/L	0.014063	51.15%
Si 288.158†	2652.5	1.233	mg/L	0.0125	6.167	mg/L	0.0624	1.01%
Sn 189.927†	-12.3	-0.00217	mg/L	0.000909	-0.01087	mg/L	0.004544	41.82%
Sr 421.552†	78537.1	0.08384	mg/L	0.000373	0.4192	mg/L	0.00186	0.44%
Ti 334.903†	26563.7	1.274	mg/L	0.0057	6.371	mg/L	0.0286	0.45%
Tl 190.801†	-4.8	0.00163	mg/L	0.000417	0.00813	mg/L	0.002085	25.64%
V 292.402†	8416.5	0.06257	mg/L	0.000232	0.3128	mg/L	0.00116	0.37%
Zn 206.200†	1461.1	0.3604	mg/L	0.00236	1.802	mg/L	0.0118	0.66%

Sequence No.: 11
Sample ID: CV 7
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/16/2012 12:52:20 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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2271379.0	100.6	%	0.65				0.65%
ScR 361.383	283879.8	99.28	%	0.906				0.91%
Ag 328.068†	177762.0	1.006	mg/L	0.0075	1.006	mg/L	0.0075	0.75%
Al 308.215†	3686.3	2.036	mg/L	0.0145	2.036	mg/L	0.0145	0.71%
As 188.979†	3666.4	1.966	mg/L	0.0084	1.966	mg/L	0.0084	0.43%
B 249.677†	7593.7	0.9682	mg/L	0.00319	0.9682	mg/L	0.00319	0.33%
Ba 233.527†	4709.9	1.038	mg/L	0.0056	1.038	mg/L	0.0056	0.54%
Be 313.042†	634401.2	0.9537	mg/L	0.00397	0.9537	mg/L	0.00397	0.42%
Ca 317.933†	27834.2	1.960	mg/L	0.0130	1.960	mg/L	0.0130	0.66%
Cd 228.802†	32952.3	1.028	mg/L	0.0061	1.028	mg/L	0.0061	0.59%
Co 228.616†	35719.9	1.011	mg/L	0.0073	1.011	mg/L	0.0073	0.72%
Cr 267.716†	6442.4	1.037	mg/L	0.0086	1.037	mg/L	0.0086	0.83%
Cu 324.752†	258063.9	0.9920	mg/L	0.00265	0.9920	mg/L	0.00265	0.27%
Fe 273.955†	2725.4	2.072	mg/L	0.0195	2.072	mg/L	0.0195	0.94%
K 766.490†	39862.4	20.00	mg/L	0.111	20.00	mg/L	0.111	0.55%
Mg 279.077†	3000.3	2.042	mg/L	0.0175	2.042	mg/L	0.0175	0.86%
Mn 257.610†	36138.2	0.9992	mg/L	0.00687	0.9992	mg/L	0.00687	0.69%
Mo 202.031†	20005.7	0.9969	mg/L	0.00663	0.9969	mg/L	0.00663	0.67%
Na 589.592†	626922.5	49.20	mg/L	0.211	49.20	mg/L	0.211	0.43%
Na 330.237†	1503.0	52.21	mg/L	0.258	52.21	mg/L	0.258	0.49%
Ni 231.604†	4039.9	0.9806	mg/L	0.00545	0.9806	mg/L	0.00545	0.56%
Pb 220.353†	15527.9	1.942	mg/L	0.0126	1.942	mg/L	0.0126	0.65%
Sb 206.836†	6929.9	2.118	mg/L	0.0123	2.118	mg/L	0.0123	0.58%
Se 196.026†	2868.5	1.926	mg/L	0.0076	1.926	mg/L	0.0076	0.40%
Si 288.158†	4506.9	2.093	mg/L	0.0132	2.093	mg/L	0.0132	0.63%
Sn 189.927†	3923.3	1.008	mg/L	0.0049	1.008	mg/L	0.0049	0.48%
Sr 421.552†	899750.8	0.9605	mg/L	0.00554	0.9605	mg/L	0.00554	0.58%
Ti 334.903†	21333.5	1.022	mg/L	0.0037	1.022	mg/L	0.0037	0.36%
Tl 190.801†	4986.6	1.942	mg/L	0.0113	1.942	mg/L	0.0113	0.58%
V 292.402†	133740.9	1.026	mg/L	0.0087	1.026	mg/L	0.0087	0.85%
Zn 206.200†	4088.0	1.008	mg/L	0.0059	1.008	mg/L	0.0059	0.58%

Sequence No.: 12
Sample ID: CB 7

Autosampler Location: 1
Date Collected: 11/16/2012 12:57:27 PM
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	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2288125.4	101.4	%	0.81				0.80%
ScR 361.383	290668.7	101.7	%	0.61				0.60%
Ag 328.068†	43.1	0.00024	mg/L	0.000211	0.00024	mg/L	0.000211	86.31%
Al 308.215†	28.6	0.01607	mg/L	0.012539	0.01607	mg/L	0.012539	78.05%
As 188.979†	0.4	0.00026	mg/L	0.000533	0.00026	mg/L	0.000533	207.15%
B 249.677†	10.4	0.00133	mg/L	0.000523	0.00133	mg/L	0.000523	39.33%
Ba 233.527†	-0.7	-0.00015	mg/L	0.000379	-0.00015	mg/L	0.000379	249.09%
Be 313.042†	166.7	0.00025	mg/L	0.000057	0.00025	mg/L	0.000057	22.54%
Ca 317.933†	70.2	0.00494	mg/L	0.001525	0.00494	mg/L	0.001525	30.87%
Cd 228.802†	-6.2	-0.00020	mg/L	0.000104	-0.00020	mg/L	0.000104	52.34%
Co 228.616†	-11.1	-0.00032	mg/L	0.000187	-0.00032	mg/L	0.000187	58.88%
Cr 267.716†	-9.6	-0.00154	mg/L	0.000328	-0.00154	mg/L	0.000328	21.25%
Cu 324.752†	37.6	0.00014	mg/L	0.000141	0.00014	mg/L	0.000141	97.38%
Fe 273.955†	18.1	0.01382	mg/L	0.003927	0.01382	mg/L	0.003927	28.41%
K 766.490†	-9.9	-0.00495	mg/L	0.006149	-0.00495	mg/L	0.006149	124.14%
Mg 279.077†	1.8	0.00120	mg/L	0.003141	0.00120	mg/L	0.003141	260.68%
Mn 257.610†	14.6	0.00040	mg/L	0.000180	0.00040	mg/L	0.000180	44.81%
Mo 202.031†	13.2	0.00066	mg/L	0.000139	0.00066	mg/L	0.000139	21.16%
Na 589.592†	119.4	0.00937	mg/L	0.003559	0.00937	mg/L	0.003559	37.99%
Na 330.237†	-5.8	-0.2026	mg/L	0.29193	-0.2026	mg/L	0.29193	144.10%
Ni 231.604†	-4.0	-0.00097	mg/L	0.000672	-0.00097	mg/L	0.000672	69.32%
Pb 220.353†	4.4	0.00055	mg/L	0.001626	0.00055	mg/L	0.001626	298.23%
Sb 206.836†	5.8	0.00180	mg/L	0.002170	0.00180	mg/L	0.002170	120.88%
Se 196.026†	4.1	0.00278	mg/L	0.002003	0.00278	mg/L	0.002003	72.00%
Si 288.158†	5.5	0.00258	mg/L	0.003362	0.00258	mg/L	0.003362	130.55%
Sn 189.927†	-0.7	-0.00018	mg/L	0.000359	-0.00018	mg/L	0.000359	198.35%
Sr 421.552†	224.5	0.00024	mg/L	0.000034	0.00024	mg/L	0.000034	14.39%
Ti 334.903†	27.6	0.00132	mg/L	0.000364	0.00132	mg/L	0.000364	27.52%
Tl 190.801†	3.3	0.00131	mg/L	0.002660	0.00131	mg/L	0.002660	202.76%
V 292.402†	-18.6	-0.00015	mg/L	0.000120	-0.00015	mg/L	0.000120	80.17%
Zn 206.200†	-0.1	-0.00004	mg/L	0.000875	-0.00004	mg/L	0.000875	>999.9%

Analysis Begun

Start Time: 11/16/2012 1:29:48 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1116.sif
Batch ID:
Results Data Set: I2121116
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: CV8
Autosampler Location: 7
Date Collected: 11/16/2012 1:29:49 PM
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	2250323.7	99.70	%	0.640				0.64%
ScR 361.383	286872.2	100.3	%	0.98				0.98%
Ag 328.068†	178929.9	1.013	mg/L	0.0050	1.013	mg/L	0.0050	0.49%
Al 308.215†	3627.6	2.002	mg/L	0.0139	2.002	mg/L	0.0139	0.69%
As 188.979†	3690.2	1.978	mg/L	0.0046	1.978	mg/L	0.0046	0.23%
B 249.677†	7524.2	0.9593	mg/L	0.00606	0.9593	mg/L	0.00606	0.63%
Ba 233.527†	4642.5	1.023	mg/L	0.0099	1.023	mg/L	0.0099	0.97%
Be 313.042†	632185.6	0.9504	mg/L	0.00674	0.9504	mg/L	0.00674	0.71%
Ca 317.933†	27505.4	1.936	mg/L	0.0197	1.936	mg/L	0.0197	1.02%
Cd 228.802†	33305.7	1.039	mg/L	0.0037	1.039	mg/L	0.0037	0.36%
Co 228.616†	35983.3	1.018	mg/L	0.0022	1.018	mg/L	0.0022	0.22%
Cr 267.716†	6385.1	1.027	mg/L	0.0054	1.027	mg/L	0.0054	0.52%
Cu 324.752†	268995.9	1.034	mg/L	0.0035	1.034	mg/L	0.0035	0.34%
Fe 273.955†	2692.9	2.047	mg/L	0.0083	2.047	mg/L	0.0083	0.41%
K 766.490†	39440.5	19.79	mg/L	0.211	19.79	mg/L	0.211	1.07%
Mg 279.077†	2964.8	2.018	mg/L	0.0104	2.018	mg/L	0.0104	0.52%
Mn 257.610†	35892.9	0.9925	mg/L	0.00745	0.9925	mg/L	0.00745	0.75%
Mo 202.031†	20199.4	1.007	mg/L	0.0005	1.007	mg/L	0.0005	0.05%
Na 589.592†	620351.5	48.69	mg/L	0.516	48.69	mg/L	0.516	1.06%
Na 330.237†	1494.4	51.91	mg/L	0.128	51.91	mg/L	0.128	0.25%
Ni 231.604†	3995.5	0.9698	mg/L	0.00503	0.9698	mg/L	0.00503	0.52%
Pb 220.353†	15686.1	1.961	mg/L	0.0049	1.961	mg/L	0.0049	0.25%
Sb 206.836†	6975.8	2.133	mg/L	0.0102	2.133	mg/L	0.0102	0.48%
Se 196.026†	2895.2	1.943	mg/L	0.0062	1.943	mg/L	0.0062	0.32%
Si 288.158†	4485.2	2.083	mg/L	0.0194	2.083	mg/L	0.0194	0.93%
Sn 189.927†	3971.3	1.020	mg/L	0.0038	1.020	mg/L	0.0038	0.37%
Sr 421.552†	891792.3	0.9520	mg/L	0.00878	0.9520	mg/L	0.00878	0.92%
Ti 334.903†	21200.3	1.016	mg/L	0.0100	1.016	mg/L	0.0100	0.98%
Tl 190.801†	5009.5	1.951	mg/L	0.0031	1.951	mg/L	0.0031	0.16%
V 292.402†	134916.3	1.035	mg/L	0.0039	1.035	mg/L	0.0039	0.38%
Zn 206.200†	4035.8	0.9953	mg/L	0.00587	0.9953	mg/L	0.00587	0.59%

Sequence No.: 2
Sample ID: CB 8

Autosampler Location: 1
Date Collected: 11/16/2012 1:34:55 PM
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	2270851.9	100.6	%	0.79				0.78%
ScR 361.383	291826.6	102.1	%	1.50				1.47%
Ag 328.068†	95.3	0.00054	mg/L	0.000410	0.00054	mg/L	0.000410	75.94%
Al 308.215†	27.0	0.01515	mg/L	0.013052	0.01515	mg/L	0.013052	86.15%
As 188.979†	0.0	0.00005	mg/L	0.000645	0.00005	mg/L	0.000645	>999.9%
B 249.677†	9.5	0.00121	mg/L	0.000374	0.00121	mg/L	0.000374	30.85%
Ba 233.527†	-5.3	-0.00118	mg/L	0.000737	-0.00118	mg/L	0.000737	62.57%
Be 313.042†	203.7	0.00031	mg/L	0.000032	0.00031	mg/L	0.000032	10.36%
Ca 317.933†	11.4	0.00080	mg/L	0.000441	0.00080	mg/L	0.000441	54.92%
Cd 228.802†	1.1	0.00003	mg/L	0.000096	0.00003	mg/L	0.000096	287.77%
Co 228.616†	-7.5	-0.00021	mg/L	0.000113	-0.00021	mg/L	0.000113	52.84%
Cr 267.716†	-4.6	-0.00074	mg/L	0.000589	-0.00074	mg/L	0.000589	79.23%
Cu 324.752†	32.7	0.00013	mg/L	0.000083	0.00013	mg/L	0.000083	66.01%
Fe 273.955†	2.8	0.00211	mg/L	0.001434	0.00211	mg/L	0.001434	68.14%
K 766.490†	-1.2	-0.00059	mg/L	0.010475	-0.00059	mg/L	0.010475	>999.9%
Mg 279.077†	2.1	0.00140	mg/L	0.008105	0.00140	mg/L	0.008105	580.35%
Mn 257.610†	-4.6	-0.00013	mg/L	0.000103	-0.00013	mg/L	0.000103	80.87%
Mo 202.031†	19.0	0.00095	mg/L	0.000164	0.00095	mg/L	0.000164	17.30%
Na 589.592†	173.1	0.01359	mg/L	0.004605	0.01359	mg/L	0.004605	33.89%
Na 330.237†	-10.7	-0.3717	mg/L	0.28520	-0.3717	mg/L	0.28520	76.73%
Ni 231.604†	-3.8	-0.00092	mg/L	0.000827	-0.00092	mg/L	0.000827	90.27%
Pb 220.353†	8.7	0.00108	mg/L	0.000513	0.00108	mg/L	0.000513	47.29%
Sb 206.836†	12.6	0.00385	mg/L	0.001067	0.00385	mg/L	0.001067	27.69%
Se 196.026†	3.1	0.00205	mg/L	0.002185	0.00205	mg/L	0.002185	106.32%
Si 288.158†	6.4	0.00298	mg/L	0.003775	0.00298	mg/L	0.003775	126.72%
Sn 189.927†	-0.4	-0.00009	mg/L	0.000301	-0.00009	mg/L	0.000301	330.69%
Sr 421.552†	251.3	0.00027	mg/L	0.000027	0.00027	mg/L	0.000027	9.92%
Ti 334.903†	22.1	0.00106	mg/L	0.000464	0.00106	mg/L	0.000464	43.82%
Tl 190.801†	2.6	0.00102	mg/L	0.000837	0.00102	mg/L	0.000837	81.69%
V 292.402†	-16.1	-0.00013	mg/L	0.000099	-0.00013	mg/L	0.000099	78.47%
Zn 206.200†	-0.9	-0.00022	mg/L	0.000593	-0.00022	mg/L	0.000593	266.23%

Sequence No.: 3
Sample ID: VR34 MB1 SWC

Autosampler Location: 334
Date Collected: 11/16/2012 1:39:11 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR34 MB1 SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2301258.3	102.0	%	0.50				0.49%
ScR 361.383	293136.9	102.5	%	1.94				1.90%
Ag 328.068†	31.2	0.00018	mg/L	0.000268	0.00035	mg/L	0.000536	152.08%
Al 308.215†	24.2	0.01357	mg/L	0.003529	0.02713	mg/L	0.007058	26.01%
As 188.979†	-0.6	-0.00032	mg/L	0.001580	-0.00063	mg/L	0.003161	497.93%
B 249.677†	1.0	0.00013	mg/L	0.000562	0.00025	mg/L	0.001123	445.81%
Ba 233.527†	-6.8	-0.00149	mg/L	0.000651	-0.00298	mg/L	0.001302	43.67%
Be 313.042†	12.1	0.00002	mg/L	0.000039	0.00004	mg/L	0.000079	215.27%
Ca 317.933†	168.9	0.01189	mg/L	0.000906	0.02378	mg/L	0.001811	7.62%
Cd 228.802†	-14.0	-0.00044	mg/L	0.000011	-0.00088	mg/L	0.000021	2.43%
Co 228.616†	-11.8	-0.00034	mg/L	0.000141	-0.00067	mg/L	0.000281	41.68%
Cr 267.716†	-6.9	-0.00112	mg/L	0.001118	-0.00224	mg/L	0.002237	99.99%
Cu 324.752†	50.9	0.00020	mg/L	0.000094	0.00039	mg/L	0.000188	48.11%
Fe 273.955†	6.7	0.00515	mg/L	0.001745	0.01029	mg/L	0.003490	33.91%
K 766.490†	-39.3	-0.01974	mg/L	0.001882	-0.03948	mg/L	0.003764	9.53%
Mg 279.077†	2.8	0.00189	mg/L	0.002039	0.00378	mg/L	0.004079	107.93%
Mn 257.610†	4.6	0.00013	mg/L	0.000063	0.00025	mg/L	0.000126	49.90%
Mo 202.031†	5.0	0.00025	mg/L	0.000222	0.00049	mg/L	0.000445	90.18%
Na 589.592†	37.5	0.00294	mg/L	0.003772	0.00589	mg/L	0.007543	128.08%
Na 330.237†	-6.7	-0.2333	mg/L	0.59278	-0.4666	mg/L	1.18556	254.11%
Ni 231.604†	-3.8	-0.00091	mg/L	0.001175	-0.00182	mg/L	0.002351	128.84%
Pb 220.353†	-3.9	-0.00049	mg/L	0.001032	-0.00098	mg/L	0.002065	211.06%
Sb 206.836†	3.4	0.00106	mg/L	0.000661	0.00212	mg/L	0.001322	62.41%
Se 196.026†	6.1	0.00412	mg/L	0.003205	0.00825	mg/L	0.006410	77.71%
Si 288.158†	-0.1	-0.00003	mg/L	0.001033	-0.00006	mg/L	0.002066	>999.9%
Sn 189.927†	-1.2	-0.00030	mg/L	0.000650	-0.00060	mg/L	0.001300	216.66%
Sr 421.552†	51.9	0.00006	mg/L	0.000021	0.00011	mg/L	0.000043	38.36%
Ti 334.903†	19.5	0.00094	mg/L	0.000492	0.00187	mg/L	0.000984	52.52%
Tl 190.801†	2.7	0.00106	mg/L	0.001910	0.00211	mg/L	0.003820	180.70%
V 292.402†	-42.2	-0.00033	mg/L	0.000093	-0.00065	mg/L	0.000187	28.53%
Zn 206.200†	6.8	0.00167	mg/L	0.000109	0.00334	mg/L	0.000219	6.55%

Sequence No.: 4
Sample ID: VR34 B SWC

Autosampler Location: 335
Date Collected: 11/16/2012 1:43:28 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 B SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2254872.9	99.90	%	2.121				2.12%
ScR 361.383	290707.9	101.7	%	0.95				0.94%
Ag 328.068†	-74.1	-0.00037	mg/L	0.000025	-0.00186	mg/L	0.000125	6.72%
Al 308.215†	135375.3	76.01	mg/L	0.697	380.0	mg/L	3.48	0.92%
As 188.979†	-59.6	0.05882	mg/L	0.002598	0.2941	mg/L	0.01299	4.42%
B 249.677†	82.3	0.01039	mg/L	0.000514	0.05196	mg/L	0.002571	4.95%
Ba 233.527†	7133.7	1.557	mg/L	0.0093	7.786	mg/L	0.0466	0.60%
Be 313.042†	1624.0	0.00237	mg/L	0.000033	0.01185	mg/L	0.000164	1.39%
Ca 317.933†	408373.5	28.75	mg/L	0.293	143.8	mg/L	1.46	1.02%
Cd 228.802†	758.8	0.02339	mg/L	0.000375	0.1170	mg/L	0.00187	1.60%
Co 228.616†	1853.1	0.04497	mg/L	0.000599	0.2248	mg/L	0.00299	1.33%
Cr 267.716†	1621.9	0.2612	mg/L	0.00169	1.306	mg/L	0.0085	0.65%
Cu 324.752†	26074.5	0.1035	mg/L	0.00168	0.5173	mg/L	0.00842	1.63%
Fe 273.955†	122189.8	93.19	mg/L	1.201	466.0	mg/L	6.00	1.29%
K 766.490†	15616.2	7.835	mg/L	0.0864	39.17	mg/L	0.432	1.10%
Mg 279.077†	47454.1	32.13	mg/L	0.318	160.7	mg/L	1.59	0.99%
Mn 257.610†	175697.3	4.857	mg/L	0.0480	24.28	mg/L	0.240	0.99%
Mo 202.031†	65.9	0.00296	mg/L	0.000269	0.01480	mg/L	0.001343	9.08%
Na 589.592†	7914.8	0.6212	mg/L	0.00398	3.106	mg/L	0.0199	0.64%
Na 330.237†	-5.4	0.2016	mg/L	0.26383	1.008	mg/L	1.3191	130.85%
Ni 231.604†	564.0	0.1368	mg/L	0.00039	0.6842	mg/L	0.00195	0.28%
Pb 220.353†	8718.2	1.104	mg/L	0.0154	5.521	mg/L	0.0768	1.39%
Sb 206.836†	28.5	0.00692	mg/L	0.001628	0.03461	mg/L	0.008141	23.52%
Se 196.026†	10.7	0.00708	mg/L	0.004133	0.03542	mg/L	0.020665	58.34%
Si 288.158†	2489.7	1.161	mg/L	0.0195	5.804	mg/L	0.0977	1.68%
Sn 189.927†	-32.4	-0.00426	mg/L	0.000317	-0.02128	mg/L	0.001584	7.44%
Sr 421.552†	263831.2	0.2816	mg/L	0.00253	1.408	mg/L	0.0127	0.90%
Ti 334.903†	67274.0	3.227	mg/L	0.0270	16.13	mg/L	0.135	0.84%
Tl 190.801†	-16.7	0.00248	mg/L	0.001744	0.01239	mg/L	0.008721	70.38%
V 292.402†	21302.1	0.1594	mg/L	0.00264	0.7972	mg/L	0.01322	1.66%
Zn 206.200†	4264.1	1.052	mg/L	0.0080	5.259	mg/L	0.0402	0.77%

Sequence No.: 5
Sample ID: VR34 C SWC

Autosampler Location: 336
Date Collected: 11/16/2012 1:47:29 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 C SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2265023.8	100.3	%	0.96				0.96%
ScR 361.383	287137.0	100.4	%	2.07				2.06%
Ag 328.068†	-95.5	-0.00051	mg/L	0.000186	-0.00256	mg/L	0.000932	36.40%
Al 308.215†	103719.0	58.23	mg/L	1.290	291.2	mg/L	6.45	2.21%
As 188.979†	-10.0	0.06078	mg/L	0.001037	0.3039	mg/L	0.00518	1.71%
B 249.677†	65.6	0.00831	mg/L	0.001523	0.04153	mg/L	0.007615	18.33%
Ba 233.527†	3532.0	0.7679	mg/L	0.00911	3.840	mg/L	0.0456	1.19%
Be 313.042†	1374.3	0.00202	mg/L	0.000061	0.01009	mg/L	0.000304	3.01%
Ca 317.933†	290441.7	20.45	mg/L	0.499	102.2	mg/L	2.50	2.44%
Cd 228.802†	561.9	0.01720	mg/L	0.000576	0.08602	mg/L	0.002878	3.35%
Co 228.616†	1126.6	0.02649	mg/L	0.000794	0.1324	mg/L	0.00397	3.00%
Cr 267.716†	401.4	0.06549	mg/L	0.001016	0.3275	mg/L	0.00508	1.55%
Cu 324.752†	19581.0	0.07757	mg/L	0.002316	0.3879	mg/L	0.01158	2.99%
Fe 273.955†	85210.1	64.99	mg/L	1.748	324.9	mg/L	8.74	2.69%
K 766.490†	11372.7	5.706	mg/L	0.1368	28.53	mg/L	0.684	2.40%
Mg 279.077†	20509.6	13.87	mg/L	0.309	69.37	mg/L	1.546	2.23%
Mn 257.610†	93664.3	2.589	mg/L	0.0642	12.95	mg/L	0.321	2.48%
Mo 202.031†	43.7	0.00195	mg/L	0.000469	0.00977	mg/L	0.002347	24.02%
Na 589.592†	8845.7	0.6943	mg/L	0.01632	3.471	mg/L	0.0816	2.35%
Na 330.237†	-0.0	0.2485	mg/L	0.10897	1.242	mg/L	0.5448	43.85%
Ni 231.604†	251.0	0.06091	mg/L	0.000828	0.3046	mg/L	0.00414	1.36%
Pb 220.353†	4519.6	0.5761	mg/L	0.01652	2.881	mg/L	0.0826	2.87%
Sb 206.836†	12.6	0.00428	mg/L	0.001301	0.02138	mg/L	0.006504	30.41%
Se 196.026†	12.9	0.00861	mg/L	0.000467	0.04307	mg/L	0.002336	5.43%
Si 288.158†	1888.7	0.8793	mg/L	0.01774	4.396	mg/L	0.0887	2.02%
Sn 189.927†	-25.6	-0.00368	mg/L	0.000959	-0.01839	mg/L	0.004793	26.07%
Sr 421.552†	241094.6	0.2574	mg/L	0.00594	1.287	mg/L	0.0297	2.31%
Ti 334.903†	49038.8	2.352	mg/L	0.0511	11.76	mg/L	0.256	2.17%
Tl 190.801†	-5.0	0.00443	mg/L	0.001681	0.02217	mg/L	0.008406	37.92%
V 292.402†	12992.4	0.09628	mg/L	0.002919	0.4814	mg/L	0.01460	3.03%
Zn 206.200†	3523.6	0.8692	mg/L	0.01024	4.346	mg/L	0.0512	1.18%

Sequence No.: 6
Sample ID: VR34 D SWC

Autosampler Location: 337
Date Collected: 11/16/2012 1:51:30 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 D SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2284629.6	101.2	%	0.91				0.90%
ScR 361.383	294142.0	102.9	%	0.57				0.55%
Ag 328.068†	22.8	0.00017	mg/L	0.000033	0.00083	mg/L	0.000163	19.55%
Al 308.215†	107595.8	60.41	mg/L	0.163	302.0	mg/L	0.82	0.27%
As 188.979†	-21.3	0.07198	mg/L	0.003302	0.3599	mg/L	0.01651	4.59%
B 249.677†	89.4	0.01132	mg/L	0.000746	0.05658	mg/L	0.003728	6.59%
Ba 233.527†	3833.3	0.8302	mg/L	0.00460	4.151	mg/L	0.0230	0.55%
Be 313.042†	1394.4	0.00203	mg/L	0.000012	0.01017	mg/L	0.000061	0.60%
Ca 317.933†	332365.6	23.40	mg/L	0.056	117.0	mg/L	0.28	0.24%
Cd 228.802†	1059.5	0.03274	mg/L	0.000258	0.1637	mg/L	0.00129	0.79%
Co 228.616†	1637.1	0.03945	mg/L	0.000182	0.1973	mg/L	0.00091	0.46%
Cr 267.716†	796.5	0.1292	mg/L	0.00046	0.6459	mg/L	0.00230	0.36%
Cu 324.752†	23393.3	0.09315	mg/L	0.000668	0.4658	mg/L	0.00334	0.72%
Fe 273.955†	118492.3	90.37	mg/L	0.325	451.9	mg/L	1.62	0.36%
K 766.490†	20052.1	10.06	mg/L	0.073	50.30	mg/L	0.366	0.73%
Mg 279.077†	34370.9	23.26	mg/L	0.086	116.3	mg/L	0.43	0.37%
Mn 257.610†	119094.1	3.292	mg/L	0.0092	16.46	mg/L	0.046	0.28%
Mo 202.031†	59.7	0.00271	mg/L	0.000442	0.01356	mg/L	0.002211	16.30%
Na 589.592†	8462.4	0.6642	mg/L	0.00379	3.321	mg/L	0.0189	0.57%
Na 330.237†	-6.3	-0.02868	mg/L	0.052591	-0.1434	mg/L	0.26296	183.35%
Ni 231.604†	392.5	0.09523	mg/L	0.002472	0.4762	mg/L	0.01236	2.60%
Pb 220.353†	11750.1	1.479	mg/L	0.0118	7.397	mg/L	0.0589	0.80%
Sb 206.836†	29.9	0.00906	mg/L	0.000703	0.04529	mg/L	0.003513	7.76%
Se 196.026†	11.0	0.00726	mg/L	0.001403	0.03631	mg/L	0.007017	19.32%
Si 288.158†	1543.5	0.7201	mg/L	0.00616	3.600	mg/L	0.0308	0.86%
Sn 189.927†	-15.1	-0.00050	mg/L	0.000410	-0.00248	mg/L	0.002051	82.54%
Sr 421.552†	252128.4	0.2692	mg/L	0.00091	1.346	mg/L	0.0045	0.34%
Ti 334.903†	61716.9	2.960	mg/L	0.0090	14.80	mg/L	0.045	0.30%
Tl 190.801†	-7.8	0.00587	mg/L	0.001559	0.02935	mg/L	0.007795	26.56%
V 292.402†	17263.5	0.1280	mg/L	0.00109	0.6402	mg/L	0.00545	0.85%
Zn 206.200†	5962.1	1.471	mg/L	0.0060	7.354	mg/L	0.0299	0.41%

Sequence No.: 7
Sample ID: VR34 A-L SWC

Autosampler Location: 338
Date Collected: 11/16/2012 1:55:31 PM
Data Type: Original

Dilution: 25.000000X

Nebulizer Parameters: VR34 A-L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 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	2334453.9	103.4	%	1.13				1.09%
ScR 361.383	299094.2	104.6	%	0.76				0.72%
Ag 328.068†	48.3	0.00028	mg/L	0.000048	0.00697	mg/L	0.001195	17.13%
Al 308.215†	18274.0	10.26	mg/L	0.211	256.5	mg/L	5.27	2.05%
As 188.979†	1.6	0.01359	mg/L	0.001432	0.3397	mg/L	0.03581	10.54%
B 249.677†	16.8	0.00212	mg/L	0.000297	0.05312	mg/L	0.007436	14.00%
Ba 233.527†	758.2	0.1646	mg/L	0.00420	4.114	mg/L	0.1050	2.55%
Be 313.042†	273.4	0.00040	mg/L	0.000003	0.01005	mg/L	0.000066	0.66%
Ca 317.933†	71770.3	5.053	mg/L	0.1113	126.3	mg/L	2.78	2.20%
Cd 228.802†	206.8	0.00639	mg/L	0.000300	0.1597	mg/L	0.00751	4.70%
Co 228.616†	254.3	0.00611	mg/L	0.000352	0.1528	mg/L	0.00881	5.77%
Cr 267.716†	113.1	0.01834	mg/L	0.000407	0.4586	mg/L	0.01017	2.22%
Cu 324.752†	4046.4	0.01612	mg/L	0.000502	0.4031	mg/L	0.01255	3.11%
Fe 273.955†	20501.2	15.64	mg/L	0.311	390.9	mg/L	7.78	1.99%
K 766.490†	3170.9	1.591	mg/L	0.0330	39.77	mg/L	0.824	2.07%
Mg 279.077†	5949.6	4.026	mg/L	0.0876	100.7	mg/L	2.19	2.18%
Mn 257.610†	30005.1	0.8294	mg/L	0.01613	20.74	mg/L	0.403	1.95%
Mo 202.031†	6.0	0.00024	mg/L	0.000049	0.00604	mg/L	0.001227	20.33%
Na 589.592†	1421.5	0.1116	mg/L	0.00303	2.789	mg/L	0.0756	2.71%
Na 330.237†	-3.1	-0.1092	mg/L	0.07862	-2.731	mg/L	1.9656	71.98%
Ni 231.604†	68.1	0.01652	mg/L	0.001190	0.4129	mg/L	0.02976	7.21%
Pb 220.353†	2560.8	0.3219	mg/L	0.01264	8.047	mg/L	0.3160	3.93%
Sb 206.836†	3.4	0.00104	mg/L	0.000556	0.02598	mg/L	0.013899	53.49%
Se 196.026†	3.9	0.00258	mg/L	0.001108	0.06456	mg/L	0.027700	42.91%
Si 288.158†	281.0	0.1311	mg/L	0.00594	3.276	mg/L	0.1485	4.53%
Sn 189.927†	-7.7	-0.00127	mg/L	0.000459	-0.03170	mg/L	0.011486	36.23%
Sr 421.552†	51875.7	0.05538	mg/L	0.001177	1.384	mg/L	0.0294	2.12%
Ti 334.903†	9493.8	0.4553	mg/L	0.00925	11.38	mg/L	0.231	2.03%
Tl 190.801†	5.5	0.00370	mg/L	0.000800	0.09261	mg/L	0.019997	21.59%
V 292.402†	2466.2	0.01823	mg/L	0.000779	0.4558	mg/L	0.01946	4.27%
Zn 206.200†	1282.4	0.3164	mg/L	0.00787	7.909	mg/L	0.1967	2.49%

Sequence No.: 8
Sample ID: VR34 A SWC

Autosampler Location: 339
Date Collected: 11/16/2012 1:59:31 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2314300.0	102.5	%	0.92				0.90%
ScR 361.383	299174.6	104.6	%	0.71				0.68%
Ag 328.068†	110.7	0.00065	mg/L	0.000167	0.00327	mg/L	0.000836	25.58%
Al 308.215†	88802.6	49.86	mg/L	1.074	249.3	mg/L	5.37	2.15%
As 188.979†	4.5	0.06366	mg/L	0.001448	0.3183	mg/L	0.00724	2.27%
B 249.677†	86.3	0.01094	mg/L	0.000985	0.05468	mg/L	0.004924	9.00%
Ba 233.527†	3689.5	0.8009	mg/L	0.01287	4.004	mg/L	0.0644	1.61%
Be 313.042†	1248.5	0.00183	mg/L	0.000040	0.00916	mg/L	0.000202	2.20%
Ca 317.933†	352649.6	24.83	mg/L	0.517	124.1	mg/L	2.59	2.08%
Cd 228.802†	1112.9	0.03446	mg/L	0.001205	0.1723	mg/L	0.00603	3.50%
Co 228.616†	1293.6	0.03138	mg/L	0.000852	0.1569	mg/L	0.00426	2.72%
Cr 267.716†	578.6	0.09385	mg/L	0.002332	0.4692	mg/L	0.01166	2.48%
Cu 324.752†	20987.8	0.08346	mg/L	0.002414	0.4173	mg/L	0.01207	2.89%
Fe 273.955†	99522.2	75.91	mg/L	1.483	379.5	mg/L	7.41	1.95%
K 766.490†	15530.5	7.792	mg/L	0.1621	38.96	mg/L	0.811	2.08%
Mg 279.077†	27662.9	18.72	mg/L	0.361	93.59	mg/L	1.805	1.93%
Mn 257.610†	146171.2	4.041	mg/L	0.0760	20.20	mg/L	0.380	1.88%
Mo 202.031†	54.2	0.00243	mg/L	0.000284	0.01214	mg/L	0.001421	11.70%
Na 589.592†	6779.0	0.5321	mg/L	0.00845	2.660	mg/L	0.0422	1.59%
Na 330.237†	4.2	0.1332	mg/L	0.03323	0.6660	mg/L	0.16614	24.94%
Ni 231.604†	318.8	0.07737	mg/L	0.001789	0.3868	mg/L	0.00894	2.31%
Pb 220.353†	12668.8	1.592	mg/L	0.0437	7.961	mg/L	0.2186	2.75%
Sb 206.836†	31.4	0.00957	mg/L	0.001681	0.04786	mg/L	0.008405	17.56%
Se 196.026†	10.9	0.00724	mg/L	0.002799	0.03618	mg/L	0.013995	38.68%
Si 288.158†	1387.4	0.6470	mg/L	0.00376	3.235	mg/L	0.0188	0.58%
Sn 189.927†	-8.5	0.00127	mg/L	0.001245	0.00636	mg/L	0.006227	97.87%
Sr 421.552†	249751.0	0.2666	mg/L	0.00570	1.333	mg/L	0.0285	2.14%
Ti 334.903†	45757.7	2.194	mg/L	0.0445	10.97	mg/L	0.223	2.03%
Tl 190.801†	-12.5	0.00267	mg/L	0.003570	0.01337	mg/L	0.017851	133.52%
V 292.402†	12369.5	0.09158	mg/L	0.002581	0.4579	mg/L	0.01290	2.82%
Zn 206.200†	6290.9	1.552	mg/L	0.0246	7.759	mg/L	0.1228	1.58%

Sequence No.: 9
Sample ID: VR34 ADUP SWC

Autosampler Location: 340
Date Collected: 11/16/2012 2:03:32 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 ADUP SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2328273.0	103.1	%	1.06				1.03%
ScR 361.383	299292.2	104.7	%	1.05				1.00%
Ag 328.068†	108.1	0.00064	mg/L	0.000080	0.00321	mg/L	0.000401	12.49%
Al 308.215†	91719.1	51.50	mg/L	1.216	257.5	mg/L	6.08	2.36%
As 188.979†	8.2	0.07056	mg/L	0.003173	0.3528	mg/L	0.01587	4.50%
B 249.677†	97.2	0.01232	mg/L	0.001161	0.06162	mg/L	0.005804	9.42%
Ba 233.527†	3908.7	0.8489	mg/L	0.01979	4.245	mg/L	0.0990	2.33%
Be 313.042†	1296.8	0.00190	mg/L	0.000057	0.00951	mg/L	0.000284	2.99%
Ca 317.933†	382770.2	26.95	mg/L	0.496	134.7	mg/L	2.48	1.84%
Cd 228.802†	1255.8	0.03895	mg/L	0.000370	0.1947	mg/L	0.00185	0.95%
Co 228.616†	1350.5	0.03263	mg/L	0.000577	0.1631	mg/L	0.00289	1.77%
Cr 267.716†	619.7	0.1004	mg/L	0.00378	0.5021	mg/L	0.01891	3.77%
Cu 324.752†	24044.6	0.09524	mg/L	0.001394	0.4762	mg/L	0.00697	1.46%
Fe 273.955†	101505.6	77.42	mg/L	1.462	387.1	mg/L	7.31	1.89%
K 766.490†	16343.3	8.200	mg/L	0.1846	41.00	mg/L	0.923	2.25%
Mg 279.077†	28737.7	19.45	mg/L	0.386	97.23	mg/L	1.930	1.98%
Mn 257.610†	155887.1	4.309	mg/L	0.0892	21.55	mg/L	0.446	2.07%
Mo 202.031†	59.0	0.00264	mg/L	0.000292	0.01322	mg/L	0.001461	11.05%
Na 589.592†	6794.0	0.5332	mg/L	0.00972	2.666	mg/L	0.0486	1.82%
Na 330.237†	5.1	0.1452	mg/L	0.03203	0.7260	mg/L	0.16017	22.06%
Ni 231.604†	334.4	0.08114	mg/L	0.002222	0.4057	mg/L	0.01111	2.74%
Pb 220.353†	14247.3	1.790	mg/L	0.0223	8.949	mg/L	0.1116	1.25%
Sb 206.836†	40.5	0.01236	mg/L	0.000412	0.06178	mg/L	0.002060	3.33%
Se 196.026†	9.8	0.00649	mg/L	0.002224	0.03243	mg/L	0.011120	34.29%
Si 288.158†	1474.7	0.6877	mg/L	0.01993	3.438	mg/L	0.0997	2.90%
Sn 189.927†	-8.1	0.00165	mg/L	0.001594	0.00826	mg/L	0.007971	96.46%
Sr 421.552†	274886.8	0.2934	mg/L	0.00668	1.467	mg/L	0.0334	2.28%
Ti 334.903†	49439.8	2.371	mg/L	0.0514	11.85	mg/L	0.257	2.17%
Tl 190.801†	-5.3	0.00563	mg/L	0.002162	0.02815	mg/L	0.010810	38.40%
V 292.402†	13265.5	0.09834	mg/L	0.001224	0.4917	mg/L	0.00612	1.25%
Zn 206.200†	7029.2	1.734	mg/L	0.0404	8.670	mg/L	0.2019	2.33%

Sequence No.: 10
Sample ID: VR34 ASPK SWC

Autosampler Location: 341
Date Collected: 11/16/2012 2:07:33 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR34 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR34 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2290384.9	101.5	%	0.37				0.36%
ScR 361.383	296734.1	103.8	%	1.44				1.38%
Ag 328.068†	32996.7	0.1868	mg/L	0.00262	0.9340	mg/L	0.01311	1.40%
Al 308.215†	93533.3	52.51	mg/L	0.211	262.6	mg/L	1.05	0.40%
As 188.979†	1372.5	0.7891	mg/L	0.00765	3.945	mg/L	0.0382	0.97%
B 249.677†	100.0	0.01229	mg/L	0.000815	0.06144	mg/L	0.004077	6.64%
Ba 233.527†	7414.0	1.622	mg/L	0.0065	8.110	mg/L	0.0325	0.40%
Be 313.042†	126141.7	0.1896	mg/L	0.00033	0.9480	mg/L	0.00165	0.17%
Ca 317.933†	425417.8	29.95	mg/L	0.142	149.8	mg/L	0.71	0.48%
Cd 228.802†	7795.9	0.2408	mg/L	0.00280	1.204	mg/L	0.0140	1.16%
Co 228.616†	8163.2	0.2260	mg/L	0.00254	1.130	mg/L	0.0127	1.12%
Cr 267.716†	1883.8	0.3034	mg/L	0.00157	1.517	mg/L	0.0079	0.52%
Cu 324.752†	75506.6	0.2931	mg/L	0.00421	1.465	mg/L	0.0211	1.44%
Fe 273.955†	98694.8	75.27	mg/L	0.279	376.4	mg/L	1.39	0.37%
K 766.490†	24224.1	12.15	mg/L	0.067	60.77	mg/L	0.333	0.55%
Mg 279.077†	34975.6	23.68	mg/L	0.122	118.4	mg/L	0.61	0.52%
Mn 257.610†	157250.6	4.347	mg/L	0.0137	21.74	mg/L	0.068	0.31%
Mo 202.031†	59.3	0.00262	mg/L	0.000192	0.01309	mg/L	0.000958	7.32%
Na 589.592†	54201.4	4.254	mg/L	0.0100	21.27	mg/L	0.050	0.24%
Na 330.237†	128.6	4.371	mg/L	0.0491	21.85	mg/L	0.246	1.12%
Ni 231.604†	1111.1	0.2693	mg/L	0.00161	1.346	mg/L	0.0081	0.60%
Pb 220.353†	19972.9	2.506	mg/L	0.0340	12.53	mg/L	0.170	1.36%
Sb 206.836†	39.1	0.00968	mg/L	0.000339	0.04839	mg/L	0.001696	3.51%
Se 196.026†	1097.9	0.7371	mg/L	0.00804	3.686	mg/L	0.0402	1.09%
Si 288.158†	1363.5	0.6373	mg/L	0.00085	3.186	mg/L	0.0043	0.13%
Sn 189.927†	-16.2	-0.00004	mg/L	0.001009	-0.00020	mg/L	0.005047	>999.9%
Sr 421.552†	444789.2	0.4748	mg/L	0.00124	2.374	mg/L	0.0062	0.26%
Ti 334.903†	46940.6	2.251	mg/L	0.0058	11.25	mg/L	0.029	0.26%
Tl 190.801†	1800.1	0.7098	mg/L	0.00710	3.549	mg/L	0.0355	1.00%
V 292.402†	37360.2	0.2833	mg/L	0.00412	1.417	mg/L	0.0206	1.46%
Zn 206.200†	7574.0	1.868	mg/L	0.0044	9.342	mg/L	0.0222	0.24%

Sequence No.: 11
Sample ID: ~~VR34 APOST SWC~~
Dilution: 5.000000X

Autosampler Location: 342
Date Collected: 11/16/2012 2:11:35 PM
Data Type: Original

Nebulizer Parameters: VR34 APOST SWC

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: VR34 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2351668.7	104.2	%	1.12				1.08%
ScR 361.383	301301.7	105.4	%	0.66				0.63%
Ag 328.068†	90584.6	0.5128	mg/L	0.01477	2.564	mg/L	0.0739	2.88%
Al 308.215†	87509.6	49.13	mg/L	0.731	245.6	mg/L	3.66	1.49%
As 188.979†	3830.6	2.085	mg/L	0.0554	10.43	mg/L	0.277	2.65%
B 249.677†	92.9	0.01073	mg/L	0.001663	0.05367	mg/L	0.008317	15.50%
Ba 233.527†	12354.2	2.711	mg/L	0.0192	13.56	mg/L	0.096	0.71%
Be 313.042†	313224.6	0.4708	mg/L	0.00931	2.354	mg/L	0.0466	1.98%
Ca 317.933†	469111.1	33.03	mg/L	0.137	165.1	mg/L	0.68	0.41%
Cd 228.802†	18408.5	0.5673	mg/L	0.01651	2.837	mg/L	0.0826	2.91%
Co 228.616†	19387.5	0.5446	mg/L	0.01510	2.723	mg/L	0.0755	2.77%
Cr 267.716†	3602.1	0.5796	mg/L	0.00520	2.898	mg/L	0.0260	0.90%
Cu 324.752†	159541.0	0.6162	mg/L	0.01469	3.081	mg/L	0.0735	2.38%
Fe 273.955†	96809.2	73.83	mg/L	0.954	369.2	mg/L	4.77	1.29%
K 766.490†	33631.6	16.87	mg/L	0.047	84.37	mg/L	0.233	0.28%
Mg 279.077†	40059.2	27.13	mg/L	0.101	135.6	mg/L	0.51	0.37%
Mn 257.610†	155432.3	4.297	mg/L	0.0467	21.48	mg/L	0.233	1.09%
Mo 202.031†	63.4	0.00277	mg/L	0.000063	0.01385	mg/L	0.000317	2.29%
Na 589.592†	122990.0	9.653	mg/L	0.1164	48.26	mg/L	0.582	1.21%
Na 330.237†	296.0	10.14	mg/L	0.069	50.72	mg/L	0.344	0.68%
Ni 231.604†	2196.5	0.5321	mg/L	0.00391	2.661	mg/L	0.0195	0.73%
Pb 220.353†	27814.8	3.485	mg/L	0.0501	17.43	mg/L	0.250	1.44%
Sb 206.836†	48.1	0.00963	mg/L	0.001524	0.04816	mg/L	0.007622	15.83%
Se 196.026†	3057.3	2.053	mg/L	0.0575	10.26	mg/L	0.287	2.80%
Si 288.158†	1303.7	0.6111	mg/L	0.01168	3.056	mg/L	0.0584	1.91%
Sn 189.927†	-18.4	-0.00021	mg/L	0.000201	-0.00103	mg/L	0.001003	97.83%
Sr 421.552†	667661.5	0.7127	mg/L	0.00388	3.564	mg/L	0.0194	0.54%
Ti 334.903†	43476.0	2.084	mg/L	0.0305	10.42	mg/L	0.152	1.46%
Tl 190.801†	4964.5	1.944	mg/L	0.0569	9.722	mg/L	0.2845	2.93%
V 292.402†	79121.9	0.6035	mg/L	0.01479	3.018	mg/L	0.0740	2.45%
Zn 206.200†	7764.9	1.916	mg/L	0.0232	9.578	mg/L	0.1162	1.21%

Sequence No.: 12
Sample ID: VR34 MB1SPK SWC

Autosampler Location: 343
Date Collected: 11/16/2012 2:15:37 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR34 MB1SPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR34 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2267576.0	100.5	%	0.52				0.52%
ScR 361.383	289336.8	101.2	%	1.47				1.45%
Ag 328.068†	87075.9	0.4929	mg/L	0.01242	0.9858	mg/L	0.02484	2.52%
Al 308.215†	3619.1	2.025	mg/L	0.0272	4.050	mg/L	0.0544	1.34%
As 188.979†	3544.4	1.876	mg/L	0.0545	3.751	mg/L	0.1091	2.91%
B 249.677†	9.7	0.00023	mg/L	0.000794	0.00046	mg/L	0.001589	344.06%
Ba 233.527†	9278.7	2.045	mg/L	0.0226	4.090	mg/L	0.0453	1.11%
Be 313.042†	329497.0	0.4954	mg/L	0.00461	0.9907	mg/L	0.00922	0.93%
Ca 317.933†	141179.6	9.939	mg/L	0.1091	19.88	mg/L	0.218	1.10%
Cd 228.802†	16511.7	0.5091	mg/L	0.01473	1.018	mg/L	0.0295	2.89%
Co 228.616†	17324.0	0.4911	mg/L	0.01328	0.9821	mg/L	0.02655	2.70%
Cr 267.716†	3208.6	0.5155	mg/L	0.00672	1.031	mg/L	0.0134	1.30%
Cu 324.752†	123950.8	0.4767	mg/L	0.01514	0.9535	mg/L	0.03028	3.18%
Fe 273.955†	2727.6	2.077	mg/L	0.0333	4.154	mg/L	0.0665	1.60%
K 766.490†	19835.7	9.952	mg/L	0.1670	19.90	mg/L	0.334	1.68%
Mg 279.077†	15100.3	10.24	mg/L	0.117	20.48	mg/L	0.235	1.15%
Mn 257.610†	18637.2	0.5155	mg/L	0.00669	1.031	mg/L	0.0134	1.30%
Mo 202.031†	15.9	0.00066	mg/L	0.000084	0.00132	mg/L	0.000168	12.78%
Na 589.592†	123189.7	9.669	mg/L	0.1194	19.34	mg/L	0.239	1.23%
Na 330.237†	287.1	9.831	mg/L	0.2926	19.66	mg/L	0.585	2.98%
Ni 231.604†	1998.7	0.4842	mg/L	0.00527	0.9684	mg/L	0.01055	1.09%
Pb 220.353†	15033.6	1.880	mg/L	0.0481	3.759	mg/L	0.0962	2.56%
Sb 206.836†	18.8	0.00021	mg/L	0.001722	0.00042	mg/L	0.003445	815.71%
Se 196.026†	2825.6	1.897	mg/L	0.0604	3.795	mg/L	0.1208	3.18%
Si 288.158†	-8.1	-0.00065	mg/L	0.001867	-0.00130	mg/L	0.003733	287.48%
Sn 189.927†	-23.9	-0.00485	mg/L	0.000639	-0.00969	mg/L	0.001278	13.19%
Sr 421.552†	457551.1	0.4884	mg/L	0.00575	0.9769	mg/L	0.01150	1.18%
Ti 334.903†	57.0	0.00216	mg/L	0.000258	0.00432	mg/L	0.000515	11.94%
Tl 190.801†	4688.3	1.829	mg/L	0.0526	3.659	mg/L	0.1051	2.87%
V 292.402†	63899.3	0.4901	mg/L	0.01248	0.9803	mg/L	0.02495	2.55%
Zn 206.200†	1977.5	0.4879	mg/L	0.00532	0.9757	mg/L	0.01064	1.09%

Sequence No.: 13
Sample ID: CV9
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/16/2012 2:19:38 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	2303611.5	102.1	%	1.41				1.38%
ScR 361.383	286578.5	100.2	%	0.78				0.78%
Ag 328.068†	168518.2	0.9539	mg/L	0.02429	0.9539	mg/L	0.02429	2.55%
Al 308.215†	3600.3	1.987	mg/L	0.0311	1.987	mg/L	0.0311	1.56%
As 188.979†	3634.5	1.950	mg/L	0.0265	1.950	mg/L	0.0265	1.36%
B 249.677†	7509.3	0.9575	mg/L	0.01257	0.9575	mg/L	0.01257	1.31%
Ba 233.527†	4630.9	1.020	mg/L	0.0095	1.020	mg/L	0.0095	0.93%
Be 313.042†	642288.1	0.9656	mg/L	0.00731	0.9656	mg/L	0.00731	0.76%
Ca 317.933†	29093.1	2.048	mg/L	0.0222	2.048	mg/L	0.0222	1.08%
Cd 228.802†	32544.7	1.015	mg/L	0.0224	1.015	mg/L	0.0224	2.20%
Co 228.616†	35274.3	0.9983	mg/L	0.02238	0.9983	mg/L	0.02238	2.24%
Cr 267.716†	6359.7	1.023	mg/L	0.0100	1.023	mg/L	0.0100	0.98%
Cu 324.752†	256392.8	0.9856	mg/L	0.02327	0.9856	mg/L	0.02327	2.36%
Fe 273.955†	2711.3	2.061	mg/L	0.0286	2.061	mg/L	0.0286	1.39%
K 766.490†	40019.4	20.08	mg/L	0.097	20.08	mg/L	0.097	0.48%
Mg 279.077†	2977.9	2.027	mg/L	0.0190	2.027	mg/L	0.0190	0.94%
Mn 257.610†	37488.2	1.037	mg/L	0.0122	1.037	mg/L	0.0122	1.17%
Mo 202.031†	20325.9	1.013	mg/L	0.0124	1.013	mg/L	0.0124	1.22%
Na 589.592†	627947.3	49.29	mg/L	0.327	49.29	mg/L	0.327	0.66%
Na 330.237†	1479.6	51.40	mg/L	0.244	51.40	mg/L	0.244	0.48%
Ni 231.604†	3989.9	0.9684	mg/L	0.00779	0.9684	mg/L	0.00779	0.80%
Pb 220.353†	15840.5	1.981	mg/L	0.0238	1.981	mg/L	0.0238	1.20%
Sb 206.836†	6827.4	2.087	mg/L	0.0295	2.087	mg/L	0.0295	1.41%
Se 196.026†	2855.0	1.917	mg/L	0.0250	1.917	mg/L	0.0250	1.30%
Si 288.158†	4453.6	2.069	mg/L	0.0323	2.069	mg/L	0.0323	1.56%
Sn 189.927†	3907.7	1.004	mg/L	0.0140	1.004	mg/L	0.0140	1.39%
Sr 421.552†	903823.6	0.9649	mg/L	0.00632	0.9649	mg/L	0.00632	0.66%
Ti 334.903†	22054.1	1.057	mg/L	0.0113	1.057	mg/L	0.0113	1.07%
Tl 190.801†	4917.4	1.915	mg/L	0.0253	1.915	mg/L	0.0253	1.32%
V 292.402†	128984.3	0.9894	mg/L	0.02351	0.9894	mg/L	0.02351	2.38%
Zn 206.200†	4067.0	1.003	mg/L	0.0101	1.003	mg/L	0.0101	1.01%

Sequence No.: 14
Sample ID: CB 9
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/16/2012 2:23:45 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2311198.6	102.4	%	0.12				0.12%
ScR 361.383	290895.3	101.7	%	0.80				0.79%
Ag 328.068†	35.9	0.00020	mg/L	0.000128	0.00020	mg/L	0.000128	63.16%
Al 308.215†	19.6	0.01102	mg/L	0.005135	0.01102	mg/L	0.005135	46.59%
As 188.979†	-2.0	-0.00106	mg/L	0.001698	-0.00106	mg/L	0.001698	160.83%
B 249.677†	9.7	0.00124	mg/L	0.000912	0.00124	mg/L	0.000912	73.47%
Ba 233.527†	1.2	0.00026	mg/L	0.000738	0.00026	mg/L	0.000738	279.83%
Be 313.042†	174.5	0.00026	mg/L	0.000048	0.00026	mg/L	0.000048	18.43%
Ca 317.933†	38.0	0.00268	mg/L	0.000640	0.00268	mg/L	0.000640	23.94%
Cd 228.802†	-7.9	-0.00024	mg/L	0.000108	-0.00024	mg/L	0.000108	44.71%
Co 228.616†	-4.0	-0.00011	mg/L	0.000092	-0.00011	mg/L	0.000092	80.39%
Cr 267.716†	-3.0	-0.00049	mg/L	0.000718	-0.00049	mg/L	0.000718	147.19%
Cu 324.752†	-53.2	-0.00020	mg/L	0.000194	-0.00020	mg/L	0.000194	94.93%
Fe 273.955†	10.5	0.00801	mg/L	0.001908	0.00801	mg/L	0.001908	23.83%
K 766.490†	-12.2	-0.00611	mg/L	0.020361	-0.00611	mg/L	0.020361	333.37%
Mg 279.077†	2.5	0.00168	mg/L	0.003745	0.00168	mg/L	0.003745	222.53%
Mn 257.610†	4.3	0.00012	mg/L	0.000108	0.00012	mg/L	0.000108	90.44%
Mo 202.031†	13.2	0.00066	mg/L	0.000250	0.00066	mg/L	0.000250	38.20%
Na 589.592†	124.7	0.00978	mg/L	0.004186	0.00978	mg/L	0.004186	42.79%
Na 330.237†	-0.4	-0.01519	mg/L	0.330429	-0.01519	mg/L	0.330429	>999.9%
Ni 231.604†	-1.1	-0.00028	mg/L	0.000775	-0.00028	mg/L	0.000775	279.60%
Pb 220.353†	-1.3	-0.00016	mg/L	0.000548	-0.00016	mg/L	0.000548	351.13%
Sb 206.836†	8.5	0.00261	mg/L	0.001787	0.00261	mg/L	0.001787	68.50%
Se 196.026†	1.5	0.00101	mg/L	0.002227	0.00101	mg/L	0.002227	220.16%
Si 288.158†	6.7	0.00311	mg/L	0.000885	0.00311	mg/L	0.000885	28.47%
Sn 189.927†	-3.2	-0.00082	mg/L	0.000249	-0.00082	mg/L	0.000249	30.40%
Sr 421.552†	252.5	0.00027	mg/L	0.000039	0.00027	mg/L	0.000039	14.60%
Ti 334.903†	16.7	0.00080	mg/L	0.000550	0.00080	mg/L	0.000550	68.72%
Tl 190.801†	3.3	0.00131	mg/L	0.000650	0.00131	mg/L	0.000650	49.71%
V 292.402†	-29.3	-0.00023	mg/L	0.000030	-0.00023	mg/L	0.000030	13.27%
Zn 206.200†	-1.2	-0.00029	mg/L	0.000488	-0.00029	mg/L	0.000488	165.87%

Sequence No.: 15
Sample ID: VR33 MB1 SWC

Autosampler Location: 344
Date Collected: 11/16/2012 2:28:01 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR33 MB1 SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR33 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2303307.5	102.0	%	1.71				1.68%
ScR 361.383	300037.2	104.9	%	0.62				0.59%
Ag 328.068†	25.8	0.00015	mg/L	0.000211	0.00029	mg/L	0.000423	144.94%
Al 308.215†	18.5	0.01040	mg/L	0.008747	0.02080	mg/L	0.017494	84.10%
As 188.979†	-2.4	-0.00124	mg/L	0.000890	-0.00248	mg/L	0.001780	71.92%
B 249.677†	5.4	0.00070	mg/L	0.000542	0.00139	mg/L	0.001084	77.87%
Ba 233.527†	-2.9	-0.00065	mg/L	0.000719	-0.00129	mg/L	0.001438	111.16%
Be 313.042†	26.6	0.00004	mg/L	0.000009	0.00008	mg/L	0.000019	23.24%
Ca 317.933†	80.7	0.00568	mg/L	0.000726	0.01137	mg/L	0.001451	12.76%
Cd 228.802†	-16.6	-0.00051	mg/L	0.000120	-0.00103	mg/L	0.000239	23.28%
Co 228.616†	-14.4	-0.00041	mg/L	0.000185	-0.00082	mg/L	0.000371	44.99%
Cr 267.716†	-9.7	-0.00156	mg/L	0.000722	-0.00312	mg/L	0.001443	46.25%
Cu 324.752†	-81.5	-0.00031	mg/L	0.000108	-0.00063	mg/L	0.000216	34.44%
Fe 273.955†	10.5	0.00802	mg/L	0.000313	0.01605	mg/L	0.000626	3.90%
K 766.490†	-33.3	-0.01670	mg/L	0.021499	-0.03340	mg/L	0.042997	128.72%
Mg 279.077†	0.3	0.00020	mg/L	0.000867	0.00040	mg/L	0.001733	437.49%
Mn 257.610†	-5.7	-0.00016	mg/L	0.000058	-0.00031	mg/L	0.000116	36.88%
Mo 202.031†	-0.6	-0.00003	mg/L	0.000078	-0.00006	mg/L	0.000156	250.42%
Na 589.592†	22.2	0.00174	mg/L	0.003715	0.00348	mg/L	0.007429	213.42%
Na 330.237†	2.6	0.08880	mg/L	0.033144	0.1776	mg/L	0.06629	37.33%
Ni 231.604†	0.9	0.00022	mg/L	0.000944	0.00044	mg/L	0.001888	433.79%
Pb 220.353†	-0.8	-0.00010	mg/L	0.000634	-0.00020	mg/L	0.001267	648.83%
Sb 206.836†	-2.8	-0.00083	mg/L	0.000631	-0.00165	mg/L	0.001262	76.38%
Se 196.026†	3.8	0.00253	mg/L	0.003651	0.00507	mg/L	0.007301	144.11%
Si 288.158†	-1.4	-0.00067	mg/L	0.002745	-0.00133	mg/L	0.005489	411.18%
Sn 189.927†	-2.7	-0.00070	mg/L	0.000635	-0.00141	mg/L	0.001271	90.29%
Sr 421.552†	43.6	0.00005	mg/L	0.000030	0.00009	mg/L	0.000060	64.64%
Ti 334.903†	26.7	0.00128	mg/L	0.000205	0.00256	mg/L	0.000411	16.04%
Tl 190.801†	2.2	0.00087	mg/L	0.001734	0.00174	mg/L	0.003468	199.80%
V 292.402†	-24.8	-0.00020	mg/L	0.000184	-0.00039	mg/L	0.000367	93.23%
Zn 206.200†	2.9	0.00072	mg/L	0.000264	0.00144	mg/L	0.000529	36.72%

Sequence No.: 16
Sample ID: VR33 B SWC

Autosampler Location: 345
Date Collected: 11/16/2012 2:32:18 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR33 B SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2219830.9	98.34	%	0.126				0.13%
ScR 361.383	286637.4	100.2	%	1.57				1.56%
Ag 328.068†	-92.2	-0.00049	mg/L	0.000097	-0.00245	mg/L	0.000487	19.86%
Al 308.215†	105103.1	59.01	mg/L	1.307	295.1	mg/L	6.54	2.22%
As 188.979†	-62.7	0.03511	mg/L	0.003115	0.1755	mg/L	0.01557	8.87%
B 249.677†	80.1	0.01016	mg/L	0.000293	0.05079	mg/L	0.001466	2.89%
Ba 233.527†	5809.2	1.270	mg/L	0.0247	6.348	mg/L	0.1233	1.94%
Be 313.042†	1350.3	0.00198	mg/L	0.000057	0.00990	mg/L	0.000287	2.90%
Ca 317.933†	286177.4	20.15	mg/L	0.473	100.7	mg/L	2.36	2.35%
Cd 228.802†	543.4	0.01678	mg/L	0.000181	0.08388	mg/L	0.000907	1.08%
Co 228.616†	1056.1	0.02427	mg/L	0.000283	0.1214	mg/L	0.00142	1.17%
Cr 267.716†	493.1	0.08011	mg/L	0.001290	0.4006	mg/L	0.00645	1.61%
Cu 324.752†	14918.8	0.05971	mg/L	0.000490	0.2986	mg/L	0.00245	0.82%
Fe 273.955†	88142.6	67.23	mg/L	1.698	336.1	mg/L	8.49	2.53%
K 766.490†	11716.1	5.878	mg/L	0.1287	29.39	mg/L	0.643	2.19%
Mg 279.077†	22890.8	15.49	mg/L	0.357	77.44	mg/L	1.786	2.31%
Mn 257.610†	132123.8	3.652	mg/L	0.0893	18.26	mg/L	0.447	2.45%
Mo 202.031†	52.9	0.00242	mg/L	0.000475	0.01208	mg/L	0.002375	19.66%
Na 589.592†	9514.1	0.7467	mg/L	0.01571	3.734	mg/L	0.0786	2.10%
Na 330.237†	-4.1	0.09450	mg/L	0.366734	0.4725	mg/L	1.83367	388.09%
Ni 231.604†	224.0	0.05436	mg/L	0.000419	0.2718	mg/L	0.00209	0.77%
Pb 220.353†	6357.5	0.8060	mg/L	0.00286	4.030	mg/L	0.0143	0.35%
Sb 206.836†	15.9	0.00514	mg/L	0.002021	0.02568	mg/L	0.010104	39.35%
Se 196.026†	8.2	0.00544	mg/L	0.005339	0.02722	mg/L	0.026697	98.06%
Si 288.158†	3703.8	1.723	mg/L	0.0212	8.614	mg/L	0.1060	1.23%
Sn 189.927†	-28.3	-0.00439	mg/L	0.000970	-0.02195	mg/L	0.004850	22.09%
Sr 421.552†	250087.6	0.2670	mg/L	0.00580	1.335	mg/L	0.0290	2.17%
Ti 334.903†	50670.2	2.430	mg/L	0.0576	12.15	mg/L	0.288	2.37%
Tl 190.801†	-7.8	0.00356	mg/L	0.001600	0.01778	mg/L	0.008000	45.00%
V 292.402†	14351.5	0.1068	mg/L	0.00057	0.5338	mg/L	0.00283	0.53%
Zn 206.200†	3880.5	0.9573	mg/L	0.01841	4.786	mg/L	0.0920	1.92%

Sequence No.: 17
Sample ID: VR33 C SWC

Autosampler Location: 346
Date Collected: 11/16/2012 2:36:19 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 C SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2181297.6	96.64	%	1.797				1.86%
ScR 361.383	283698.7	99.22	%	2.024				2.04%
Ag 328.068†	-161.7	-0.00086	mg/L	0.000023	-0.00429	mg/L	0.000117	2.72%
Al 308.215†	155053.6	87.05	mg/L	1.240	435.3	mg/L	6.20	1.42%
As 188.979†	-112.4	0.07619	mg/L	0.001217	0.3810	mg/L	0.00609	1.60%
B 249.677†	140.0	0.01766	mg/L	0.000908	0.08832	mg/L	0.004542	5.14%
Ba 233.527†	14908.5	3.261	mg/L	0.0705	16.31	mg/L	0.353	2.16%
Be 313.042†	2223.3	0.00325	mg/L	0.000092	0.01623	mg/L	0.000458	2.82%
Ca 317.933†	850767.8	59.90	mg/L	0.929	299.5	mg/L	4.64	1.55%
Cd 228.802†	990.8	0.03048	mg/L	0.001102	0.1524	mg/L	0.00551	3.61%
Co 228.616†	3667.5	0.09227	mg/L	0.002238	0.4614	mg/L	0.01119	2.43%
Cr 267.716†	2576.9	0.4149	mg/L	0.00842	2.075	mg/L	0.0421	2.03%
Cu 324.752†	46787.0	0.1853	mg/L	0.00396	0.9264	mg/L	0.01981	2.14%
Fe 273.955†	202219.2	154.2	mg/L	2.10	771.2	mg/L	10.51	1.36%
K 766.490†	37180.1	18.65	mg/L	0.207	93.27	mg/L	1.037	1.11%
Mg 279.077†	80272.5	54.35	mg/L	0.810	271.8	mg/L	4.05	1.49%
Mn 257.610†	263319.7	7.279	mg/L	0.1013	36.39	mg/L	0.506	1.39%
Mo 202.031†	116.6	0.00514	mg/L	0.000312	0.02571	mg/L	0.001560	6.07%
Na 589.592†	5965.3	0.4682	mg/L	0.00837	2.341	mg/L	0.0419	1.79%
Na 330.237†	-26.4	-0.3796	mg/L	0.15098	-1.898	mg/L	0.7549	39.77%
Ni 231.604†	1270.9	0.3084	mg/L	0.00484	1.542	mg/L	0.0242	1.57%
Pb 220.353†	10893.8	1.376	mg/L	0.0283	6.882	mg/L	0.1414	2.06%
Sb 206.836†	35.7	0.00776	mg/L	0.001053	0.03879	mg/L	0.005267	13.58%
Se 196.026†	9.7	0.00635	mg/L	0.002210	0.03176	mg/L	0.011049	34.79%
Si 288.158†	2309.5	1.080	mg/L	0.0222	5.398	mg/L	0.1108	2.05%
Sn 189.927†	-21.2	0.00272	mg/L	0.001641	0.01358	mg/L	0.008205	60.40%
Sr 421.552†	466051.7	0.4975	mg/L	0.00641	2.488	mg/L	0.0320	1.29%
Ti 334.903†	101749.7	4.879	mg/L	0.0730	24.40	mg/L	0.365	1.50%
Tl 190.801†	-33.1	0.00215	mg/L	0.001727	0.01077	mg/L	0.008637	80.22%
V 292.402†	25525.8	0.1897	mg/L	0.00409	0.9483	mg/L	0.02046	2.16%
Zn 206.200†	7042.6	1.737	mg/L	0.0359	8.686	mg/L	0.1796	2.07%

Sequence No.: 18
Sample ID: VR33 D SWC

Autosampler Location: 347
Date Collected: 11/16/2012 2:40:07 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 D SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2191568.1	97.09	%	1.772				1.83%
ScR 361.383	279449.2	97.73	%	1.708				1.75%
Ag 328.068†	-84.8	-0.00044	mg/L	0.000218	-0.00219	mg/L	0.001092	49.77%
Al 308.215†	122049.4	68.53	mg/L	1.449	342.6	mg/L	7.25	2.11%
As 188.979†	-31.1	0.06484	mg/L	0.002648	0.3242	mg/L	0.01324	4.08%
B 249.677†	79.1	0.00999	mg/L	0.000330	0.04995	mg/L	0.001648	3.30%
Ba 233.527†	5498.0	1.197	mg/L	0.0265	5.983	mg/L	0.1323	2.21%
Be 313.042†	1493.3	0.00218	mg/L	0.000080	0.01091	mg/L	0.000399	3.66%
Ca 317.933†	331318.6	23.33	mg/L	0.433	116.6	mg/L	2.17	1.86%
Cd 228.802†	844.1	0.02593	mg/L	0.000562	0.1296	mg/L	0.00281	2.17%
Co 228.616†	1860.3	0.04584	mg/L	0.000989	0.2292	mg/L	0.00495	2.16%
Cr 267.716†	747.3	0.1215	mg/L	0.00267	0.6077	mg/L	0.01337	2.20%
Cu 324.752†	27057.1	0.1074	mg/L	0.00163	0.5372	mg/L	0.00814	1.52%
Fe 273.955†	123089.0	93.88	mg/L	1.801	469.4	mg/L	9.00	1.92%
K 766.490†	22932.9	11.51	mg/L	0.207	57.53	mg/L	1.036	1.80%
Mg 279.077†	31216.4	21.12	mg/L	0.418	105.6	mg/L	2.09	1.98%
Mn 257.610†	129888.2	3.590	mg/L	0.0688	17.95	mg/L	0.344	1.91%
Mo 202.031†	73.6	0.00341	mg/L	0.000275	0.01704	mg/L	0.001377	8.08%
Na 589.592†	7004.8	0.5498	mg/L	0.00892	2.749	mg/L	0.0446	1.62%
Na 330.237†	-21.0	-0.4676	mg/L	0.14319	-2.338	mg/L	0.7160	30.62%
Ni 231.604†	355.6	0.08629	mg/L	0.001285	0.4315	mg/L	0.00642	1.49%
Pb 220.353†	7076.7	0.8970	mg/L	0.01690	4.485	mg/L	0.0845	1.88%
Sb 206.836†	27.0	0.00827	mg/L	0.001708	0.04136	mg/L	0.008539	20.65%
Se 196.026†	5.3	0.00345	mg/L	0.002707	0.01725	mg/L	0.013533	78.43%
Si 288.158†	3254.8	1.515	mg/L	0.0370	7.574	mg/L	0.1851	2.44%
Sn 189.927†	-30.9	-0.00458	mg/L	0.001453	-0.02292	mg/L	0.007263	31.69%
Sr 421.552†	192031.9	0.2050	mg/L	0.00396	1.025	mg/L	0.0198	1.93%
Ti 334.903†	60285.5	2.891	mg/L	0.0571	14.46	mg/L	0.285	1.97%
Tl 190.801†	-13.7	0.00387	mg/L	0.001335	0.01937	mg/L	0.006676	34.46%
V 292.402†	18696.7	0.1389	mg/L	0.00206	0.6946	mg/L	0.01031	1.48%
Zn 206.200†	4842.1	1.194	mg/L	0.0284	5.972	mg/L	0.1421	2.38%

Sequence No.: 19
Sample ID: VR33 A-L SWC

Autosampler Location: 348
Date Collected: 11/16/2012 2:44:08 PM
Data Type: Original

Dilution: 25.000000X

Nebulizer Parameters: VR33 A-L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2193796.2	97.19	%	0.834				0.86%
ScR 361.383	277795.2	97.16	%	1.767				1.82%
Ag 328.068†	26.5	0.00016	mg/L	0.000231	0.00390	mg/L	0.005781	148.38%
Al 308.215†	21514.8	12.08	mg/L	0.223	302.0	mg/L	5.58	1.85%
As 188.979†	-0.7	0.01322	mg/L	0.000993	0.3304	mg/L	0.02482	7.51%
B 249.677†	26.5	0.00337	mg/L	0.000864	0.08417	mg/L	0.021601	25.66%
Ba 233.527†	1135.7	0.2479	mg/L	0.00490	6.197	mg/L	0.1226	1.98%
Be 313.042†	345.4	0.00051	mg/L	0.000007	0.01274	mg/L	0.000163	1.28%
Ca 317.933†	93204.8	6.562	mg/L	0.1180	164.0	mg/L	2.95	1.80%
Cd 228.802†	224.0	0.00694	mg/L	0.000228	0.1736	mg/L	0.00570	3.28%
Co 228.616†	251.0	0.00596	mg/L	0.000289	0.1490	mg/L	0.00722	4.85%
Cr 267.716†	95.0	0.01538	mg/L	0.000584	0.3845	mg/L	0.01459	3.79%
Cu 324.752†	6296.5	0.02474	mg/L	0.000456	0.6185	mg/L	0.01140	1.84%
Fe 273.955†	19586.8	14.94	mg/L	0.322	373.5	mg/L	8.05	2.16%
K 766.490†	2963.1	1.487	mg/L	0.0066	37.17	mg/L	0.166	0.45%
Mg 279.077†	5876.9	3.977	mg/L	0.0681	99.43	mg/L	1.703	1.71%
Mn 257.610†	32754.0	0.9054	mg/L	0.01885	22.64	mg/L	0.471	2.08%
Mo 202.031†	12.3	0.00054	mg/L	0.000218	0.01358	mg/L	0.005444	40.08%
Na 589.592†	1728.9	0.1357	mg/L	0.00536	3.392	mg/L	0.1339	3.95%
Na 330.237†	-22.2	-0.7719	mg/L	0.10653	-19.30	mg/L	2.663	13.80%
Ni 231.604†	66.3	0.01608	mg/L	0.001396	0.4020	mg/L	0.03491	8.68%
Pb 220.353†	2999.5	0.3771	mg/L	0.00558	9.428	mg/L	0.1394	1.48%
Sb 206.836†	8.0	0.00250	mg/L	0.000705	0.06242	mg/L	0.017634	28.25%
Se 196.026†	0.9	0.00059	mg/L	0.002488	0.01479	mg/L	0.062200	420.42%
Si 288.158†	840.3	0.3909	mg/L	0.00667	9.774	mg/L	0.1666	1.70%
Sn 189.927†	-11.9	-0.00216	mg/L	0.000430	-0.05408	mg/L	0.010746	19.87%
Sr 421.552†	87736.5	0.09366	mg/L	0.001709	2.342	mg/L	0.0427	1.82%
Ti 334.903†	10172.9	0.4878	mg/L	0.00996	12.20	mg/L	0.249	2.04%
Tl 190.801†	-2.5	0.00052	mg/L	0.000990	0.01292	mg/L	0.024749	191.61%
V 292.402†	2643.6	0.01959	mg/L	0.000171	0.4898	mg/L	0.00427	0.87%
Zn 206.200†	1365.8	0.3369	mg/L	0.00632	8.423	mg/L	0.1579	1.87%

Sequence No.: 20
Sample ID: VR33 A SWC

Autosampler Location: 349
Date Collected: 11/16/2012 2:48:08 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2197010.1	97.33	%	0.829				0.85%
ScR 361.383	282869.4	98.93	%	0.700				0.71%
Ag 328.068†	85.5	0.00051	mg/L	0.000082	0.00256	mg/L	0.000411	16.03%
Al 308.215†	104658.3	58.76	mg/L	0.341	293.8	mg/L	1.71	0.58%
As 188.979†	1.2	0.06589	mg/L	0.000304	0.3294	mg/L	0.00152	0.46%
B 249.677†	116.0	0.01474	mg/L	0.001416	0.07368	mg/L	0.007080	9.61%
Ba 233.527†	5504.4	1.202	mg/L	0.0109	6.008	mg/L	0.0543	0.90%
Be 313.042†	1288.3	0.00189	mg/L	0.000030	0.00944	mg/L	0.000150	1.59%
Ca 317.933†	451121.9	31.76	mg/L	0.228	158.8	mg/L	1.14	0.72%
Cd 228.802†	1140.2	0.03538	mg/L	0.000526	0.1769	mg/L	0.00263	1.49%
Co 228.616†	1253.5	0.02997	mg/L	0.000432	0.1499	mg/L	0.00216	1.44%
Cr 267.716†	529.3	0.08568	mg/L	0.000969	0.4284	mg/L	0.00484	1.13%
Cu 324.752†	31458.7	0.1235	mg/L	0.00127	0.6175	mg/L	0.00633	1.03%
Fe 273.955†	93927.4	71.64	mg/L	0.504	358.2	mg/L	2.52	0.70%
K 766.490†	14416.4	7.233	mg/L	0.0401	36.16	mg/L	0.201	0.55%
Mg 279.077†	26949.7	18.24	mg/L	0.126	91.19	mg/L	0.631	0.69%
Mn 257.610†	157696.9	4.359	mg/L	0.0313	21.80	mg/L	0.157	0.72%
Mo 202.031†	66.1	0.00295	mg/L	0.000080	0.01473	mg/L	0.000400	2.72%
Na 589.592†	8522.9	0.6689	mg/L	0.00795	3.345	mg/L	0.0398	1.19%
Na 330.237†	-9.6	-0.3406	mg/L	0.15544	-1.703	mg/L	0.7772	45.64%
Ni 231.604†	342.9	0.08320	mg/L	0.002262	0.4160	mg/L	0.01131	2.72%
Pb 220.353†	14355.2	1.805	mg/L	0.0129	9.026	mg/L	0.0645	0.71%
Sb 206.836†	31.1	0.00966	mg/L	0.001820	0.04832	mg/L	0.009102	18.84%
Se 196.026†	3.1	0.00198	mg/L	0.002668	0.00991	mg/L	0.013339	134.56%
Si 288.158†	3973.7	1.849	mg/L	0.0152	9.243	mg/L	0.0759	0.82%
Sn 189.927†	-18.3	-0.00037	mg/L	0.000723	-0.00186	mg/L	0.003617	194.70%
Sr 421.552†	424255.2	0.4529	mg/L	0.00286	2.265	mg/L	0.0143	0.63%
Ti 334.903†	48922.9	2.346	mg/L	0.0144	11.73	mg/L	0.072	0.61%
Tl 190.801†	-9.5	0.00336	mg/L	0.000219	0.01681	mg/L	0.001096	6.52%
V 292.402†	13101.0	0.09724	mg/L	0.000991	0.4862	mg/L	0.00496	1.02%
Zn 206.200†	6642.3	1.639	mg/L	0.0155	8.193	mg/L	0.0776	0.95%

Sequence No.: 21
Sample ID: VR33 ADUP SWC

Autosampler Location: 350
Date Collected: 11/16/2012 2:52:09 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 ADUP SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR33 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2185960.0	96.84	%	1.328				1.37%
ScR 361.383	275819.5	96.46	%	2.010				2.08%
Ag 328.068†	14.1	0.00011	mg/L	0.000277	0.00054	mg/L	0.001387	255.07%
Al 308.215†	105731.2	59.36	mg/L	1.535	296.8	mg/L	7.67	2.59%
As 188.979†	-4.3	0.06320	mg/L	0.002367	0.3160	mg/L	0.01183	3.75%
B 249.677†	107.4	0.01364	mg/L	0.001102	0.06820	mg/L	0.005512	8.08%
Ba 233.527†	5397.3	1.178	mg/L	0.0244	5.890	mg/L	0.1219	2.07%
Be 313.042†	1289.0	0.00189	mg/L	0.000057	0.00945	mg/L	0.000284	3.00%
Ca 317.933†	448164.8	31.55	mg/L	0.806	157.8	mg/L	4.03	2.56%
Cd 228.802†	1082.5	0.03356	mg/L	0.000875	0.1678	mg/L	0.00437	2.61%
Co 228.616†	1205.7	0.02860	mg/L	0.001079	0.1430	mg/L	0.00540	3.77%
Cr 267.716†	512.2	0.08293	mg/L	0.001163	0.4146	mg/L	0.00582	1.40%
Cu 324.752†	30149.6	0.1185	mg/L	0.00244	0.5924	mg/L	0.01221	2.06%
Fe 273.955†	94574.0	72.13	mg/L	1.962	360.7	mg/L	9.81	2.72%
K 766.490†	13944.7	6.996	mg/L	0.2026	34.98	mg/L	1.013	2.90%
Mg 279.077†	27538.0	18.64	mg/L	0.491	93.18	mg/L	2.453	2.63%
Mn 257.610†	155747.2	4.305	mg/L	0.1145	21.53	mg/L	0.572	2.66%
Mo 202.031†	74.0	0.00334	mg/L	0.000157	0.01671	mg/L	0.000787	4.71%
Na 589.592†	8480.0	0.6656	mg/L	0.01996	3.328	mg/L	0.0998	3.00%
Na 330.237†	-7.5	-0.2539	mg/L	0.18269	-1.270	mg/L	0.9134	71.95%
Ni 231.604†	302.7	0.07346	mg/L	0.001435	0.3673	mg/L	0.00718	1.95%
Pb 220.353†	13523.3	1.701	mg/L	0.0349	8.507	mg/L	0.1745	2.05%
Sb 206.836†	28.3	0.00883	mg/L	0.002305	0.04416	mg/L	0.011524	26.09%
Se 196.026†	3.3	0.00217	mg/L	0.001722	0.01085	mg/L	0.008609	79.33%
Si 288.158†	2595.8	1.208	mg/L	0.0199	6.042	mg/L	0.0996	1.65%
Sn 189.927†	-19.9	-0.00081	mg/L	0.000521	-0.00403	mg/L	0.002606	64.60%
Sr 421.552†	414542.4	0.4425	mg/L	0.01142	2.213	mg/L	0.0571	2.58%
Ti 334.903†	49069.0	2.353	mg/L	0.0609	11.76	mg/L	0.305	2.59%
Tl 190.801†	-5.8	0.00489	mg/L	0.002419	0.02443	mg/L	0.012096	49.51%
V 292.402†	13204.4	0.09799	mg/L	0.001836	0.4900	mg/L	0.00918	1.87%
Zn 206.200†	6512.1	1.606	mg/L	0.0284	8.032	mg/L	0.1421	1.77%

Sequence No.: 22
Sample ID: VR33 ASPK SWC

Autosampler Location: 351
Date Collected: 11/16/2012 2:56:10 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR33 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2142405.4	94.91	%	1.753				1.85%
ScR 361.383	280968.0	98.26	%	0.452				0.46%
Ag 328.068†	36884.2	0.2088	mg/L	0.00372	1.044	mg/L	0.0186	1.78%
Al 308.215†	108079.9	60.68	mg/L	0.743	303.4	mg/L	3.71	1.22%
As 188.979†	1550.2	0.8844	mg/L	0.02144	4.422	mg/L	0.1072	2.42%
B 249.677†	118.8	0.01465	mg/L	0.000571	0.07324	mg/L	0.002856	3.90%
Ba 233.527†	9251.5	2.028	mg/L	0.0112	10.14	mg/L	0.056	0.55%
Be 313.042†	135482.4	0.2036	mg/L	0.00311	1.018	mg/L	0.0156	1.53%
Ca 317.933†	515656.7	36.30	mg/L	0.530	181.5	mg/L	2.65	1.46%
Cd 228.802†	8436.5	0.2604	mg/L	0.00689	1.302	mg/L	0.0344	2.64%
Co 228.616†	8954.3	0.2484	mg/L	0.00675	1.242	mg/L	0.0338	2.72%
Cr 267.716†	1867.2	0.3004	mg/L	0.00123	1.502	mg/L	0.0061	0.41%
Cu 324.752†	88984.5	0.3447	mg/L	0.00599	1.724	mg/L	0.0300	1.74%
Fe 273.955†	94471.8	72.05	mg/L	1.051	360.3	mg/L	5.25	1.46%
K 766.490†	22041.0	11.06	mg/L	0.146	55.29	mg/L	0.729	1.32%
Mg 279.077†	36383.7	24.64	mg/L	0.165	123.2	mg/L	0.83	0.67%
Mn 257.610†	161846.9	4.474	mg/L	0.0585	22.37	mg/L	0.293	1.31%
Mo 202.031†	69.5	0.00306	mg/L	0.000186	0.01528	mg/L	0.000930	6.08%
Na 589.592†	59637.9	4.681	mg/L	0.0522	23.40	mg/L	0.261	1.11%
Na 330.237†	125.3	4.289	mg/L	0.0369	21.45	mg/L	0.184	0.86%
Ni 231.604†	1122.9	0.2721	mg/L	0.00248	1.361	mg/L	0.0124	0.91%
Pb 220.353†	20306.6	2.550	mg/L	0.0484	12.75	mg/L	0.242	1.90%
Sb 206.836†	39.5	0.00996	mg/L	0.003632	0.04979	mg/L	0.018159	36.47%
Se 196.026†	1235.7	0.8297	mg/L	0.01667	4.148	mg/L	0.0833	2.01%
Si 288.158†	5135.2	2.390	mg/L	0.0121	11.95	mg/L	0.060	0.51%
Sn 189.927†	-27.5	-0.00214	mg/L	0.001481	-0.01070	mg/L	0.007407	69.22%
Sr 421.552†	610482.4	0.6517	mg/L	0.00803	3.259	mg/L	0.0402	1.23%
Ti 334.903†	48101.4	2.306	mg/L	0.0304	11.53	mg/L	0.152	1.32%
Tl 190.801†	2021.2	0.7956	mg/L	0.02131	3.978	mg/L	0.1066	2.68%
V 292.402†	41779.2	0.3172	mg/L	0.00593	1.586	mg/L	0.0297	1.87%
Zn 206.200†	7329.2	1.808	mg/L	0.0141	9.040	mg/L	0.0707	0.78%

Sequence No.: 23
Sample ID: ~~VR33 APOST SWC~~ zzzzz
Dilution: 5.000000X #11-20

Autosampler Location: 352
Date Collected: 11/16/2012 3:00:12 PM
Data Type: Original

Nebulizer Parameters: VR33 APOST SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR33 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2106758.8	93.34	%	1.847				1.98%
ScR 361.383	269886.5	94.39	%	1.647				1.75%
Ag 328.068†	94641.5	0.5357	mg/L	0.01631	2.679	mg/L	0.0815	3.04%
Al 308.215†	113885.5	63.94	mg/L	0.899	319.7	mg/L	4.49	1.41%
As 188.979†	4047.3	2.210	mg/L	0.0401	11.05	mg/L	0.201	1.81%
B 249.677†	139.2	0.01654	mg/L	0.002373	0.08269	mg/L	0.011866	14.35%
Ba 233.527†	15750.8	3.459	mg/L	0.0777	17.30	mg/L	0.388	2.25%
Be 313.042†	352511.0	0.5299	mg/L	0.00713	2.650	mg/L	0.0356	1.35%
Ca 317.933†	624108.6	43.94	mg/L	0.547	219.7	mg/L	2.73	1.24%
Cd 228.802†	20194.9	0.6230	mg/L	0.01324	3.115	mg/L	0.0662	2.12%
Co 228.616†	21137.7	0.5934	mg/L	0.01236	2.967	mg/L	0.0618	2.08%
Cr 267.716†	3988.6	0.6414	mg/L	0.01385	3.207	mg/L	0.0693	2.16%
Cu 324.752†	179961.7	0.6948	mg/L	0.02143	3.474	mg/L	0.1071	3.08%
Fe 273.955†	101000.5	77.03	mg/L	1.003	385.1	mg/L	5.01	1.30%
K 766.490†	36995.4	18.56	mg/L	0.238	92.81	mg/L	1.192	1.28%
Mg 279.077†	45990.2	31.15	mg/L	0.670	155.7	mg/L	3.35	2.15%
Mn 257.610†	184132.4	5.090	mg/L	0.0628	25.45	mg/L	0.314	1.23%
Mo 202.031†	89.0	0.00392	mg/L	0.000008	0.01962	mg/L	0.000039	0.20%
Na 589.592†	142277.3	11.17	mg/L	0.154	55.83	mg/L	0.771	1.38%
Na 330.237†	312.8	10.72	mg/L	0.349	53.61	mg/L	1.747	3.26%
Ni 231.604†	2490.2	0.6033	mg/L	0.01317	3.017	mg/L	0.0659	2.18%
Pb 220.353†	32344.9	4.055	mg/L	0.0845	20.27	mg/L	0.422	2.08%
Sb 206.836†	52.6	0.01040	mg/L	0.002690	0.05198	mg/L	0.013452	25.88%
Se 196.026†	3222.2	2.164	mg/L	0.0432	10.82	mg/L	0.216	2.00%
Si 288.158†	4106.6	1.914	mg/L	0.0473	9.570	mg/L	0.2366	2.47%
Sn 189.927†	-31.1	-0.00206	mg/L	0.000930	-0.01028	mg/L	0.004652	45.26%
Sr 421.552†	940232.6	1.004	mg/L	0.0138	5.019	mg/L	0.0692	1.38%
Ti 334.903†	51401.9	2.464	mg/L	0.0319	12.32	mg/L	0.160	1.30%
Tl 190.801†	5259.7	2.060	mg/L	0.0429	10.30	mg/L	0.214	2.08%
V 292.402†	84340.0	0.6435	mg/L	0.01957	3.217	mg/L	0.0978	3.04%
Zn 206.200†	8928.5	2.203	mg/L	0.0469	11.01	mg/L	0.234	2.13%

Sequence No.: 24
Sample ID: VR33 MB1SPK SWC

Autosampler Location: 353
Date Collected: 11/16/2012 3:03:16 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR33 MB1SPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2171374.1	96.20	%	2.033				2.11%
ScR 361.383	274831.1	96.12	%	2.171				2.26%
Ag 328.068†	96457.9	0.5460	mg/L	0.00737	1.092	mg/L	0.0147	1.35%
Al 308.215†	3870.9	2.166	mg/L	0.0405	4.331	mg/L	0.0810	1.87%
As 188.979†	3971.9	2.102	mg/L	0.0437	4.204	mg/L	0.0875	2.08%
B 249.677†	6.4	-0.00031	mg/L	0.000077	-0.00062	mg/L	0.000153	24.77%
Ba 233.527†	9879.0	2.177	mg/L	0.0394	4.355	mg/L	0.0788	1.81%
Be 313.042†	345105.1	0.5188	mg/L	0.01265	1.038	mg/L	0.0253	2.44%
Ca 317.933†	147987.5	10.42	mg/L	0.251	20.84	mg/L	0.502	2.41%
Cd 228.802†	18322.4	0.5648	mg/L	0.00789	1.130	mg/L	0.0158	1.40%
Co 228.616†	19366.7	0.5490	mg/L	0.00772	1.098	mg/L	0.0154	1.41%
Cr 267.716†	3419.2	0.5493	mg/L	0.01036	1.099	mg/L	0.0207	1.89%
Cu 324.752†	138504.2	0.5327	mg/L	0.01286	1.065	mg/L	0.0257	2.41%
Fe 273.955†	2916.5	2.221	mg/L	0.0481	4.441	mg/L	0.0962	2.17%
K 766.490†	20975.3	10.52	mg/L	0.317	21.05	mg/L	0.633	3.01%
Mg 279.077†	16091.8	10.91	mg/L	0.212	21.83	mg/L	0.424	1.94%
Mn 257.610†	19923.2	0.5511	mg/L	0.01087	1.102	mg/L	0.0217	1.97%
Mo 202.031†	23.2	0.00101	mg/L	0.000208	0.00203	mg/L	0.000416	20.50%
Na 589.592†	129121.7	10.13	mg/L	0.258	20.27	mg/L	0.517	2.55%
Na 330.237†	300.6	10.29	mg/L	0.211	20.58	mg/L	0.422	2.05%
Ni 231.604†	2286.1	0.5538	mg/L	0.00961	1.108	mg/L	0.0192	1.74%
Pb 220.353†	16752.9	2.095	mg/L	0.0331	4.189	mg/L	0.0661	1.58%
Sb 206.836†	23.8	0.00148	mg/L	0.000629	0.00297	mg/L	0.001258	42.37%
Se 196.026†	3130.4	2.102	mg/L	0.0437	4.204	mg/L	0.0875	2.08%
Si 288.158†	2.4	0.00453	mg/L	0.002821	0.00906	mg/L	0.005643	62.25%
Sn 189.927†	-23.8	-0.00473	mg/L	0.000530	-0.00947	mg/L	0.001060	11.19%
Sr 421.552†	480735.9	0.5132	mg/L	0.01334	1.026	mg/L	0.0267	2.60%
Ti 334.903†	44.9	0.00155	mg/L	0.000232	0.00309	mg/L	0.000464	14.99%
Tl 190.801†	5273.4	2.058	mg/L	0.0412	4.115	mg/L	0.0825	2.00%
V 292.402†	71334.2	0.5471	mg/L	0.00729	1.094	mg/L	0.0146	1.33%
Zn 206.200†	2103.8	0.5190	mg/L	0.00928	1.038	mg/L	0.0186	1.79%

Sequence No.: 25
Sample ID: CV 10

Autosampler Location: 7
Date Collected: 11/16/2012 3:07:17 PM
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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2055025.7	91.04	%	2.792				3.07%
ScR 361.383	261665.3	91.51	%	1.381				1.51%
Ag 328.068†	191730.1	1.085	mg/L	0.0335	1.085	mg/L	0.0335	3.08%
Al 308.215†	4066.5	2.245	mg/L	0.0445	2.245	mg/L	0.0445	1.98%
As 188.979†	4099.2	2.197	mg/L	0.0743	2.197	mg/L	0.0743	3.38%
B 249.677†	8397.5	1.071	mg/L	0.0194	1.071	mg/L	0.0194	1.81%
Ba 233.527†	5130.9	1.131	mg/L	0.0189	1.131	mg/L	0.0189	1.67%
Be 313.042†	704411.6	1.059	mg/L	0.0245	1.059	mg/L	0.0245	2.32%
Ca 317.933†	30605.7	2.155	mg/L	0.0465	2.155	mg/L	0.0465	2.16%
Cd 228.802†	37055.5	1.156	mg/L	0.0353	1.156	mg/L	0.0353	3.06%
Co 228.616†	39931.6	1.130	mg/L	0.0342	1.130	mg/L	0.0342	3.02%
Cr 267.716†	7111.9	1.144	mg/L	0.0196	1.144	mg/L	0.0196	1.72%
Cu 324.752†	292706.7	1.125	mg/L	0.0346	1.125	mg/L	0.0346	3.08%
Fe 273.955†	3045.8	2.315	mg/L	0.0393	2.315	mg/L	0.0393	1.70%
K 766.490†	44016.9	22.08	mg/L	0.500	22.08	mg/L	0.500	2.26%
Mg 279.077†	3321.3	2.260	mg/L	0.0384	2.260	mg/L	0.0384	1.70%
Mn 257.610†	40215.4	1.112	mg/L	0.0259	1.112	mg/L	0.0259	2.33%
Mo 202.031†	23113.1	1.152	mg/L	0.0381	1.152	mg/L	0.0381	3.31%
Na 589.592†	689160.7	54.09	mg/L	1.309	54.09	mg/L	1.309	2.42%
Na 330.237†	1648.0	57.24	mg/L	1.033	57.24	mg/L	1.033	1.80%
Ni 231.604†	4433.3	1.076	mg/L	0.0174	1.076	mg/L	0.0174	1.62%
Pb 220.353†	17944.9	2.244	mg/L	0.0750	2.244	mg/L	0.0750	3.34%
Sb 206.836†	7743.5	2.367	mg/L	0.0820	2.367	mg/L	0.0820	3.46%
Se 196.026†	3230.3	2.168	mg/L	0.0718	2.168	mg/L	0.0718	3.31%
Si 288.158†	4989.8	2.318	mg/L	0.0510	2.318	mg/L	0.0510	2.20%
Sn 189.927†	4430.3	1.138	mg/L	0.0388	1.138	mg/L	0.0388	3.41%
Sr 421.552†	991814.1	1.059	mg/L	0.0241	1.059	mg/L	0.0241	2.28%
Ti 334.903†	23528.3	1.128	mg/L	0.0253	1.128	mg/L	0.0253	2.25%
Tl 190.801†	5552.4	2.163	mg/L	0.0759	2.163	mg/L	0.0759	3.51%
V 292.402†	146501.5	1.124	mg/L	0.0343	1.124	mg/L	0.0343	3.05%
Zn 206.200†	4501.3	1.110	mg/L	0.0188	1.110	mg/L	0.0188	1.70%

Sequence No.: 26
Sample ID: CB 10
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/16/2012 3:12:09 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	2175282.2	96.37	%	0.499				0.52%
ScR 361.383	269291.1	94.18	%	1.388				1.47%
Ag 328.068†	42.6	0.00024	mg/L	0.000194	0.00024	mg/L	0.000194	80.56%
Al 308.215†	61.2	0.03435	mg/L	0.015204	0.03435	mg/L	0.015204	44.26%
As 188.979†	-1.4	-0.00071	mg/L	0.001499	-0.00071	mg/L	0.001499	211.70%
B 249.677†	8.0	0.00102	mg/L	0.000142	0.00102	mg/L	0.000142	13.91%
Ba 233.527†	0.2	0.00004	mg/L	0.000226	0.00004	mg/L	0.000226	641.23%
Be 313.042†	256.6	0.00039	mg/L	0.000075	0.00039	mg/L	0.000075	19.46%
Ca 317.933†	99.2	0.00699	mg/L	0.001601	0.00699	mg/L	0.001601	22.92%
Cd 228.802†	-3.5	-0.00010	mg/L	0.000127	-0.00010	mg/L	0.000127	122.33%
Co 228.616†	-8.3	-0.00024	mg/L	0.000094	-0.00024	mg/L	0.000094	39.63%
Cr 267.716†	-16.2	-0.00261	mg/L	0.000392	-0.00261	mg/L	0.000392	15.01%
Cu 324.752†	49.4	0.00019	mg/L	0.000143	0.00019	mg/L	0.000143	75.32%
Fe 273.955†	18.6	0.01422	mg/L	0.002404	0.01422	mg/L	0.002404	16.91%
K 766.490†	50.7	0.02545	mg/L	0.018499	0.02545	mg/L	0.018499	72.69%
Mg 279.077†	16.9	0.01148	mg/L	0.005517	0.01148	mg/L	0.005517	48.04%
Mn 257.610†	32.3	0.00089	mg/L	0.000095	0.00089	mg/L	0.000095	10.62%
Mo 202.031†	13.8	0.00069	mg/L	0.000200	0.00069	mg/L	0.000200	29.05%
Na 589.592†	110.9	0.00870	mg/L	0.002901	0.00870	mg/L	0.002901	33.33%
Na 330.237†	-35.9	-1.249	mg/L	0.5677	-1.249	mg/L	0.5677	45.45%
Ni 231.604†	3.4	0.00083	mg/L	0.001081	0.00083	mg/L	0.001081	130.05%
Pb 220.353†	11.3	0.00142	mg/L	0.000222	0.00142	mg/L	0.000222	15.62%
Sb 206.836†	13.9	0.00427	mg/L	0.001452	0.00427	mg/L	0.001452	34.01%
Se 196.026†	4.2	0.00282	mg/L	0.003440	0.00282	mg/L	0.003440	122.00%
Si 288.158†	6.3	0.00291	mg/L	0.001165	0.00291	mg/L	0.001165	39.98%
Sn 189.927†	-2.6	-0.00066	mg/L	0.000734	-0.00066	mg/L	0.000734	110.79%
Sr 421.552†	296.3	0.00032	mg/L	0.000076	0.00032	mg/L	0.000076	24.10%
Ti 334.903†	18.4	0.00088	mg/L	0.000893	0.00088	mg/L	0.000893	100.98%
Tl 190.801†	2.4	0.00094	mg/L	0.001042	0.00094	mg/L	0.001042	111.11%
V 292.402†	-9.9	-0.00009	mg/L	0.000113	-0.00009	mg/L	0.000113	129.39%
Zn 206.200†	1.5	0.00036	mg/L	0.000684	0.00036	mg/L	0.000684	189.09%

User canceled analysis.

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Analysis Begun

Start Time: 11/16/2012 3:17:17 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1116.sif
Batch ID:
Results Data Set: I2121116
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1
Sample ID: CV 11
Autosampler Location: 7
Date Collected: 11/16/2012 3:17:19 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	2205026.8	97.69	%	0.284				0.29%
ScR 361.383	272599.1	95.34	%	1.404				1.47%
Ag 328.068†	176087.0	0.9967	mg/L	0.00337	0.9967	mg/L	0.00337	0.34%
Al 308.215†	3808.9	2.103	mg/L	0.0311	2.103	mg/L	0.0311	1.48%
As 188.979†	3802.1	2.040	mg/L	0.0104	2.040	mg/L	0.0104	0.51%
B 249.677†	7846.6	1.000	mg/L	0.0077	1.000	mg/L	0.0077	0.77%
Ba 233.527†	4799.5	1.057	mg/L	0.0099	1.057	mg/L	0.0099	0.93%
Be 313.042†	675105.6	1.015	mg/L	0.0226	1.015	mg/L	0.0226	2.23%
Ca 317.933†	30281.1	2.132	mg/L	0.0182	2.132	mg/L	0.0182	0.85%
Cd 228.802†	34067.4	1.063	mg/L	0.0036	1.063	mg/L	0.0036	0.34%
Co 228.616†	36804.5	1.042	mg/L	0.0037	1.042	mg/L	0.0037	0.35%
Cr 267.716†	6627.2	1.066	mg/L	0.0064	1.066	mg/L	0.0064	0.60%
Cu 324.752†	268747.6	1.033	mg/L	0.0036	1.033	mg/L	0.0036	0.35%
Fe 273.955†	2839.6	2.159	mg/L	0.0239	2.159	mg/L	0.0239	1.11%
K 766.490†	42213.9	21.18	mg/L	0.438	21.18	mg/L	0.438	2.07%
Mg 279.077†	3080.5	2.096	mg/L	0.0277	2.096	mg/L	0.0277	1.32%
Mn 257.610†	39317.4	1.087	mg/L	0.0127	1.087	mg/L	0.0127	1.17%
Mo 202.031†	21334.1	1.063	mg/L	0.0072	1.063	mg/L	0.0072	0.68%
Na 589.592†	661887.1	51.95	mg/L	1.089	51.95	mg/L	1.089	2.10%
Na 330.237†	1538.3	53.44	mg/L	0.370	53.44	mg/L	0.370	0.69%
Ni 231.604†	4172.5	1.013	mg/L	0.0079	1.013	mg/L	0.0079	0.78%
Pb 220.353†	16580.1	2.073	mg/L	0.0125	2.073	mg/L	0.0125	0.60%
Sb 206.836†	7154.3	2.187	mg/L	0.0134	2.187	mg/L	0.0134	0.61%
Se 196.026†	2995.3	2.011	mg/L	0.0045	2.011	mg/L	0.0045	0.22%
Si 288.158†	4679.7	2.174	mg/L	0.0196	2.174	mg/L	0.0196	0.90%
Sn 189.927†	4095.3	1.052	mg/L	0.0056	1.052	mg/L	0.0056	0.53%
Sr 421.552†	951999.3	1.016	mg/L	0.0225	1.016	mg/L	0.0225	2.21%
Ti 334.903†	23080.8	1.106	mg/L	0.0116	1.106	mg/L	0.0116	1.04%
Tl 190.801†	5143.2	2.003	mg/L	0.0138	2.003	mg/L	0.0138	0.69%
V 292.402†	134695.1	1.033	mg/L	0.0027	1.033	mg/L	0.0027	0.26%
Zn 206.200†	4209.8	1.038	mg/L	0.0114	1.038	mg/L	0.0114	1.10%

Sequence No.: 2
Sample ID: CB 11

Autosampler Location: 1
Date Collected: 11/16/2012 3:21:25 PM
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	2205990.5	97.73	%	0.524				0.54%
ScR 361.383	282658.6	98.86	%	0.999				1.01%
Ag 328.068†	80.4	0.00046	mg/L	0.000091	0.00046	mg/L	0.000091	19.98%
Al 308.215†	32.9	0.01847	mg/L	0.003273	0.01847	mg/L	0.003273	17.72%
As 188.979†	-0.2	-0.00006	mg/L	0.002036	-0.00006	mg/L	0.002036	>999.9%
B 249.677†	10.2	0.00130	mg/L	0.001198	0.00130	mg/L	0.001198	92.13%
Ba 233.527†	0.2	0.00004	mg/L	0.000486	0.00004	mg/L	0.000486	>999.9%
Be 313.042†	246.5	0.00037	mg/L	0.000039	0.00037	mg/L	0.000039	10.47%
Ca 317.933†	88.0	0.00619	mg/L	0.000185	0.00619	mg/L	0.000185	2.98%
Cd 228.802†	-4.3	-0.00014	mg/L	0.000052	-0.00014	mg/L	0.000052	37.80%
Co 228.616†	-7.8	-0.00022	mg/L	0.000129	-0.00022	mg/L	0.000129	57.82%
Cr 267.716†	-6.5	-0.00105	mg/L	0.000598	-0.00105	mg/L	0.000598	56.73%
Cu 324.752†	92.6	0.00036	mg/L	0.000061	0.00036	mg/L	0.000061	17.27%
Fe 273.955†	16.2	0.01239	mg/L	0.001815	0.01239	mg/L	0.001815	14.65%
K 766.490†	-12.4	-0.00621	mg/L	0.019972	-0.00621	mg/L	0.019972	321.49%
Mg 279.077†	11.7	0.00792	mg/L	0.002414	0.00792	mg/L	0.002414	30.47%
Mn 257.610†	19.7	0.00054	mg/L	0.000171	0.00054	mg/L	0.000171	31.49%
Mo 202.031†	16.6	0.00083	mg/L	0.000292	0.00083	mg/L	0.000292	35.21%
Na 589.592†	123.6	0.00970	mg/L	0.002894	0.00970	mg/L	0.002894	29.82%
Na 330.237†	-11.2	-0.3904	mg/L	0.11278	-0.3904	mg/L	0.11278	28.89%
Ni 231.604†	-5.2	-0.00126	mg/L	0.000973	-0.00126	mg/L	0.000973	77.51%
Pb 220.353†	10.3	0.00129	mg/L	0.000551	0.00129	mg/L	0.000551	42.74%
Sb 206.836†	7.7	0.00236	mg/L	0.002133	0.00236	mg/L	0.002133	90.21%
Se 196.026†	5.2	0.00352	mg/L	0.002450	0.00352	mg/L	0.002450	69.67%
Si 288.158†	4.9	0.00229	mg/L	0.002917	0.00229	mg/L	0.002917	127.24%
Sn 189.927†	-2.9	-0.00073	mg/L	0.001055	-0.00073	mg/L	0.001055	144.00%
Sr 421.552†	331.2	0.00035	mg/L	0.000007	0.00035	mg/L	0.000007	2.12%
Ti 334.903†	25.9	0.00124	mg/L	0.000343	0.00124	mg/L	0.000343	27.62%
Tl 190.801†	7.0	0.00274	mg/L	0.002116	0.00274	mg/L	0.002116	77.25%
V 292.402†	-1.8	-0.00002	mg/L	0.000081	-0.00002	mg/L	0.000081	427.06%
Zn 206.200†	-1.7	-0.00041	mg/L	0.000299	-0.00041	mg/L	0.000299	72.41%

User canceled analysis.

Analysis Begun

Start Time: 11/16/2012 3:27:02 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/16/2012 7:13:09 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1116.sif
Batch ID:
Results Data Set: I2121116
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VR33 E SWC
Autosampler Location: 354
Date Collected: 11/16/2012 3:27:03 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2192953.1	97.15	%	0.867				0.89%
ScR 361.383	285480.3	99.84	%	1.018				1.02%
Ag 328.068†	-67.9	-0.00034	mg/L	0.000223	-0.00171	mg/L	0.001115	65.30%
Al 308.215†	116911.9	65.64	mg/L	0.609	328.2	mg/L	3.04	0.93%
As 188.979†	31.7	0.08177	mg/L	0.001483	0.4089	mg/L	0.00742	1.81%
B 249.677†	52.7	0.00661	mg/L	0.000896	0.03304	mg/L	0.004482	13.57%
Ba 233.527†	5816.7	1.264	mg/L	0.0172	6.322	mg/L	0.0858	1.36%
Be 313.042†	1667.7	0.00245	mg/L	0.000041	0.01225	mg/L	0.000203	1.66%
Ca 317.933†	327589.0	23.06	mg/L	0.264	115.3	mg/L	1.32	1.15%
Cd 228.802†	985.6	0.03005	mg/L	0.000648	0.1503	mg/L	0.00324	2.16%
Co 228.616†	2027.7	0.05150	mg/L	0.000671	0.2575	mg/L	0.00335	1.30%
Cr 267.716†	895.9	0.1457	mg/L	0.00143	0.7287	mg/L	0.00714	0.98%
Cu 324.752†	32206.7	0.1280	mg/L	0.00078	0.6398	mg/L	0.00391	0.61%
Fe 273.955†	141674.9	108.1	mg/L	1.20	540.3	mg/L	6.00	1.11%
K 766.490†	24541.9	12.31	mg/L	0.089	61.56	mg/L	0.446	0.72%
Mg 279.077†	35208.8	23.82	mg/L	0.284	119.1	mg/L	1.42	1.19%
Mn 257.610†	153157.4	4.234	mg/L	0.0416	21.17	mg/L	0.208	0.98%
Mo 202.031†	70.9	0.00328	mg/L	0.000128	0.01638	mg/L	0.000641	3.91%
Na 589.592†	5658.8	0.4441	mg/L	0.00545	2.221	mg/L	0.0272	1.23%
Na 330.237†	-8.3	-0.1790	mg/L	0.08433	-0.8950	mg/L	0.42166	47.11%
Ni 231.604†	401.8	0.09751	mg/L	0.000756	0.4876	mg/L	0.00378	0.78%
Pb 220.353†	8709.3	1.100	mg/L	0.0115	5.499	mg/L	0.0574	1.04%
Sb 206.836†	32.7	0.00945	mg/L	0.001535	0.04727	mg/L	0.007673	16.23%
Se 196.026†	8.4	0.00552	mg/L	0.001830	0.02759	mg/L	0.009151	33.17%
Si 288.158†	2633.1	1.226	mg/L	0.0091	6.132	mg/L	0.0457	0.74%
Sn 189.927†	-31.7	-0.00492	mg/L	0.001017	-0.02458	mg/L	0.005083	20.68%
Sr 421.552†	204028.1	0.2178	mg/L	0.00178	1.089	mg/L	0.0089	0.82%
Ti 334.903†	48407.2	2.322	mg/L	0.0244	11.61	mg/L	0.122	1.05%
Tl 190.801†	-24.0	0.00129	mg/L	0.003075	0.00644	mg/L	0.015377	238.78%
V 292.402†	19516.2	0.1452	mg/L	0.00063	0.7260	mg/L	0.00316	0.44%
Zn 206.200†	5140.3	1.268	mg/L	0.0154	6.340	mg/L	0.0772	1.22%

Sequence No.: 2
Sample ID: VR33 F SWC

Autosampler Location: 355
Date Collected: 11/16/2012 3:31:05 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 F SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR33 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2162550.8	95.81	%	0.881				0.92%
ScR 361.383	280731.6	98.18	%	2.130				2.17%
Ag 328.068†	-304.8	-0.00168	mg/L	0.000052	-0.00841	mg/L	0.000258	3.07%
Al 308.215†	123974.1	69.61	mg/L	1.960	348.0	mg/L	9.80	2.82%
As 188.979†	-33.5	0.05652	mg/L	0.003227	0.2826	mg/L	0.01614	5.71%
B 249.677†	56.8	0.00713	mg/L	0.000964	0.03564	mg/L	0.004821	13.53%
Ba 233.527†	5706.2	1.240	mg/L	0.0236	6.200	mg/L	0.1178	1.90%
Be 313.042†	1614.7	0.00237	mg/L	0.000076	0.01183	mg/L	0.000382	3.23%
Ca 317.933†	276299.3	19.45	mg/L	0.573	97.26	mg/L	2.867	2.95%
Cd 228.802†	345.8	0.01007	mg/L	0.000367	0.05037	mg/L	0.001837	3.65%
Co 228.616†	2051.8	0.05155	mg/L	0.000705	0.2578	mg/L	0.00353	1.37%
Cr 267.716†	862.5	0.1406	mg/L	0.00261	0.7028	mg/L	0.01307	1.86%
Cu 324.752†	30082.0	0.1198	mg/L	0.00121	0.5989	mg/L	0.00605	1.01%
Fe 273.955†	143362.5	109.3	mg/L	2.73	546.7	mg/L	13.63	2.49%
K 766.490†	23335.8	11.71	mg/L	0.340	58.54	mg/L	1.698	2.90%
Mg 279.077†	34307.1	23.21	mg/L	0.677	116.0	mg/L	3.39	2.92%
Mn 257.610†	142265.7	3.933	mg/L	0.1003	19.66	mg/L	0.501	2.55%
Mo 202.031†	63.9	0.00296	mg/L	0.000251	0.01482	mg/L	0.001253	8.45%
Na 589.592†	7038.2	0.5524	mg/L	0.01984	2.762	mg/L	0.0992	3.59%
Na 330.237†	-18.8	-0.2617	mg/L	0.08952	-1.309	mg/L	0.4476	34.20%
Ni 231.604†	409.4	0.09934	mg/L	0.002616	0.4967	mg/L	0.01308	2.63%
Pb 220.353†	3619.7	0.4646	mg/L	0.00437	2.323	mg/L	0.0219	0.94%
Sb 206.836†	26.3	0.00772	mg/L	0.002889	0.03861	mg/L	0.014447	37.42%
Se 196.026†	7.3	0.00477	mg/L	0.004039	0.02384	mg/L	0.020194	84.69%
Si 288.158†	2356.0	1.098	mg/L	0.0263	5.488	mg/L	0.1314	2.39%
Sn 189.927†	-26.6	-0.00402	mg/L	0.001034	-0.02009	mg/L	0.005171	25.73%
Sr 421.552†	179489.5	0.1916	mg/L	0.00530	0.9580	mg/L	0.02652	2.77%
Ti 334.903†	55019.3	2.639	mg/L	0.0728	13.19	mg/L	0.364	2.76%
Tl 190.801†	-27.0	0.00025	mg/L	0.000664	0.00124	mg/L	0.003322	267.21%
V 292.402†	19913.7	0.1479	mg/L	0.00180	0.7397	mg/L	0.00901	1.22%
Zn 206.200†	2579.9	0.6364	mg/L	0.01275	3.182	mg/L	0.0637	2.00%

Sequence No.: 3
Sample ID: VR33 G SWC

Autosampler Location: 356
Date Collected: 11/16/2012 3:35:06 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 G SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2149000.4	95.21	%	2.096				2.20%
ScR 361.383	277546.2	97.07	%	1.176				1.21%
Ag 328.068†	-368.3	-0.00203	mg/L	0.000277	-0.01015	mg/L	0.001387	13.67%
Al 308.215†	157873.8	88.64	mg/L	1.322	443.2	mg/L	6.61	1.49%
As 188.979†	-164.0	0.02536	mg/L	0.002497	0.1268	mg/L	0.01248	9.84%
B 249.677†	37.5	0.00467	mg/L	0.000465	0.02335	mg/L	0.002325	9.96%
Ba 233.527†	3839.6	0.8283	mg/L	0.01485	4.142	mg/L	0.0743	1.79%
Be 313.042†	1728.2	0.00251	mg/L	0.000075	0.01257	mg/L	0.000377	3.00%
Ca 317.933†	191883.2	13.51	mg/L	0.196	67.55	mg/L	0.982	1.45%
Cd 228.802†	39.2	0.00084	mg/L	0.000140	0.00421	mg/L	0.000699	16.61%
Co 228.616†	2060.9	0.04930	mg/L	0.001090	0.2465	mg/L	0.00545	2.21%
Cr 267.716†	884.3	0.1442	mg/L	0.00157	0.7209	mg/L	0.00785	1.09%
Cu 324.752†	25479.5	0.1018	mg/L	0.00237	0.5092	mg/L	0.01184	2.33%
Fe 273.955†	144334.2	110.1	mg/L	1.71	550.4	mg/L	8.53	1.55%
K 766.490†	20327.2	10.20	mg/L	0.091	50.99	mg/L	0.453	0.89%
Mg 279.077†	36122.6	24.44	mg/L	0.329	122.2	mg/L	1.65	1.35%
Mn 257.610†	88408.9	2.444	mg/L	0.0401	12.22	mg/L	0.200	1.64%
Mo 202.031†	44.4	0.00206	mg/L	0.000144	0.01030	mg/L	0.000722	7.01%
Na 589.592†	8363.1	0.6564	mg/L	0.01040	3.282	mg/L	0.0520	1.58%
Na 330.237†	-36.4	-0.4513	mg/L	0.23420	-2.257	mg/L	1.1710	51.89%
Ni 231.604†	397.5	0.09647	mg/L	0.000704	0.4823	mg/L	0.00352	0.73%
Pb 220.353†	379.3	0.06422	mg/L	0.001862	0.3211	mg/L	0.00931	2.90%
Sb 206.836†	18.7	0.00606	mg/L	0.001628	0.03029	mg/L	0.008142	26.88%
Se 196.026†	10.4	0.00682	mg/L	0.005257	0.03412	mg/L	0.026284	77.04%
Si 288.158†	3345.7	1.557	mg/L	0.0221	7.787	mg/L	0.1103	1.42%
Sn 189.927†	-29.1	-0.00522	mg/L	0.000608	-0.02612	mg/L	0.003038	11.63%
Sr 421.552†	118942.3	0.1270	mg/L	0.00194	0.6349	mg/L	0.00972	1.53%
Ti 334.903†	82362.8	3.951	mg/L	0.0625	19.76	mg/L	0.312	1.58%
Tl 190.801†	-29.5	-0.00079	mg/L	0.002695	-0.00397	mg/L	0.013473	339.07%
V 292.402†	24781.7	0.1841	mg/L	0.00397	0.9207	mg/L	0.01986	2.16%
Zn 206.200†	1040.2	0.2566	mg/L	0.00432	1.283	mg/L	0.0216	1.68%

Sequence No.: 4
Sample ID: VR33 H SWC

Autosampler Location: 357
Date Collected: 11/16/2012 3:39:07 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 H SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2160590.0	95.72	%	0.801				0.84%
ScR 361.383	274029.0	95.84	%	1.027				1.07%
Ag 328.068†	-312.3	-0.00172	mg/L	0.000135	-0.00858	mg/L	0.000675	7.87%
Al 308.215†	124374.0	69.83	mg/L	0.719	349.1	mg/L	3.59	1.03%
As 188.979†	-140.0	0.02483	mg/L	0.003095	0.1242	mg/L	0.01547	12.46%
B 249.677†	21.2	0.00262	mg/L	0.000402	0.01309	mg/L	0.002009	15.34%
Ba 233.527†	3463.2	0.7475	mg/L	0.00452	3.737	mg/L	0.0226	0.60%
Be 313.042†	1463.3	0.00212	mg/L	0.000031	0.01061	mg/L	0.000155	1.46%
Ca 317.933†	204587.4	14.40	mg/L	0.118	72.02	mg/L	0.591	0.82%
Cd 228.802†	36.0	0.00079	mg/L	0.000134	0.00394	mg/L	0.000669	16.98%
Co 228.616†	1714.7	0.04054	mg/L	0.000671	0.2027	mg/L	0.00335	1.65%
Cr 267.716†	1006.7	0.1636	mg/L	0.00129	0.8179	mg/L	0.00645	0.79%
Cu 324.752†	21326.1	0.08540	mg/L	0.001115	0.4270	mg/L	0.00557	1.31%
Fe 273.955†	127419.5	97.18	mg/L	1.193	485.9	mg/L	5.97	1.23%
K 766.490†	18651.1	9.358	mg/L	0.0903	46.79	mg/L	0.451	0.96%
Mg 279.077†	33540.3	22.69	mg/L	0.178	113.5	mg/L	0.89	0.78%
Mn 257.610†	64351.1	1.779	mg/L	0.0210	8.895	mg/L	0.1049	1.18%
Mo 202.031†	116.0	0.00562	mg/L	0.000212	0.02809	mg/L	0.001058	3.77%
Na 589.592†	8126.6	0.6378	mg/L	0.00757	3.189	mg/L	0.0379	1.19%
Na 330.237†	-32.3	-0.3907	mg/L	0.08328	-1.954	mg/L	0.4164	21.31%
Ni 231.604†	426.0	0.1034	mg/L	0.00102	0.5169	mg/L	0.00509	0.98%
Pb 220.353†	306.7	0.05122	mg/L	0.001091	0.2561	mg/L	0.00545	2.13%
Sb 206.836†	16.1	0.00473	mg/L	0.002050	0.02365	mg/L	0.010251	43.35%
Se 196.026†	6.1	0.00398	mg/L	0.001601	0.01989	mg/L	0.008005	40.25%
Si 288.158†	2868.7	1.336	mg/L	0.0132	6.678	mg/L	0.0659	0.99%
Sn 189.927†	-31.7	-0.00584	mg/L	0.000557	-0.02922	mg/L	0.002784	9.53%
Sr 421.552†	120004.4	0.1281	mg/L	0.00127	0.6405	mg/L	0.00635	0.99%
Ti 334.903†	72800.9	3.492	mg/L	0.0340	17.46	mg/L	0.170	0.97%
Tl 190.801†	-22.0	0.00084	mg/L	0.002591	0.00422	mg/L	0.012957	307.34%
V 292.402†	23274.8	0.1733	mg/L	0.00207	0.8666	mg/L	0.01033	1.19%
Zn 206.200†	775.6	0.1913	mg/L	0.00094	0.9566	mg/L	0.00472	0.49%

Sequence No.: 5
Sample ID: VR33 I SWC

Autosampler Location: 358
Date Collected: 11/16/2012 3:43:08 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2144634.0	95.01	%	0.784				0.83%
ScR 361.383	276532.6	96.71	%	3.570				3.69%
Ag 328.068†	-173.5	-0.00093	mg/L	0.000219	-0.00466	mg/L	0.001097	23.52%
Al 308.215†	104236.3	58.52	mg/L	2.171	292.6	mg/L	10.85	3.71%
As 188.979†	-84.5	0.04252	mg/L	0.005135	0.2126	mg/L	0.02567	12.07%
B 249.677†	116.7	0.01480	mg/L	0.000920	0.07401	mg/L	0.004598	6.21%
Ba 233.527†	3104.4	0.6700	mg/L	0.02386	3.350	mg/L	0.1193	3.56%
Be 313.042†	1459.0	0.00212	mg/L	0.000130	0.01061	mg/L	0.000648	6.11%
Ca 317.933†	422815.7	29.77	mg/L	1.074	148.8	mg/L	5.37	3.61%
Cd 228.802†	490.5	0.01500	mg/L	0.000379	0.07499	mg/L	0.001893	2.52%
Co 228.616†	1543.9	0.03657	mg/L	0.000480	0.1829	mg/L	0.00240	1.31%
Cr 267.716†	651.4	0.1059	mg/L	0.00307	0.5293	mg/L	0.01535	2.90%
Cu 324.752†	24014.2	0.09538	mg/L	0.000581	0.4769	mg/L	0.00291	0.61%
Fe 273.955†	114185.6	87.09	mg/L	3.042	435.4	mg/L	15.21	3.49%
K 766.490†	27936.0	14.02	mg/L	0.571	70.08	mg/L	2.855	4.07%
Mg 279.077†	32017.0	21.67	mg/L	0.807	108.3	mg/L	4.04	3.73%
Mn 257.610†	82839.9	2.290	mg/L	0.0787	11.45	mg/L	0.393	3.44%
Mo 202.031†	63.3	0.00283	mg/L	0.000333	0.01414	mg/L	0.001666	11.79%
Na 589.592†	8089.0	0.6349	mg/L	0.02137	3.174	mg/L	0.1068	3.37%
Na 330.237†	-19.1	-0.2087	mg/L	0.11961	-1.043	mg/L	0.5981	57.33%
Ni 231.604†	266.8	0.06473	mg/L	0.000922	0.3237	mg/L	0.00461	1.42%
Pb 220.353†	4375.5	0.5573	mg/L	0.00520	2.787	mg/L	0.0260	0.93%
Sb 206.836†	15.3	0.00511	mg/L	0.000766	0.02557	mg/L	0.003828	14.97%
Se 196.026†	2.9	0.00184	mg/L	0.005706	0.00920	mg/L	0.028529	310.26%
Si 288.158†	2682.1	1.249	mg/L	0.0445	6.244	mg/L	0.2225	3.56%
Sn 189.927†	-42.1	-0.00666	mg/L	0.000643	-0.03328	mg/L	0.003213	9.65%
Sr 421.552†	261012.8	0.2786	mg/L	0.00999	1.393	mg/L	0.0500	3.59%
Ti 334.903†	64881.4	3.112	mg/L	0.1148	15.56	mg/L	0.574	3.69%
Tl 190.801†	-20.0	0.00061	mg/L	0.000894	0.00307	mg/L	0.004470	145.59%
V 292.402†	22503.2	0.1678	mg/L	0.00114	0.8392	mg/L	0.00568	0.68%
Zn 206.200†	3121.7	0.7701	mg/L	0.02808	3.850	mg/L	0.1404	3.65%

Sequence No.: 6
Sample ID: VR33 J SWC

Autosampler Location: 359
Date Collected: 11/16/2012 3:47:09 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 J SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2187581.6	96.92	%	0.754				0.78%
ScR 361.383	280519.8	98.11	%	1.353				1.38%
Ag 328.068†	-91.6	-0.00045	mg/L	0.000027	-0.00227	mg/L	0.000137	6.05%
Al 308.215†	111572.9	62.64	mg/L	1.249	313.2	mg/L	6.24	1.99%
As 188.979†	-20.0	0.09814	mg/L	0.002726	0.4907	mg/L	0.01363	2.78%
B 249.677†	44.8	0.00560	mg/L	0.001049	0.02799	mg/L	0.005247	18.74%
Ba 233.527†	2641.4	0.5658	mg/L	0.00686	2.829	mg/L	0.0343	1.21%
Be 313.042†	1522.7	0.00220	mg/L	0.000075	0.01099	mg/L	0.000377	3.43%
Ca 317.933†	262712.6	18.50	mg/L	0.375	92.48	mg/L	1.877	2.03%
Cd 228.802†	1487.2	0.04611	mg/L	0.000364	0.2305	mg/L	0.00182	0.79%
Co 228.616†	2070.1	0.04993	mg/L	0.000476	0.2496	mg/L	0.00238	0.95%
Cr 267.716†	827.5	0.1339	mg/L	0.00150	0.6694	mg/L	0.00751	1.12%
Cu 324.752†	43903.8	0.1722	mg/L	0.00170	0.8610	mg/L	0.00851	0.99%
Fe 273.955†	131046.4	99.95	mg/L	2.398	499.7	mg/L	11.99	2.40%
K 766.490†	23597.7	11.84	mg/L	0.200	59.20	mg/L	0.999	1.69%
Mg 279.077†	46875.2	31.73	mg/L	0.658	158.7	mg/L	3.29	2.07%
Mn 257.610†	99026.3	2.738	mg/L	0.0620	13.69	mg/L	0.310	2.27%
Mo 202.031†	49.2	0.00224	mg/L	0.000273	0.01121	mg/L	0.001364	12.16%
Na 589.592†	8063.0	0.6328	mg/L	0.00791	3.164	mg/L	0.0395	1.25%
Na 330.237†	-16.3	-0.2206	mg/L	0.26292	-1.103	mg/L	1.3146	119.21%
Ni 231.604†	270.2	0.06556	mg/L	0.000253	0.3278	mg/L	0.00126	0.39%
Pb 220.353†	13726.5	1.726	mg/L	0.0095	8.632	mg/L	0.0475	0.55%
Sb 206.836†	35.3	0.01143	mg/L	0.000782	0.05717	mg/L	0.003909	6.84%
Se 196.026†	9.6	0.00628	mg/L	0.004233	0.03140	mg/L	0.021165	67.40%
Si 288.158†	2522.0	1.176	mg/L	0.0195	5.879	mg/L	0.0973	1.65%
Sn 189.927†	-6.7	0.00119	mg/L	0.001439	0.00594	mg/L	0.007197	121.06%
Sr 421.552†	161857.9	0.1728	mg/L	0.00330	0.8639	mg/L	0.01649	1.91%
Ti 334.903†	80050.7	3.840	mg/L	0.0786	19.20	mg/L	0.393	2.05%
Tl 190.801†	-18.6	0.00227	mg/L	0.000087	0.01133	mg/L	0.000436	3.85%
V 292.402†	29566.8	0.2211	mg/L	0.00271	1.106	mg/L	0.0136	1.23%
Zn 206.200†	6477.5	1.598	mg/L	0.0293	7.990	mg/L	0.1465	1.83%

Sequence No.: 7
Sample ID: VR33 K SWC

Autosampler Location: 360
Date Collected: 11/16/2012 3:51:10 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR33 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2196733.4	97.32	%	4.315				4.43%
ScR 361.383	278230.8	97.31	%	1.872				1.92%
Ag 328.068†	-84.0	-0.00044	mg/L	0.000124	-0.00220	mg/L	0.000620	28.23%
Al 308.215†	99829.7	56.05	mg/L	1.211	280.2	mg/L	6.05	2.16%
As 188.979†	-31.7	0.05383	mg/L	0.001389	0.2691	mg/L	0.00694	2.58%
B 249.677†	98.6	0.01251	mg/L	0.000370	0.06254	mg/L	0.001852	2.96%
Ba 233.527†	3902.4	0.8475	mg/L	0.01643	4.237	mg/L	0.0822	1.94%
Be 313.042†	1433.2	0.00210	mg/L	0.000063	0.01050	mg/L	0.000313	2.98%
Ca 317.933†	432413.3	30.44	mg/L	0.673	152.2	mg/L	3.36	2.21%
Cd 228.802†	762.6	0.02350	mg/L	0.001315	0.1175	mg/L	0.00658	5.60%
Co 228.616†	1391.5	0.03348	mg/L	0.001746	0.1674	mg/L	0.00873	5.21%
Cr 267.716†	754.7	0.1223	mg/L	0.00282	0.6113	mg/L	0.01411	2.31%
Cu 324.752†	26965.4	0.1065	mg/L	0.00612	0.5323	mg/L	0.03062	5.75%
Fe 273.955†	101980.9	77.78	mg/L	1.660	388.9	mg/L	8.30	2.13%
K 766.490†	22467.5	11.27	mg/L	0.250	56.36	mg/L	1.250	2.22%
Mg 279.077†	28079.3	19.00	mg/L	0.429	95.00	mg/L	2.143	2.26%
Mn 257.610†	118229.1	3.268	mg/L	0.0692	16.34	mg/L	0.346	2.12%
Mo 202.031†	61.0	0.00270	mg/L	0.000034	0.01351	mg/L	0.000171	1.27%
Na 589.592†	4716.6	0.3702	mg/L	0.00264	1.851	mg/L	0.0132	0.71%
Na 330.237†	-21.6	-0.5843	mg/L	0.18609	-2.921	mg/L	0.9304	31.85%
Ni 231.604†	286.5	0.06951	mg/L	0.000912	0.3476	mg/L	0.00456	1.31%
Pb 220.353†	6791.9	0.8591	mg/L	0.03922	4.296	mg/L	0.1961	4.57%
Sb 206.836†	21.3	0.00626	mg/L	0.002138	0.03130	mg/L	0.010690	34.15%
Se 196.026†	-3.2	-0.00221	mg/L	0.005312	-0.01107	mg/L	0.026561	239.92%
Si 288.158†	4886.3	2.273	mg/L	0.0381	11.36	mg/L	0.191	1.68%
Sn 189.927†	-40.0	-0.00609	mg/L	0.001001	-0.03046	mg/L	0.005003	16.42%
Sr 421.552†	275381.6	0.2940	mg/L	0.00631	1.470	mg/L	0.0315	2.15%
Ti 334.903†	52821.4	2.533	mg/L	0.0536	12.67	mg/L	0.268	2.12%
Tl 190.801†	-12.0	0.00291	mg/L	0.000928	0.01457	mg/L	0.004642	31.87%
V 292.402†	16419.7	0.1223	mg/L	0.00711	0.6113	mg/L	0.03557	5.82%
Zn 206.200†	5032.5	1.241	mg/L	0.0221	6.207	mg/L	0.1107	1.78%

Sequence No.: 8
Sample ID: VR33 L SWC

Autosampler Location: 361
Date Collected: 11/16/2012 3:55:11 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR33 L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR33 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2333450.9	103.4	%	0.68				0.66%
ScR 361.383	301151.0	105.3	%	0.99				0.94%
Ag 328.068†	-156.1	-0.00085	mg/L	0.000101	-0.00424	mg/L	0.000505	11.92%
Al 308.215†	121696.2	68.33	mg/L	0.078	341.6	mg/L	0.39	0.11%
As 188.979†	-56.7	0.04785	mg/L	0.001275	0.2393	mg/L	0.00637	2.66%
B 249.677†	62.8	0.00792	mg/L	0.000132	0.03959	mg/L	0.000661	1.67%
Ba 233.527†	3187.7	0.6888	mg/L	0.00780	3.444	mg/L	0.0390	1.13%
Be 313.042†	1500.6	0.00220	mg/L	0.000035	0.01099	mg/L	0.000173	1.57%
Ca 317.933†	278715.6	19.62	mg/L	0.064	98.11	mg/L	0.319	0.33%
Cd 228.802†	364.8	0.01097	mg/L	0.000258	0.05486	mg/L	0.001292	2.35%
Co 228.616†	1645.8	0.04017	mg/L	0.000337	0.2008	mg/L	0.00168	0.84%
Cr 267.716†	575.2	0.09391	mg/L	0.001709	0.4695	mg/L	0.00855	1.82%
Cu 324.752†	22920.8	0.09118	mg/L	0.001056	0.4559	mg/L	0.00528	1.16%
Fe 273.955†	111187.4	84.80	mg/L	0.246	424.0	mg/L	1.23	0.29%
K 766.490†	21653.7	10.86	mg/L	0.044	54.32	mg/L	0.219	0.40%
Mg 279.077†	25440.5	17.21	mg/L	0.062	86.04	mg/L	0.312	0.36%
Mn 257.610†	119921.8	3.315	mg/L	0.0100	16.57	mg/L	0.050	0.30%
Mo 202.031†	46.2	0.00209	mg/L	0.000227	0.01043	mg/L	0.001133	10.87%
Na 589.592†	5131.9	0.4028	mg/L	0.00348	2.014	mg/L	0.0174	0.86%
Na 330.237†	-7.3	0.1489	mg/L	0.21807	0.7447	mg/L	1.09037	146.42%
Ni 231.604†	324.2	0.07868	mg/L	0.000664	0.3934	mg/L	0.00332	0.84%
Pb 220.353†	3113.0	0.4020	mg/L	0.00284	2.010	mg/L	0.0142	0.71%
Sb 206.836†	11.5	0.00378	mg/L	0.000699	0.01891	mg/L	0.003495	18.48%
Se 196.026†	10.4	0.00691	mg/L	0.004327	0.03457	mg/L	0.021635	62.59%
Si 288.158†	2642.5	1.230	mg/L	0.0155	6.150	mg/L	0.0773	1.26%
Sn 189.927†	-32.1	-0.00540	mg/L	0.000445	-0.02699	mg/L	0.002224	8.24%
Sr 421.552†	203421.9	0.2172	mg/L	0.00039	1.086	mg/L	0.0019	0.18%
Ti 334.903†	57600.0	2.763	mg/L	0.0042	13.81	mg/L	0.021	0.15%
Tl 190.801†	-12.3	0.00356	mg/L	0.000909	0.01780	mg/L	0.004547	25.54%
V 292.402†	16139.8	0.1196	mg/L	0.00135	0.5981	mg/L	0.00676	1.13%
Zn 206.200†	2782.1	0.6863	mg/L	0.00436	3.431	mg/L	0.0218	0.64%

Sequence No.: 9
Sample ID: CV 12

Autosampler Location: 7
Date Collected: 11/16/2012 3:59:13 PM
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	2262093.8	100.2	%	0.82				0.82%
ScR 361.383	285242.5	99.76	%	1.277				1.28%
Ag 328.068†	177297.2	1.004	mg/L	0.0098	1.004	mg/L	0.0098	0.97%
Al 308.215†	3668.7	2.026	mg/L	0.0246	2.026	mg/L	0.0246	1.21%
As 188.979†	3684.8	1.976	mg/L	0.0171	1.976	mg/L	0.0171	0.87%
B 249.677†	7560.6	0.9640	mg/L	0.01304	0.9640	mg/L	0.01304	1.35%
Ba 233.527†	4615.8	1.017	mg/L	0.0115	1.017	mg/L	0.0115	1.13%
Be 313.042†	636663.6	0.9571	mg/L	0.00725	0.9571	mg/L	0.00725	0.76%
Ca 317.933†	27619.3	1.944	mg/L	0.0144	1.944	mg/L	0.0144	0.74%
Cd 228.802†	33158.4	1.034	mg/L	0.0104	1.034	mg/L	0.0104	1.01%
Co 228.616†	35694.3	1.010	mg/L	0.0112	1.010	mg/L	0.0112	1.11%
Cr 267.716†	6396.4	1.029	mg/L	0.0126	1.029	mg/L	0.0126	1.22%
Cu 324.752†	260252.9	1.000	mg/L	0.0065	1.000	mg/L	0.0065	0.65%
Fe 273.955†	2748.6	2.089	mg/L	0.0251	2.089	mg/L	0.0251	1.20%
K 766.490†	39776.0	19.96	mg/L	0.149	19.96	mg/L	0.149	0.75%
Mg 279.077†	2975.6	2.025	mg/L	0.0201	2.025	mg/L	0.0201	0.99%
Mn 257.610†	36379.6	1.006	mg/L	0.0076	1.006	mg/L	0.0076	0.75%
Mo 202.031†	20104.7	1.002	mg/L	0.0099	1.002	mg/L	0.0099	0.99%
Na 589.592†	624041.4	48.98	mg/L	0.485	48.98	mg/L	0.485	0.99%
Na 330.237†	1496.6	51.99	mg/L	0.360	51.99	mg/L	0.360	0.69%
Ni 231.604†	3988.9	0.9682	mg/L	0.01173	0.9682	mg/L	0.01173	1.21%
Pb 220.353†	15597.9	1.950	mg/L	0.0203	1.950	mg/L	0.0203	1.04%
Sb 206.836†	6980.2	2.134	mg/L	0.0238	2.134	mg/L	0.0238	1.12%
Se 196.026†	2898.1	1.945	mg/L	0.0180	1.945	mg/L	0.0180	0.92%
Si 288.158†	4489.2	2.085	mg/L	0.0323	2.085	mg/L	0.0323	1.55%
Sn 189.927†	3986.1	1.024	mg/L	0.0100	1.024	mg/L	0.0100	0.97%
Sr 421.552†	897083.4	0.9577	mg/L	0.00869	0.9577	mg/L	0.00869	0.91%
Ti 334.903†	21320.0	1.022	mg/L	0.0097	1.022	mg/L	0.0097	0.95%
Tl 190.801†	4971.3	1.936	mg/L	0.0198	1.936	mg/L	0.0198	1.02%
V 292.402†	133567.7	1.024	mg/L	0.0098	1.024	mg/L	0.0098	0.96%
Zn 206.200†	4041.0	0.9966	mg/L	0.01025	0.9966	mg/L	0.01025	1.03%

Sequence No.: 10
Sample ID: CB 12

Autosampler Location: 1
Date Collected: 11/16/2012 4:04:19 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	2269012.6	100.5	%	0.64				0.63%
ScR 361.383	292450.1	102.3	%	2.50				2.44%
Ag 328.068†	76.3	0.00043	mg/L	0.000049	0.00043	mg/L	0.000049	11.33%
Al 308.215†	17.0	0.00956	mg/L	0.004765	0.00956	mg/L	0.004765	49.86%
As 188.979†	0.4	0.00024	mg/L	0.000464	0.00024	mg/L	0.000464	196.09%
B 249.677†	7.6	0.00097	mg/L	0.001303	0.00097	mg/L	0.001303	134.09%
Ba 233.527†	-5.0	-0.00109	mg/L	0.000741	-0.00109	mg/L	0.000741	67.67%
Be 313.042†	92.8	0.00014	mg/L	0.000016	0.00014	mg/L	0.000016	11.52%
Ca 317.933†	49.0	0.00345	mg/L	0.001132	0.00345	mg/L	0.001132	32.82%
Cd 228.802†	-11.4	-0.00036	mg/L	0.000146	-0.00036	mg/L	0.000146	40.24%
Co 228.616†	-6.2	-0.00018	mg/L	0.000030	-0.00018	mg/L	0.000030	16.80%
Cr 267.716†	-3.9	-0.00062	mg/L	0.000888	-0.00062	mg/L	0.000888	142.32%
Cu 324.752†	-45.1	-0.00017	mg/L	0.000129	-0.00017	mg/L	0.000129	74.17%
Fe 273.955†	16.8	0.01280	mg/L	0.004378	0.01280	mg/L	0.004378	34.22%
K 766.490†	7.0	0.00350	mg/L	0.008391	0.00350	mg/L	0.008391	239.82%
Mg 279.077†	-2.5	-0.00169	mg/L	0.004610	-0.00169	mg/L	0.004610	273.27%
Mn 257.610†	4.0	0.00011	mg/L	0.000060	0.00011	mg/L	0.000060	54.98%
Mo 202.031†	15.6	0.00078	mg/L	0.000076	0.00078	mg/L	0.000076	9.77%
Na 589.592†	94.2	0.00739	mg/L	0.003626	0.00739	mg/L	0.003626	49.04%
Na 330.237†	1.4	0.04796	mg/L	0.404095	0.04796	mg/L	0.404095	842.57%
Ni 231.604†	-1.9	-0.00046	mg/L	0.000628	-0.00046	mg/L	0.000628	135.18%
Pb 220.353†	0.0	0.00000	mg/L	0.000855	0.00000	mg/L	0.000855	>999.9%
Sb 206.836†	7.3	0.00224	mg/L	0.001437	0.00224	mg/L	0.001437	64.09%
Se 196.026†	3.5	0.00236	mg/L	0.002542	0.00236	mg/L	0.002542	107.52%
Si 288.158†	8.1	0.00377	mg/L	0.006244	0.00377	mg/L	0.006244	165.58%
Sn 189.927†	-0.8	-0.00021	mg/L	0.000097	-0.00021	mg/L	0.000097	45.84%
Sr 421.552†	159.9	0.00017	mg/L	0.000035	0.00017	mg/L	0.000035	20.75%
Ti 334.903†	16.7	0.00080	mg/L	0.000917	0.00080	mg/L	0.000917	114.24%
Tl 190.801†	5.9	0.00231	mg/L	0.000739	0.00231	mg/L	0.000739	31.93%
V 292.402†	-37.1	-0.00029	mg/L	0.000090	-0.00029	mg/L	0.000090	31.40%
Zn 206.200†	-1.2	-0.00031	mg/L	0.000290	-0.00031	mg/L	0.000290	94.22%

Sequence No.: 11
Sample ID: CRI

Autosampler Location: 301
Date Collected: 11/16/2012 4:08:35 PM
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	2284761.1	101.2	%	1.22				1.21%
ScR 361.383	290090.7	101.5	%	1.08				1.06%
Ag 328.068†	564.4	0.00319	mg/L	0.000242	0.00319	mg/L	0.000242	7.58%
Al 308.215†	108.6	0.06085	mg/L	0.006318	0.06085	mg/L	0.006318	10.38%
As 188.979†	88.6	0.04707	mg/L	0.002570	0.04707	mg/L	0.002570	5.46%
B 249.677†	156.9	0.02002	mg/L	0.001066	0.02002	mg/L	0.001066	5.33%
Ba 233.527†	10.5	0.00229	mg/L	0.000113	0.00229	mg/L	0.000113	4.94%
Be 313.042†	667.0	0.00100	mg/L	0.000015	0.00100	mg/L	0.000015	1.49%
Ca 317.933†	728.3	0.05128	mg/L	0.000186	0.05128	mg/L	0.000186	0.36%
Cd 228.802†	59.4	0.00157	mg/L	0.000146	0.00157	mg/L	0.000146	9.30%
Co 228.616†	112.6	0.00318	mg/L	0.000055	0.00318	mg/L	0.000055	1.74%
Cr 267.716†	28.0	0.00450	mg/L	0.001876	0.00450	mg/L	0.001876	41.70%
Cu 324.752†	447.8	0.00172	mg/L	0.000099	0.00172	mg/L	0.000099	5.74%
Fe 273.955†	82.4	0.06283	mg/L	0.002076	0.06283	mg/L	0.002076	3.30%
K 766.490†	994.1	0.4988	mg/L	0.01164	0.4988	mg/L	0.01164	2.33%
Mg 279.077†	76.6	0.05193	mg/L	0.000896	0.05193	mg/L	0.000896	1.73%
Mn 257.610†	33.1	0.00092	mg/L	0.000068	0.00092	mg/L	0.000068	7.42%
Mo 202.031†	99.2	0.00494	mg/L	0.000109	0.00494	mg/L	0.000109	2.21%
Na 589.592†	5937.4	0.4660	mg/L	0.00283	0.4660	mg/L	0.00283	0.61%
Na 330.237†	18.7	0.6502	mg/L	0.31375	0.6502	mg/L	0.31375	48.26%
Ni 231.604†	35.6	0.00864	mg/L	0.000914	0.00864	mg/L	0.000914	10.58%
Pb 220.353†	167.3	0.02093	mg/L	0.000542	0.02093	mg/L	0.000542	2.59%
Sb 206.836†	168.6	0.05160	mg/L	0.000157	0.05160	mg/L	0.000157	0.30%
Se 196.026†	80.6	0.05412	mg/L	0.003062	0.05412	mg/L	0.003062	5.66%
Si 288.158†	142.0	0.06596	mg/L	0.003587	0.06596	mg/L	0.003587	5.44%
Sn 189.927†	34.2	0.00882	mg/L	0.000799	0.00882	mg/L	0.000799	9.06%
Sr 421.552†	966.0	0.00103	mg/L	0.000014	0.00103	mg/L	0.000014	1.38%
Ti 334.903†	126.7	0.00607	mg/L	0.000925	0.00607	mg/L	0.000925	15.23%
Tl 190.801†	122.5	0.04789	mg/L	0.000959	0.04789	mg/L	0.000959	2.00%
V 292.402†	362.3	0.00278	mg/L	0.000143	0.00278	mg/L	0.000143	5.13%
Zn 206.200†	35.5	0.00874	mg/L	0.000417	0.00874	mg/L	0.000417	4.77%

Sequence No.: 12
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/16/2012 4:12:52 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	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2238641.2	99.18	%	0.196				0.20%
ScR 361.383	283194.8	99.04	%	0.662				0.67%
Ag 328.068†	-159.0	-0.00090	mg/L	0.000206	-0.00090	mg/L	0.000206	22.98%
Al 308.215†	352569.5	198.0	mg/L	2.30	198.0	mg/L	2.30	1.16%
As 188.979†	41.5	0.01641	mg/L	0.002915	0.01641	mg/L	0.002915	17.76%
B 249.677†	-27.9	-0.00356	mg/L	0.001822	-0.00356	mg/L	0.001822	51.13%
Ba 233.527†	133.7	-0.00288	mg/L	0.000472	-0.00288	mg/L	0.000472	16.39%
Be 313.042†	111.8	0.00017	mg/L	0.000011	0.00017	mg/L	0.000011	6.83%
Ca 317.933†	1405409.6	98.95	mg/L	1.308	98.95	mg/L	1.308	1.32%
Cd 228.802†	45.6	-0.00059	mg/L	0.000181	-0.00059	mg/L	0.000181	30.80%
Co 228.616†	60.9	-0.00086	mg/L	0.000267	-0.00086	mg/L	0.000267	31.08%
Cr 267.716†	1.1	-0.00149	mg/L	0.000999	-0.00149	mg/L	0.000999	67.01%
Cu 324.752†	-2154.8	-0.00038	mg/L	0.000096	-0.00038	mg/L	0.000096	25.22%
Fe 273.955†	259131.0	197.6	mg/L	2.30	197.6	mg/L	2.30	1.17%
K 766.490†	-15.8	-0.00792	mg/L	0.009741	-0.00792	mg/L	0.009741	123.06%
Mg 279.077†	145616.7	98.64	mg/L	1.242	98.64	mg/L	1.242	1.26%
Mn 257.610†	24.6	0.00067	mg/L	0.000237	0.00067	mg/L	0.000237	35.68%
Mo 202.031†	44.4	0.00114	mg/L	0.000093	0.00114	mg/L	0.000093	8.18%
Na 589.592†	163.7	0.01285	mg/L	0.002347	0.01285	mg/L	0.002347	18.27%
Na 330.237†	-9.6	-0.3338	mg/L	0.22885	-0.3338	mg/L	0.22885	68.57%
Ni 231.604†	-0.1	-0.00001	mg/L	0.000948	-0.00001	mg/L	0.000948	>999.9%
Pb 220.353†	-292.9	0.00265	mg/L	0.000949	0.00265	mg/L	0.000949	35.86%
Sb 206.836†	14.0	0.00415	mg/L	0.002753	0.00415	mg/L	0.002753	66.27%
Se 196.026†	21.3	0.01432	mg/L	0.001654	0.01432	mg/L	0.001654	11.55%
Si 288.158†	-24.0	0.00081	mg/L	0.004498	0.00081	mg/L	0.004498	558.64%
Sn 189.927†	-76.7	-0.00743	mg/L	0.001517	-0.00743	mg/L	0.001517	20.41%
Sr 421.552†	3674.6	0.00392	mg/L Conf.	0.000008	0.00392	mg/L	0.000008	0.21%
Ti 334.903†	147.9	0.00237	mg/L	0.000181	0.00237	mg/L	0.000181	7.64%
Tl 190.801†	-52.9	0.00040	mg/L	0.003526	0.00040	mg/L	0.003526	879.94%
V 292.402†	1463.6	0.00427	mg/L	0.000173	0.00427	mg/L	0.000173	4.05%
Zn 206.200†	7.7	0.00191	mg/L	0.000698	0.00191	mg/L	0.000698	36.59%

Sequence No.: 13
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/16/2012 4:17:09 PM
Data Type: Original

Dilution: 1.000000X

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	2238392.5	99.17	%	1.003				1.01%
ScR 361.383	283102.7	99.01	%	1.472				1.49%
Ag 328.068†	173829.6	0.9840	mg/L	0.00766	0.9840	mg/L	0.00766	0.78%
Al 308.215†	350678.6	196.9	mg/L	3.60	196.9	mg/L	3.60	1.83%
As 188.979†	1907.4	1.003	mg/L	0.0150	1.003	mg/L	0.0150	1.49%
B 249.677†	-10.8	-0.00340	mg/L	0.000656	-0.00340	mg/L	0.000656	19.31%
Ba 233.527†	4776.9	1.020	mg/L	0.0199	1.020	mg/L	0.0199	1.95%
Be 313.042†	645690.1	0.9707	mg/L	0.01808	0.9707	mg/L	0.01808	1.86%
Ca 317.933†	1417527.9	99.80	mg/L	1.888	99.80	mg/L	1.888	1.89%
Cd 228.802†	33126.2	1.038	mg/L	0.0069	1.038	mg/L	0.0069	0.66%
Co 228.616†	34667.0	0.9804	mg/L	0.00623	0.9804	mg/L	0.00623	0.63%
Cr 267.716†	6468.8	1.039	mg/L	0.0176	1.039	mg/L	0.0176	1.69%
Cu 324.752†	265360.5	1.029	mg/L	0.0077	1.029	mg/L	0.0077	0.74%
Fe 273.955†	261260.6	199.3	mg/L	4.32	199.3	mg/L	4.32	2.17%
K 766.490†	-95.8	-0.04804	mg/L	0.017775	-0.04804	mg/L	0.017775	37.00%
Mg 279.077†	146511.1	99.25	mg/L	2.013	99.25	mg/L	2.013	2.03%
Mn 257.610†	35908.9	0.9927	mg/L	0.01982	0.9927	mg/L	0.01982	2.00%
Mo 202.031†	44.2	0.00107	mg/L	0.000306	0.00107	mg/L	0.000306	28.69%
Na 589.592†	297.6	0.02336	mg/L	0.001574	0.02336	mg/L	0.001574	6.74%
Na 330.237†	-0.7	-0.3352	mg/L	0.17063	-0.3352	mg/L	0.17063	50.90%
Ni 231.604†	3934.8	0.9549	mg/L	0.01739	0.9549	mg/L	0.01739	1.82%
Pb 220.353†	7540.9	0.9820	mg/L	0.01102	0.9820	mg/L	0.01102	1.12%
Sb 206.836†	3412.6	1.032	mg/L	0.0097	1.032	mg/L	0.0097	0.94%
Se 196.026†	1487.5	0.9980	mg/L	0.00594	0.9980	mg/L	0.00594	0.60%
Si 288.158†	-27.4	0.00302	mg/L	0.005149	0.00302	mg/L	0.005149	170.21%
Sn 189.927†	-76.7	-0.00684	mg/L	0.000857	-0.00684	mg/L	0.000857	12.53%
Sr 421.552†	3680.7	0.00393	mg/L	0.000075	0.00393	mg/L	0.000075	1.91%
Ti 334.903†	138.0	0.00165	mg/L	0.000474	0.00165	mg/L	0.000474	28.75%
Tl 190.801†	2324.1	0.9211	mg/L	0.00879	0.9211	mg/L	0.00879	0.95%
V 292.402†	129241.3	0.9845	mg/L	0.00692	0.9845	mg/L	0.00692	0.70%
Zn 206.200†	3846.6	0.9488	mg/L	0.01871	0.9488	mg/L	0.01871	1.97%

Sequence No.: 14
Sample ID: CV 13

Autosampler Location: 7
Date Collected: 11/16/2012 4:20:59 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	Sample Std.Dev.	RSD
ScA 357.253	2273298.0	100.7	%	0.34				0.34%
ScR 361.383	290143.1	101.5	%	0.56				0.55%
Ag 328.068†	171234.4	0.9693	mg/L	0.00454	0.9693	mg/L	0.00454	0.47%
Al 308.215†	3659.6	2.020	mg/L	0.0114	2.020	mg/L	0.0114	0.56%
As 188.979†	3663.5	1.965	mg/L	0.0035	1.965	mg/L	0.0035	0.18%
B 249.677†	7389.3	0.9421	mg/L	0.00212	0.9421	mg/L	0.00212	0.22%
Ba 233.527†	4560.8	1.005	mg/L	0.0076	1.005	mg/L	0.0076	0.76%
Be 313.042†	632518.6	0.9509	mg/L	0.00784	0.9509	mg/L	0.00784	0.82%
Ca 317.933†	29116.4	2.050	mg/L	0.0058	2.050	mg/L	0.0058	0.28%
Cd 228.802†	33218.1	1.036	mg/L	0.0062	1.036	mg/L	0.0062	0.59%
Co 228.616†	35894.8	1.016	mg/L	0.0052	1.016	mg/L	0.0052	0.51%
Cr 267.716†	6304.6	1.014	mg/L	0.0027	1.014	mg/L	0.0027	0.27%
Cu 324.752†	260382.7	1.001	mg/L	0.0034	1.001	mg/L	0.0034	0.34%
Fe 273.955†	2776.6	2.111	mg/L	0.0091	2.111	mg/L	0.0091	0.43%
K 766.490†	39289.2	19.71	mg/L	0.165	19.71	mg/L	0.165	0.84%
Mg 279.077†	2962.0	2.016	mg/L	0.0208	2.016	mg/L	0.0208	1.03%
Mn 257.610†	37207.2	1.029	mg/L	0.0037	1.029	mg/L	0.0037	0.36%
Mo 202.031†	20592.5	1.026	mg/L	0.0016	1.026	mg/L	0.0016	0.16%
Na 589.592†	612762.1	48.09	mg/L	0.373	48.09	mg/L	0.373	0.78%
Na 330.237†	1462.7	50.81	mg/L	0.102	50.81	mg/L	0.102	0.20%
Ni 231.604†	3945.6	0.9577	mg/L	0.00464	0.9577	mg/L	0.00464	0.48%
Pb 220.353†	16062.0	2.008	mg/L	0.0011	2.008	mg/L	0.0011	0.05%
Sb 206.836†	6924.2	2.117	mg/L	0.0037	2.117	mg/L	0.0037	0.17%
Se 196.026†	2896.0	1.944	mg/L	0.0036	1.944	mg/L	0.0036	0.19%
Si 288.158†	4408.7	2.048	mg/L	0.0062	2.048	mg/L	0.0062	0.30%
Sn 189.927†	3962.6	1.018	mg/L	0.0003	1.018	mg/L	0.0003	0.03%
Sr 421.552†	883120.3	0.9427	mg/L	0.00680	0.9427	mg/L	0.00680	0.72%
Ti 334.903†	21769.8	1.043	mg/L	0.0036	1.043	mg/L	0.0036	0.34%
Tl 190.801†	4948.9	1.927	mg/L	0.0042	1.927	mg/L	0.0042	0.22%
V 292.402†	131171.1	1.006	mg/L	0.0054	1.006	mg/L	0.0054	0.53%
Zn 206.200†	4039.0	0.9961	mg/L	0.00469	0.9961	mg/L	0.00469	0.47%

Sequence No.: 15
Sample ID: CB 13
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/16/2012 4:25:06 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	2286126.7	101.3	%	0.90				0.89%
ScR 361.383	289664.1	101.3	%	0.89				0.88%
Ag 328.068†	54.9	0.00031	mg/L	0.000128	0.00031	mg/L	0.000128	41.13%
Al 308.215†	50.1	0.02811	mg/L	0.005220	0.02811	mg/L	0.005220	18.57%
As 188.979†	-2.6	-0.00138	mg/L	0.001374	-0.00138	mg/L	0.001374	99.35%
B 249.677†	5.9	0.00076	mg/L	0.000758	0.00076	mg/L	0.000758	99.99%
Ba 233.527†	-0.7	-0.00015	mg/L	0.000249	-0.00015	mg/L	0.000249	162.68%
Be 313.042†	157.5	0.00024	mg/L	0.000019	0.00024	mg/L	0.000019	7.95%
Ca 317.933†	200.6	0.01412	mg/L	0.000526	0.01412	mg/L	0.000526	3.73%
Cd 228.802†	-10.7	-0.00033	mg/L	0.000041	-0.00033	mg/L	0.000041	12.45%
Co 228.616†	-4.0	-0.00011	mg/L	0.000132	-0.00011	mg/L	0.000132	115.31%
Cr 267.716†	-11.6	-0.00187	mg/L	0.000890	-0.00187	mg/L	0.000890	47.61%
Cu 324.752†	-39.6	-0.00015	mg/L	0.000090	-0.00015	mg/L	0.000090	59.60%
Fe 273.955†	40.4	0.03079	mg/L	0.003013	0.03079	mg/L	0.003013	9.78%
K 766.490†	32.0	0.01605	mg/L	0.019384	0.01605	mg/L	0.019384	120.81%
Mg 279.077†	21.5	0.01459	mg/L	0.004491	0.01459	mg/L	0.004491	30.78%
Mn 257.610†	3.3	0.00009	mg/L	0.000053	0.00009	mg/L	0.000053	57.61%
Mo 202.031†	12.2	0.00061	mg/L	0.000185	0.00061	mg/L	0.000185	30.43%
Na 589.592†	67.8	0.00532	mg/L	0.003612	0.00532	mg/L	0.003612	67.90%
Na 330.237†	-7.2	-0.2497	mg/L	0.79464	-0.2497	mg/L	0.79464	318.28%
Ni 231.604†	-2.5	-0.00060	mg/L	0.001044	-0.00060	mg/L	0.001044	174.55%
Pb 220.353†	10.9	0.00136	mg/L	0.000588	0.00136	mg/L	0.000588	43.17%
Sb 206.836†	9.9	0.00305	mg/L	0.001565	0.00305	mg/L	0.001565	51.35%
Se 196.026†	1.3	0.00088	mg/L	0.002604	0.00088	mg/L	0.002604	294.65%
Si 288.158†	6.0	0.00278	mg/L	0.005514	0.00278	mg/L	0.005514	198.12%
Sn 189.927†	-2.5	-0.00065	mg/L	0.000578	-0.00065	mg/L	0.000578	89.03%
Sr 421.552†	186.5	0.00020	mg/L	0.000030	0.00020	mg/L	0.000030	15.15%
Ti 334.903†	4.3	0.00021	mg/L	0.000738	0.00021	mg/L	0.000738	355.74%
Tl 190.801†	4.0	0.00156	mg/L	0.000202	0.00156	mg/L	0.000202	12.96%
V 292.402†	-3.6	-0.00004	mg/L	0.000067	-0.00004	mg/L	0.000067	183.92%
Zn 206.200†	-1.0	-0.00025	mg/L	0.000543	-0.00025	mg/L	0.000543	215.90%

Sequence No.: 16
Sample ID: VR36 MB1 SWC

Autosampler Location: 362
Date Collected: 11/16/2012 4:29:22 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR36 MB1 SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR36 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2302288.1	102.0	%	0.55				0.54%
ScR 361.383	288480.0	100.9	%	0.81				0.81%
Ag 328.068†	99.0	0.00056	mg/L	0.000220	0.00112	mg/L	0.000439	39.23%
Al 308.215†	51.5	0.02891	mg/L	0.011896	0.05782	mg/L	0.023792	41.15%
As 188.979†	-0.4	-0.00021	mg/L	0.000859	-0.00042	mg/L	0.001718	411.21%
B 249.677†	1.5	0.00018	mg/L	0.000189	0.00037	mg/L	0.000378	102.45%
Ba 233.527†	7.7	0.00169	mg/L	0.000552	0.00338	mg/L	0.001104	32.70%
Be 313.042†	388.6	0.00058	mg/L	0.000070	0.00117	mg/L	0.000139	11.92%
Ca 317.933†	325.6	0.02293	mg/L	0.000488	0.04585	mg/L	0.000977	2.13%
Cd 228.802†	3.4	0.00011	mg/L	0.000074	0.00022	mg/L	0.000147	67.28%
Co 228.616†	13.1	0.00037	mg/L	0.000103	0.00074	mg/L	0.000207	27.88%
Cr 267.716†	-5.7	-0.00091	mg/L	0.000886	-0.00182	mg/L	0.001772	97.14%
Cu 324.752†	52.4	0.00020	mg/L	0.000124	0.00041	mg/L	0.000248	61.01%
Fe 273.955†	49.4	0.03769	mg/L	0.002715	0.07538	mg/L	0.005431	7.20%
K 766.490†	33.2	0.01666	mg/L	0.008330	0.03333	mg/L	0.016659	49.99%
Mg 279.077†	33.6	0.02280	mg/L	0.008066	0.04559	mg/L	0.016131	35.38%
Mn 257.610†	41.5	0.00115	mg/L	0.000161	0.00229	mg/L	0.000322	14.05%
Mo 202.031†	-1.5	-0.00007	mg/L	0.000307	-0.00015	mg/L	0.000613	410.89%
Na 589.592†	157.4	0.01236	mg/L	0.003448	0.02471	mg/L	0.006897	27.91%
Na 330.237†	-1.9	-0.06704	mg/L	0.327740	-0.1341	mg/L	0.65548	488.86%
Ni 231.604†	1.3	0.00031	mg/L	0.000678	0.00062	mg/L	0.001356	218.55%
Pb 220.353†	18.5	0.00232	mg/L	0.000149	0.00464	mg/L	0.000298	6.42%
Sb 206.836†	3.9	0.00119	mg/L	0.001073	0.00237	mg/L	0.002145	90.48%
Se 196.026†	7.8	0.00521	mg/L	0.001371	0.01042	mg/L	0.002742	26.30%
Si 288.158†	10.2	0.00477	mg/L	0.000996	0.00953	mg/L	0.001991	20.89%
Sn 189.927†	-3.3	-0.00085	mg/L	0.000392	-0.00170	mg/L	0.000784	46.17%
Sr 421.552†	542.8	0.00058	mg/L	0.000023	0.00116	mg/L	0.000045	3.90%
Ti 334.903†	11.5	0.00055	mg/L	0.000879	0.00111	mg/L	0.001757	158.96%
Tl 190.801†	6.8	0.00264	mg/L	0.001063	0.00529	mg/L	0.002127	40.24%
V 292.402†	18.8	0.00014	mg/L	0.000107	0.00028	mg/L	0.000213	77.26%
Zn 206.200†	4.7	0.00115	mg/L	0.000546	0.00230	mg/L	0.001091	47.41%

Sequence No.: 17
Sample ID: VR36 B SWC

Autosampler Location: 363
Date Collected: 11/16/2012 4:33:38 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 B SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR36 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2261945.9	100.2	%	0.71				0.70%
ScR 361.383	290924.5	101.7	%	1.90				1.87%
Ag 328.068†	517.1	0.00296	mg/L	0.000293	0.01479	mg/L	0.001465	9.90%
Al 308.215†	119571.4	67.14	mg/L	1.282	335.7	mg/L	6.41	1.91%
As 188.979†	126.0	0.1435	mg/L	0.00236	0.7175	mg/L	0.01179	1.64%
B 249.677†	57.4	0.00727	mg/L	0.000598	0.03637	mg/L	0.002989	8.22%
Ba 233.527†	2815.7	0.6107	mg/L	0.01140	3.054	mg/L	0.0570	1.87%
Be 313.042†	1258.1	0.00184	mg/L	0.000056	0.00919	mg/L	0.000282	3.07%
Ca 317.933†	181300.4	12.76	mg/L	0.238	63.82	mg/L	1.192	1.87%
Cd 228.802†	1295.3	0.03990	mg/L	0.000240	0.1995	mg/L	0.00120	0.60%
Co 228.616†	901.9	0.01949	mg/L	0.000177	0.09747	mg/L	0.000885	0.91%
Cr 267.716†	349.6	0.05722	mg/L	0.001593	0.2861	mg/L	0.00796	2.78%
Cu 324.752†	43985.7	0.1712	mg/L	0.00186	0.8558	mg/L	0.00931	1.09%
Fe 273.955†	79509.3	60.64	mg/L	1.160	303.2	mg/L	5.80	1.91%
K 766.490†	7976.0	4.002	mg/L	0.0933	20.01	mg/L	0.467	2.33%
Mg 279.077†	18716.6	12.66	mg/L	0.265	63.30	mg/L	1.323	2.09%
Mn 257.610†	54791.5	1.515	mg/L	0.0286	7.575	mg/L	0.1429	1.89%
Mo 202.031†	59.5	0.00282	mg/L	0.000277	0.01411	mg/L	0.001385	9.82%
Na 589.592†	8767.6	0.6881	mg/L	0.01312	3.441	mg/L	0.0656	1.91%
Na 330.237†	5.6	0.2121	mg/L	0.16139	1.060	mg/L	0.8070	76.10%
Ni 231.604†	180.9	0.04392	mg/L	0.001484	0.2196	mg/L	0.00742	3.38%
Pb 220.353†	23749.5	2.982	mg/L	0.0229	14.91	mg/L	0.115	0.77%
Sb 206.836†	90.6	0.02856	mg/L	0.002616	0.1428	mg/L	0.01308	9.16%
Se 196.026†	12.3	0.00816	mg/L	0.004461	0.04080	mg/L	0.022305	54.66%
Si 288.158†	3194.3	1.486	mg/L	0.0306	7.429	mg/L	0.1529	2.06%
Sn 189.927†	20.0	0.00722	mg/L	0.000385	0.03609	mg/L	0.001925	5.33%
Sr 421.552†	98861.6	0.1055	mg/L	0.00200	0.5277	mg/L	0.00998	1.89%
Ti 334.903†	56500.5	2.710	mg/L	0.0507	13.55	mg/L	0.253	1.87%
Tl 190.801†	-9.9	0.00208	mg/L	0.002647	0.01038	mg/L	0.013233	127.47%
V 292.402†	14299.5	0.1060	mg/L	0.00136	0.5301	mg/L	0.00681	1.28%
Zn 206.200†	7379.8	1.821	mg/L	0.0319	9.103	mg/L	0.1596	1.75%

Sequence No.: 18
Sample ID: VR36 C SWC

Autosampler Location: 364
Date Collected: 11/16/2012 4:37:39 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 C SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2164052.0	95.87	%	2.219				2.31%
ScR 361.383	282923.4	98.95	%	3.147				3.18%
Ag 328.068†	210.3	0.00122	mg/L	0.000128	0.00609	mg/L	0.000640	10.51%
Al 308.215†	81575.8	45.80	mg/L	1.884	229.0	mg/L	9.42	4.11%
As 188.979†	10.0	0.06814	mg/L	0.005963	0.3407	mg/L	0.02981	8.75%
B 249.677†	45.4	0.00574	mg/L	0.000832	0.02870	mg/L	0.004160	14.50%
Ba 233.527†	3219.0	0.6999	mg/L	0.02232	3.500	mg/L	0.1116	3.19%
Be 313.042†	999.2	0.00146	mg/L	0.000075	0.00728	mg/L	0.000374	5.14%
Ca 317.933†	240929.2	16.96	mg/L	0.716	84.81	mg/L	3.580	4.22%
Cd 228.802†	1591.7	0.04969	mg/L	0.001467	0.2484	mg/L	0.00733	2.95%
Co 228.616†	944.6	0.02165	mg/L	0.000749	0.1082	mg/L	0.00374	3.46%
Cr 267.716†	393.3	0.06395	mg/L	0.002624	0.3197	mg/L	0.01312	4.10%
Cu 324.752†	23771.7	0.09344	mg/L	0.002616	0.4672	mg/L	0.01308	2.80%
Fe 273.955†	77150.5	58.84	mg/L	2.615	294.2	mg/L	13.07	4.44%
K 766.490†	11683.2	5.862	mg/L	0.2259	29.31	mg/L	1.129	3.85%
Mg 279.077†	20644.4	13.97	mg/L	0.587	69.84	mg/L	2.937	4.21%
Mn 257.610†	81935.7	2.265	mg/L	0.0984	11.33	mg/L	0.492	4.34%
Mo 202.031†	63.1	0.00296	mg/L	0.000349	0.01478	mg/L	0.001745	11.81%
Na 589.592†	6028.6	0.4732	mg/L	0.01873	2.366	mg/L	0.0937	3.96%
Na 330.237†	5.3	-0.1611	mg/L	0.13136	-0.8057	mg/L	0.65682	81.53%
Ni 231.604†	200.1	0.04855	mg/L	0.001793	0.2428	mg/L	0.00897	3.69%
Pb 220.353†	15218.5	1.910	mg/L	0.0533	9.552	mg/L	0.2663	2.79%
Sb 206.836†	43.8	0.01383	mg/L	0.001645	0.06916	mg/L	0.008226	11.89%
Se 196.026†	9.5	0.00633	mg/L	0.001579	0.03163	mg/L	0.007893	24.96%
Si 288.158†	3864.4	1.797	mg/L	0.0502	8.987	mg/L	0.2508	2.79%
Sn 189.927†	1.0	0.00275	mg/L	0.000502	0.01374	mg/L	0.002508	18.25%
Sr 421.552†	156409.5	0.1670	mg/L	0.00683	0.8349	mg/L	0.03416	4.09%
Ti 334.903†	46526.7	2.232	mg/L	0.0946	11.16	mg/L	0.473	4.24%
Tl 190.801†	-11.8	0.00118	mg/L	0.002171	0.00589	mg/L	0.010856	184.29%
V 292.402†	12776.0	0.09486	mg/L	0.002740	0.4743	mg/L	0.01370	2.89%
Zn 206.200†	10494.8	2.589	mg/L	0.0786	12.94	mg/L	0.393	3.04%

Sequence No.: 19
Sample ID: VR36 D SWC

Autosampler Location: 365
Date Collected: 11/16/2012 4:41:40 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 D SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2363178.4	104.7	%	0.27				0.25%
ScR 361.383	303676.6	106.2	%	2.74				2.58%
Ag 328.068†	271.5	0.00156	mg/L	0.000071	0.00780	mg/L	0.000355	4.56%
Al 308.215†	66523.4	37.35	mg/L	0.869	186.7	mg/L	4.34	2.33%
As 188.979†	-16.6	0.04460	mg/L	0.002008	0.2230	mg/L	0.01004	4.50%
B 249.677†	32.0	0.00404	mg/L	0.001148	0.02022	mg/L	0.005742	28.40%
Ba 233.527†	2724.9	0.5925	mg/L	0.01376	2.962	mg/L	0.0688	2.32%
Be 313.042†	808.6	0.00118	mg/L	0.000062	0.00588	mg/L	0.000308	5.24%
Ca 317.933†	222834.9	15.69	mg/L	0.347	78.44	mg/L	1.737	2.21%
Cd 228.802†	1173.1	0.03664	mg/L	0.000350	0.1832	mg/L	0.00175	0.95%
Co 228.616†	795.5	0.01819	mg/L	0.000086	0.09093	mg/L	0.000431	0.47%
Cr 267.716†	332.2	0.05401	mg/L	0.000549	0.2700	mg/L	0.00275	1.02%
Cu 324.752†	24217.4	0.09485	mg/L	0.000776	0.4742	mg/L	0.00388	0.82%
Fe 273.955†	65588.4	50.02	mg/L	1.256	250.1	mg/L	6.28	2.51%
K 766.490†	9960.0	4.997	mg/L	0.1212	24.99	mg/L	0.606	2.43%
Mg 279.077†	17539.1	11.87	mg/L	0.262	59.34	mg/L	1.311	2.21%
Mn 257.610†	65104.0	1.800	mg/L	0.0411	9.000	mg/L	0.2055	2.28%
Mo 202.031†	41.7	0.00191	mg/L	0.000290	0.00954	mg/L	0.001449	15.19%
Na 589.592†	5287.3	0.4150	mg/L	0.01022	2.075	mg/L	0.0511	2.46%
Na 330.237†	11.1	0.09961	mg/L	0.293068	0.4981	mg/L	1.46534	294.21%
Ni 231.604†	169.9	0.04123	mg/L	0.000727	0.2061	mg/L	0.00364	1.76%
Pb 220.353†	16112.9	2.021	mg/L	0.0086	10.10	mg/L	0.043	0.43%
Sb 206.836†	42.2	0.01331	mg/L	0.001436	0.06657	mg/L	0.007178	10.78%
Se 196.026†	4.5	0.00299	mg/L	0.004018	0.01495	mg/L	0.020091	134.36%
Si 288.158†	2425.9	1.129	mg/L	0.0262	5.643	mg/L	0.1310	2.32%
Sn 189.927†	8.1	0.00437	mg/L	0.000983	0.02186	mg/L	0.004913	22.47%
Sr 421.552†	152292.3	0.1626	mg/L	0.00358	0.8129	mg/L	0.01788	2.20%
Ti 334.903†	39593.9	1.899	mg/L	0.0417	9.495	mg/L	0.2084	2.20%
Tl 190.801†	1.9	0.00566	mg/L	0.001984	0.02832	mg/L	0.009921	35.03%
V 292.402†	10856.6	0.08059	mg/L	0.000451	0.4029	mg/L	0.00225	0.56%
Zn 206.200†	8849.3	2.183	mg/L	0.0475	10.91	mg/L	0.238	2.18%

Sequence No.: 20
Sample ID: VR36 A-L SWC

Autosampler Location: 366
Date Collected: 11/16/2012 4:45:41 PM
Data Type: Original

Dilution: 25.000000X

Nebulizer Parameters: VR36 A-L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2356534.5	104.4	%	0.36				0.34%
ScR 361.383	296007.4	103.5	%	0.48				0.47%
Ag 328.068†	61.7	0.00035	mg/L	0.000093	0.00882	mg/L	0.002314	26.24%
Al 308.215†	7590.0	4.261	mg/L	0.0523	106.5	mg/L	1.31	1.23%
As 188.979†	4.9	0.00849	mg/L	0.000651	0.2124	mg/L	0.01627	7.66%
B 249.677†	1.3	0.00016	mg/L	0.000438	0.00395	mg/L	0.010938	277.17%
Ba 233.527†	237.5	0.05121	mg/L	0.001025	1.280	mg/L	0.0256	2.00%
Be 313.042†	158.7	0.00023	mg/L	0.000014	0.00584	mg/L	0.000351	6.01%
Ca 317.933†	21089.9	1.485	mg/L	0.0139	37.12	mg/L	0.348	0.94%
Cd 228.802†	118.3	0.00365	mg/L	0.000067	0.09137	mg/L	0.001686	1.85%
Co 228.616†	79.7	0.00176	mg/L	0.000096	0.04396	mg/L	0.002406	5.47%
Cr 267.716†	42.7	0.00697	mg/L	0.000158	0.1742	mg/L	0.00395	2.27%
Cu 324.752†	2745.2	0.01081	mg/L	0.000244	0.2703	mg/L	0.00610	2.26%
Fe 273.955†	9212.1	7.026	mg/L	0.0708	175.7	mg/L	1.77	1.01%
K 766.490†	883.8	0.4434	mg/L	0.02003	11.08	mg/L	0.501	4.52%
Mg 279.077†	2419.2	1.637	mg/L	0.0089	40.92	mg/L	0.223	0.54%
Mn 257.610†	8455.3	0.2338	mg/L	0.00220	5.844	mg/L	0.0549	0.94%
Mo 202.031†	1.7	0.00007	mg/L	0.000070	0.00173	mg/L	0.001748	101.06%
Na 589.592†	584.9	0.04591	mg/L	0.001629	1.148	mg/L	0.0407	3.55%
Na 330.237†	-2.0	-0.07866	mg/L	0.090549	-1.967	mg/L	2.2637	115.11%
Ni 231.604†	18.8	0.00457	mg/L	0.000443	0.1142	mg/L	0.01106	9.69%
Pb 220.353†	1882.2	0.2360	mg/L	0.00073	5.899	mg/L	0.0183	0.31%
Sb 206.836†	5.4	0.00168	mg/L	0.000767	0.04207	mg/L	0.019183	45.60%
Se 196.026†	7.6	0.00512	mg/L	0.000839	0.1281	mg/L	0.02098	16.38%
Si 288.158†	361.0	0.1680	mg/L	0.00317	4.199	mg/L	0.0793	1.89%
Sn 189.927†	-4.4	-0.00091	mg/L	0.000258	-0.02286	mg/L	0.006442	28.18%
Sr 421.552†	18647.7	0.01991	mg/L	0.000165	0.4977	mg/L	0.00414	0.83%
Ti 334.903†	4367.1	0.2095	mg/L	0.00258	5.237	mg/L	0.0645	1.23%
Tl 190.801†	0.5	0.00089	mg/L	0.001270	0.02224	mg/L	0.031751	142.75%
V 292.402†	1546.2	0.01151	mg/L	0.000142	0.2877	mg/L	0.00356	1.24%
Zn 206.200†	691.6	0.1706	mg/L	0.00113	4.265	mg/L	0.0282	0.66%

Sequence No.: 21
Sample ID: VR36 A SWC

Autosampler Location: 367
Date Collected: 11/16/2012 4:49:41 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 A SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR36 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2336426.5	103.5	%	1.40				1.35%
ScR 361.383	301539.5	105.5	%	2.91				2.76%
Ag 328.068†	96.7	0.00056	mg/L	0.000126	0.00282	mg/L	0.000631	22.42%
Al 308.215†	35185.5	19.75	mg/L	0.640	98.77	mg/L	3.200	3.24%
As 188.979†	27.9	0.04212	mg/L	0.002900	0.2106	mg/L	0.01450	6.89%
B 249.677†	13.0	0.00163	mg/L	0.000576	0.00816	mg/L	0.002879	35.28%
Ba 233.527†	1095.1	0.2360	mg/L	0.00730	1.180	mg/L	0.0365	3.09%
Be 313.042†	597.8	0.00088	mg/L	0.000054	0.00438	mg/L	0.000268	6.12%
Ca 317.933†	99511.4	7.006	mg/L	0.2079	35.03	mg/L	1.040	2.97%
Cd 228.802†	626.7	0.01939	mg/L	0.000234	0.09697	mg/L	0.001171	1.21%
Co 228.616†	416.0	0.00947	mg/L	0.000097	0.04737	mg/L	0.000483	1.02%
Cr 267.716†	222.1	0.03618	mg/L	0.000541	0.1809	mg/L	0.00270	1.49%
Cu 324.752†	13820.8	0.05433	mg/L	0.000899	0.2717	mg/L	0.00449	1.65%
Fe 273.955†	42915.5	32.73	mg/L	1.117	163.7	mg/L	5.59	3.41%
K 766.490†	4214.8	2.115	mg/L	0.0577	10.57	mg/L	0.288	2.73%
Mg 279.077†	11199.4	7.577	mg/L	0.2121	37.89	mg/L	1.060	2.80%
Mn 257.610†	39429.7	1.090	mg/L	0.0358	5.451	mg/L	0.1791	3.29%
Mo 202.031†	28.4	0.00134	mg/L	0.000073	0.00668	mg/L	0.000367	5.49%
Na 589.592†	2600.3	0.2041	mg/L	0.00431	1.020	mg/L	0.0215	2.11%
Na 330.237†	8.6	0.2586	mg/L	0.52009	1.293	mg/L	2.6005	201.15%
Ni 231.604†	106.5	0.02584	mg/L	0.000408	0.1292	mg/L	0.00204	1.58%
Pb 220.353†	8510.8	1.067	mg/L	0.0106	5.335	mg/L	0.0531	0.99%
Sb 206.836†	33.6	0.01041	mg/L	0.001341	0.05207	mg/L	0.006706	12.88%
Se 196.026†	4.9	0.00323	mg/L	0.001921	0.01615	mg/L	0.009607	59.49%
Si 288.158†	1602.7	0.7456	mg/L	0.01869	3.728	mg/L	0.0934	2.51%
Sn 189.927†	-0.2	0.00100	mg/L	0.000923	0.00501	mg/L	0.004613	92.05%
Sr 421.552†	86719.6	0.09257	mg/L	0.002977	0.4629	mg/L	0.01489	3.22%
Ti 334.903†	20228.9	0.9703	mg/L	0.02793	4.851	mg/L	0.1397	2.88%
Tl 190.801†	-2.5	0.00226	mg/L	0.000754	0.01128	mg/L	0.003771	33.42%
V 292.402†	7372.6	0.05493	mg/L	0.000358	0.2746	mg/L	0.00179	0.65%
Zn 206.200†	3213.6	0.7928	mg/L	0.02111	3.964	mg/L	0.1055	2.66%

Sequence No.: 22
Sample ID: VR36 ADUP SWC

Autosampler Location: 368
Date Collected: 11/16/2012 4:53:41 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 ADUP SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2384929.6	105.7	%	0.44				0.41%
ScR 361.383	305232.8	106.8	%	2.16				2.03%
Ag 328.068†	72.2	0.00043	mg/L	0.000067	0.00213	mg/L	0.000337	15.83%
Al 308.215†	35626.4	20.00	mg/L	0.403	100.0	mg/L	2.01	2.01%
As 188.979†	23.2	0.04203	mg/L	0.002147	0.2101	mg/L	0.01074	5.11%
B 249.677†	8.0	0.00100	mg/L	0.000469	0.00501	mg/L	0.002346	46.83%
Ba 233.527†	1066.9	0.2296	mg/L	0.00581	1.148	mg/L	0.0291	2.53%
Be 313.042†	592.6	0.00087	mg/L	0.000039	0.00433	mg/L	0.000196	4.53%
Ca 317.933†	97908.8	6.893	mg/L	0.1500	34.47	mg/L	0.750	2.18%
Cd 228.802†	622.8	0.01927	mg/L	0.000146	0.09636	mg/L	0.000732	0.76%
Co 228.616†	428.2	0.00964	mg/L	0.000154	0.04820	mg/L	0.000768	1.59%
Cr 267.716†	221.3	0.03611	mg/L	0.001273	0.1806	mg/L	0.00637	3.53%
Cu 324.752†	13860.3	0.05453	mg/L	0.000569	0.2726	mg/L	0.00285	1.04%
Fe 273.955†	44698.8	34.09	mg/L	0.824	170.5	mg/L	4.12	2.42%
K 766.490†	4182.9	2.099	mg/L	0.0325	10.49	mg/L	0.162	1.55%
Mg 279.077†	11061.2	7.483	mg/L	0.1867	37.41	mg/L	0.933	2.49%
Mn 257.610†	39076.3	1.080	mg/L	0.0243	5.402	mg/L	0.1217	2.25%
Mo 202.031†	20.3	0.00093	mg/L	0.000180	0.00467	mg/L	0.000901	19.31%
Na 589.592†	2720.7	0.2135	mg/L	0.00353	1.068	mg/L	0.0177	1.65%
Na 330.237†	1.5	0.04121	mg/L	0.358433	0.2060	mg/L	1.79217	869.85%
Ni 231.604†	101.9	0.02473	mg/L	0.000395	0.1236	mg/L	0.00198	1.60%
Pb 220.353†	8413.4	1.055	mg/L	0.0123	5.274	mg/L	0.0615	1.17%
Sb 206.836†	28.0	0.00876	mg/L	0.001926	0.04379	mg/L	0.009631	22.00%
Se 196.026†	6.0	0.00399	mg/L	0.000281	0.01993	mg/L	0.001407	7.06%
Si 288.158†	1388.0	0.6459	mg/L	0.01803	3.229	mg/L	0.0901	2.79%
Sn 189.927†	1.1	0.00134	mg/L	0.000512	0.00668	mg/L	0.002560	38.33%
Sr 421.552†	97987.0	0.1046	mg/L	0.00213	0.5230	mg/L	0.01065	2.04%
Ti 334.903†	21985.1	1.055	mg/L	0.0219	5.273	mg/L	0.1095	2.08%
Tl 190.801†	0.3	0.00347	mg/L	0.000694	0.01735	mg/L	0.003472	20.01%
V 292.402†	8152.6	0.06078	mg/L	0.000884	0.3039	mg/L	0.00442	1.45%
Zn 206.200†	3096.1	0.7638	mg/L	0.02181	3.819	mg/L	0.1091	2.86%

Sequence No.: 23
Sample ID: VR36 ASPK SWC

Autosampler Location: 369
Date Collected: 11/16/2012 4:57:41 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2332605.7	103.3	%	1.39				1.35%
ScR 361.383	302151.0	105.7	%	1.84				1.74%
Ag 328.068†	34787.4	0.1969	mg/L	0.00305	0.9846	mg/L	0.01523	1.55%
Al 308.215†	37964.1	21.31	mg/L	0.346	106.6	mg/L	1.73	1.62%
As 188.979†	1481.9	0.8140	mg/L	0.00646	4.070	mg/L	0.0323	0.79%
B 249.677†	8.5	0.00064	mg/L	0.000197	0.00318	mg/L	0.000985	30.99%
Ba 233.527†	4672.0	1.024	mg/L	0.0222	5.120	mg/L	0.1109	2.17%
Be 313.042†	128557.2	0.1932	mg/L	0.00291	0.9662	mg/L	0.01454	1.50%
Ca 317.933†	155228.2	10.93	mg/L	0.175	54.64	mg/L	0.875	1.60%
Cd 228.802†	7565.5	0.2334	mg/L	0.00222	1.167	mg/L	0.0111	0.95%
Co 228.616†	7778.1	0.2180	mg/L	0.00191	1.090	mg/L	0.0096	0.88%
Cr 267.716†	1453.3	0.2340	mg/L	0.00463	1.170	mg/L	0.0231	1.98%
Cu 324.752†	68151.9	0.2634	mg/L	0.00361	1.317	mg/L	0.0181	1.37%
Fe 273.955†	46330.1	35.33	mg/L	0.603	176.7	mg/L	3.02	1.71%
K 766.490†	11744.6	5.892	mg/L	0.1028	29.46	mg/L	0.514	1.74%
Mg 279.077†	17021.4	11.52	mg/L	0.236	57.62	mg/L	1.182	2.05%
Mn 257.610†	47029.7	1.300	mg/L	0.0217	6.502	mg/L	0.1086	1.67%
Mo 202.031†	26.7	0.00120	mg/L	0.000210	0.00599	mg/L	0.001051	17.54%
Na 589.592†	50229.2	3.942	mg/L	0.0561	19.71	mg/L	0.280	1.42%
Na 330.237†	122.2	4.181	mg/L	0.2790	20.91	mg/L	1.395	6.67%
Ni 231.604†	873.0	0.2115	mg/L	0.00489	1.057	mg/L	0.0244	2.31%
Pb 220.353†	14778.7	1.851	mg/L	0.0254	9.254	mg/L	0.1269	1.37%
Sb 206.836†	40.7	0.01055	mg/L	0.002170	0.05277	mg/L	0.010848	20.56%
Se 196.026†	1162.1	0.7803	mg/L	0.00138	3.901	mg/L	0.0069	0.18%
Si 288.158†	1448.8	0.6754	mg/L	0.01673	3.377	mg/L	0.0836	2.48%
Sn 189.927†	-10.2	-0.00106	mg/L	0.000671	-0.00530	mg/L	0.003357	63.29%
Sr 421.552†	263310.7	0.2811	mg/L	0.00432	1.405	mg/L	0.0216	1.54%
Ti 334.903†	22044.9	1.057	mg/L	0.0170	5.286	mg/L	0.0851	1.61%
Tl 190.801†	1938.5	0.7598	mg/L	0.00738	3.799	mg/L	0.0369	0.97%
V 292.402†	33994.2	0.2589	mg/L	0.00336	1.295	mg/L	0.0168	1.30%
Zn 206.200†	3838.8	0.9470	mg/L	0.01845	4.735	mg/L	0.0922	1.95%

Sequence No.: 24
Sample ID: ~~VR36 APOST SWC~~ 2222222
At 11-20

Autosampler Location: 370
Date Collected: 11/16/2012 5:01:42 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VR36 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR36 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2373199.9	105.1	%	0.44				0.42%
ScR 361.383	304041.6	106.3	%	2.19				2.06%
Ag 328.068†	85456.5	0.4837	mg/L	0.00275	2.419	mg/L	0.0138	0.57%
Al 308.215†	38280.6	21.49	mg/L	0.621	107.4	mg/L	3.10	2.89%
As 188.979†	3635.0	1.951	mg/L	0.0139	9.753	mg/L	0.0697	0.71%
B 249.677†	14.8	0.00086	mg/L	0.000166	0.00429	mg/L	0.000832	19.38%
Ba 233.527†	9882.1	2.173	mg/L	0.0459	10.86	mg/L	0.229	2.11%
Be 313.042†	315237.8	0.4739	mg/L	0.01499	2.369	mg/L	0.0749	3.16%
Ca 317.933†	233226.4	16.42	mg/L	0.490	82.10	mg/L	2.448	2.98%
Cd 228.802†	17129.3	0.5280	mg/L	0.00232	2.640	mg/L	0.0116	0.44%
Co 228.616†	17818.5	0.5028	mg/L	0.00384	2.514	mg/L	0.0192	0.76%
Cr 267.716†	3296.8	0.5301	mg/L	0.01088	2.651	mg/L	0.0544	2.05%
Cu 324.752†	144933.1	0.5586	mg/L	0.00324	2.793	mg/L	0.0162	0.58%
Fe 273.955†	45088.5	34.39	mg/L	1.151	171.9	mg/L	5.75	3.35%
K 766.490†	22968.5	11.52	mg/L	0.370	57.62	mg/L	1.849	3.21%
Mg 279.077†	25585.6	17.33	mg/L	0.367	86.67	mg/L	1.836	2.12%
Mn 257.610†	56548.4	1.564	mg/L	0.0499	7.818	mg/L	0.2497	3.19%
Mo 202.031†	42.4	0.00191	mg/L	0.000178	0.00953	mg/L	0.000889	9.33%
Na 589.592†	118795.4	9.324	mg/L	0.2681	46.62	mg/L	1.341	2.88%
Na 330.237†	293.0	10.01	mg/L	0.137	50.03	mg/L	0.685	1.37%
Ni 231.604†	2004.4	0.4856	mg/L	0.00964	2.428	mg/L	0.0482	1.98%
Pb 220.353†	23590.2	2.952	mg/L	0.0113	14.76	mg/L	0.056	0.38%
Sb 206.836†	51.3	0.01061	mg/L	0.001295	0.05305	mg/L	0.006477	12.21%
Se 196.026†	2854.6	1.917	mg/L	0.0145	9.584	mg/L	0.0724	0.76%
Si 288.158†	1543.6	0.7212	mg/L	0.02001	3.606	mg/L	0.1001	2.77%
Sn 189.927†	-17.6	-0.00223	mg/L	0.001642	-0.01115	mg/L	0.008208	73.59%
Sr 421.552†	519519.0	0.5546	mg/L	0.01691	2.773	mg/L	0.0846	3.05%
Ti 334.903†	20117.9	0.9644	mg/L	0.02887	4.822	mg/L	0.1444	2.99%
Tl 190.801†	4716.0	1.843	mg/L	0.0134	9.217	mg/L	0.0672	0.73%
V 292.402†	71287.8	0.5451	mg/L	0.00288	2.726	mg/L	0.0144	0.53%
Zn 206.200†	5046.3	1.245	mg/L	0.0267	6.225	mg/L	0.1335	2.15%

Sequence No.: 25
Sample ID: VR36 MB1SPK SWC

Autosampler Location: 371
Date Collected: 11/16/2012 5:05:44 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR36 MB1SPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR36 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2327064.5	103.1	%	0.58				0.56%
ScR 361.383	296926.5	103.8	%	2.23				2.15%
Ag 328.068†	86830.3	0.4915	mg/L	0.00693	0.9830	mg/L	0.01387	1.41%
Al 308.215†	3518.1	1.968	mg/L	0.0432	3.937	mg/L	0.0864	2.19%
As 188.979†	3573.7	1.891	mg/L	0.0081	3.782	mg/L	0.0161	0.43%
B 249.677†	1.3	-0.00084	mg/L	0.000831	-0.00168	mg/L	0.001662	98.77%
Ba 233.527†	8962.2	1.975	mg/L	0.0474	3.950	mg/L	0.0948	2.40%
Be 313.042†	322623.6	0.4850	mg/L	0.01043	0.9701	mg/L	0.02087	2.15%
Ca 317.933†	137102.9	9.652	mg/L	0.2115	19.30	mg/L	0.423	2.19%
Cd 228.802†	16555.8	0.5104	mg/L	0.00494	1.021	mg/L	0.0099	0.97%
Co 228.616†	17340.4	0.4915	mg/L	0.00676	0.9831	mg/L	0.01352	1.38%
Cr 267.716†	3126.4	0.5023	mg/L	0.01137	1.005	mg/L	0.0227	2.26%
Cu 324.752†	125070.1	0.4810	mg/L	0.00451	0.9621	mg/L	0.00903	0.94%
Fe 273.955†	2660.6	2.026	mg/L	0.0428	4.052	mg/L	0.0856	2.11%
K 766.490†	19331.4	9.699	mg/L	0.1900	19.40	mg/L	0.380	1.96%
Mg 279.077†	14671.6	9.949	mg/L	0.2186	19.90	mg/L	0.437	2.20%
Mn 257.610†	18241.8	0.5045	mg/L	0.01051	1.009	mg/L	0.0210	2.08%
Mo 202.031†	16.6	0.00069	mg/L	0.000085	0.00139	mg/L	0.000170	12.21%
Na 589.592†	120003.7	9.419	mg/L	0.2316	18.84	mg/L	0.463	2.46%
Na 330.237†	290.6	9.959	mg/L	0.1049	19.92	mg/L	0.210	1.05%
Ni 231.604†	1936.0	0.4689	mg/L	0.00998	0.9379	mg/L	0.01997	2.13%
Pb 220.353†	15083.5	1.886	mg/L	0.0202	3.772	mg/L	0.0404	1.07%
Sb 206.836†	10.8	-0.00204	mg/L	0.000831	-0.00408	mg/L	0.001661	40.73%
Se 196.026†	2842.3	1.908	mg/L	0.0150	3.817	mg/L	0.0300	0.79%
Si 288.158†	-1.3	0.00248	mg/L	0.001193	0.00495	mg/L	0.002386	48.19%
Sn 189.927†	-19.5	-0.00376	mg/L	0.000856	-0.00751	mg/L	0.001712	22.79%
Sr 421.552†	447153.7	0.4773	mg/L	0.01054	0.9547	mg/L	0.02108	2.21%
Ti 334.903†	34.6	0.00110	mg/L	0.000193	0.00220	mg/L	0.000385	17.51%
Tl 190.801†	4716.0	1.840	mg/L	0.0115	3.680	mg/L	0.0230	0.63%
V 292.402†	63752.8	0.4890	mg/L	0.00611	0.9779	mg/L	0.01222	1.25%
Zn 206.200†	1915.2	0.4725	mg/L	0.01185	0.9450	mg/L	0.02369	2.51%

Sequence No.: 26
Sample ID: CV 14
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/16/2012 5:09:45 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	2303410.1	102.0	%	0.22				0.22%
ScR 361.383	294098.9	102.9	%	1.10				1.06%
Ag 328.068†	164936.1	0.9336	mg/L	0.00536	0.9336	mg/L	0.00536	0.57%
Al 308.215†	3517.9	1.942	mg/L	0.0182	1.942	mg/L	0.0182	0.94%
As 188.979†	3572.4	1.915	mg/L	0.0057	1.915	mg/L	0.0057	0.30%
B 249.677†	7297.6	0.9305	mg/L	0.01370	0.9305	mg/L	0.01370	1.47%
Ba 233.527†	4417.4	0.9733	mg/L	0.01059	0.9733	mg/L	0.01059	1.09%
Be 313.042†	614882.2	0.9244	mg/L	0.01248	0.9244	mg/L	0.01248	1.35%
Ca 317.933†	26499.4	1.866	mg/L	0.0257	1.866	mg/L	0.0257	1.38%
Cd 228.802†	32212.4	1.005	mg/L	0.0067	1.005	mg/L	0.0067	0.66%
Co 228.616†	34641.0	0.9805	mg/L	0.00533	0.9805	mg/L	0.00533	0.54%
Cr 267.716†	6191.8	0.9964	mg/L	0.01170	0.9964	mg/L	0.01170	1.17%
Cu 324.752†	252512.6	0.9707	mg/L	0.00391	0.9707	mg/L	0.00391	0.40%
Fe 273.955†	2663.5	2.025	mg/L	0.0278	2.025	mg/L	0.0278	1.37%
K 766.490†	38160.1	19.15	mg/L	0.256	19.15	mg/L	0.256	1.33%
Mg 279.077†	2866.3	1.951	mg/L	0.0235	1.951	mg/L	0.0235	1.21%
Mn 257.610†	35130.9	0.9714	mg/L	0.01468	0.9714	mg/L	0.01468	1.51%
Mo 202.031†	20063.5	0.9998	mg/L	0.00263	0.9998	mg/L	0.00263	0.26%
Na 589.592†	597143.1	46.87	mg/L	0.624	46.87	mg/L	0.624	1.33%
Na 330.237†	1455.4	50.55	mg/L	0.559	50.55	mg/L	0.559	1.11%
Ni 231.604†	3851.1	0.9348	mg/L	0.01236	0.9348	mg/L	0.01236	1.32%
Pb 220.353†	15585.5	1.949	mg/L	0.0041	1.949	mg/L	0.0041	0.21%
Sb 206.836†	6727.4	2.057	mg/L	0.0088	2.057	mg/L	0.0088	0.43%
Se 196.026†	2815.7	1.890	mg/L	0.0059	1.890	mg/L	0.0059	0.31%
Si 288.158†	4340.0	2.016	mg/L	0.0303	2.016	mg/L	0.0303	1.50%
Sn 189.927†	3864.8	0.9929	mg/L	0.00340	0.9929	mg/L	0.00340	0.34%
Sr 421.552†	862815.6	0.9211	mg/L	0.01192	0.9211	mg/L	0.01192	1.29%
Ti 334.903†	20520.6	0.9835	mg/L	0.01418	0.9835	mg/L	0.01418	1.44%
Tl 190.801†	4806.4	1.872	mg/L	0.0121	1.872	mg/L	0.0121	0.65%
V 292.402†	126454.8	0.9700	mg/L	0.00707	0.9700	mg/L	0.00707	0.73%
Zn 206.200†	3914.3	0.9653	mg/L	0.01340	0.9653	mg/L	0.01340	1.39%

Sequence No.: 27
Sample ID: CB 14

Autosampler Location: 1
Date Collected: 11/16/2012 5:14:38 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	2318147.2	102.7	%	0.66				0.64%
ScR 361.383	295824.8	103.5	%	0.11				0.11%
Ag 328.068†	58.6	0.00033	mg/L	0.000106	0.00033	mg/L	0.000106	32.04%
Al 308.215†	-0.9	-0.00054	mg/L	0.002350	-0.00054	mg/L	0.002350	436.54%
As 188.979†	-0.5	-0.00028	mg/L	0.000786	-0.00028	mg/L	0.000786	283.38%
B 249.677†	4.7	0.00060	mg/L	0.000357	0.00060	mg/L	0.000357	59.45%
Ba 233.527†	-4.7	-0.00103	mg/L	0.000360	-0.00103	mg/L	0.000360	35.10%
Be 313.042†	51.4	0.00008	mg/L	0.000052	0.00008	mg/L	0.000052	67.66%
Ca 317.933†	29.1	0.00205	mg/L	0.001093	0.00205	mg/L	0.001093	53.32%
Cd 228.802†	-15.1	-0.00047	mg/L	0.000110	-0.00047	mg/L	0.000110	23.21%
Co 228.616†	-7.3	-0.00021	mg/L	0.000095	-0.00021	mg/L	0.000095	45.33%
Cr 267.716†	-4.1	-0.00067	mg/L	0.001225	-0.00067	mg/L	0.001225	183.99%
Cu 324.752†	-119.1	-0.00046	mg/L	0.000089	-0.00046	mg/L	0.000089	19.37%
Fe 273.955†	3.4	0.00258	mg/L	0.001510	0.00258	mg/L	0.001510	58.51%
K 766.490†	-13.0	-0.00655	mg/L	0.013916	-0.00655	mg/L	0.013916	212.59%
Mg 279.077†	-2.1	-0.00141	mg/L	0.003341	-0.00141	mg/L	0.003341	236.41%
Mn 257.610†	-15.8	-0.00044	mg/L	0.000059	-0.00044	mg/L	0.000059	13.53%
Mo 202.031†	14.7	0.00073	mg/L	0.000069	0.00073	mg/L	0.000069	9.46%
Na 589.592†	39.9	0.00313	mg/L	0.000705	0.00313	mg/L	0.000705	22.52%
Na 330.237†	-0.3	-0.01042	mg/L	0.068310	-0.01042	mg/L	0.068310	655.80%
Ni 231.604†	-1.2	-0.00030	mg/L	0.001375	-0.00030	mg/L	0.001375	459.13%
Pb 220.353†	0.7	0.00009	mg/L	0.001000	0.00009	mg/L	0.001000	>999.9%
Sb 206.836†	9.2	0.00281	mg/L	0.001719	0.00281	mg/L	0.001719	61.30%
Se 196.026†	1.9	0.00127	mg/L	0.002566	0.00127	mg/L	0.002566	202.84%
Si 288.158†	4.6	0.00215	mg/L	0.001324	0.00215	mg/L	0.001324	61.55%
Sn 189.927†	-0.9	-0.00023	mg/L	0.000596	-0.00023	mg/L	0.000596	257.40%
Sr 421.552†	118.1	0.00013	mg/L	0.000032	0.00013	mg/L	0.000032	25.47%
Ti 334.903†	9.5	0.00046	mg/L	0.000826	0.00046	mg/L	0.000826	181.22%
Tl 190.801†	7.0	0.00272	mg/L	0.001142	0.00272	mg/L	0.001142	41.93%
V 292.402†	-35.8	-0.00028	mg/L	0.000149	-0.00028	mg/L	0.000149	54.08%
Zn 206.200†	-1.6	-0.00040	mg/L	0.000630	-0.00040	mg/L	0.000630	157.30%

Sequence No.: 28
Sample ID: VR36 E SWC

Dilution: 5.000000X

Del

Autosampler Location: 372
Date Collected: 11/16/2012 5:18:54 PM
Data Type: Original

Nebulizer Parameters: VR36 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2339676.2	103.7	%	0.63				0.61%
ScR 361.383	302461.5	105.8	%	3.06				2.90%
Ag 328.068†	-12.2	-0.00004	mg/L	0.000234	-0.00022	mg/L	0.001171	543.14%
Al 308.215†	78572.7	44.12	mg/L	1.773	220.6	mg/L	8.86	4.02%
As 188.979†	17.4	0.06785	mg/L	0.002144	0.3393	mg/L	0.01072	3.16%
B 249.677†	31.0	0.00392	mg/L	0.000210	0.01958	mg/L	0.001051	5.37%
Ba 233.527†	2753.7	0.5980	mg/L	0.01607	2.990	mg/L	0.0804	2.69%
Be 313.042†	933.9	0.00136	mg/L	0.000072	0.00681	mg/L	0.000362	5.32%
Ca 317.933†	137593.2	9.687	mg/L	0.3863	48.43	mg/L	1.931	3.99%
Cd 228.802†	465.0	0.01413	mg/L	0.000086	0.07064	mg/L	0.000428	0.61%
Co 228.616†	854.3	0.01946	mg/L	0.000221	0.09728	mg/L	0.001105	1.14%
Cr 267.716†	375.0	0.06114	mg/L	0.001374	0.3057	mg/L	0.00687	2.25%
Cu 324.752†	13855.0	0.05518	mg/L	0.000218	0.2759	mg/L	0.00109	0.40%
Fe 273.955†	72205.6	55.07	mg/L	1.998	275.4	mg/L	9.99	3.63%
K 766.490†	11002.8	5.520	mg/L	0.2591	27.60	mg/L	1.295	4.69%
Mg 279.077†	18483.8	12.51	mg/L	0.478	62.53	mg/L	2.390	3.82%
Mn 257.610†	65711.9	1.816	mg/L	0.0666	9.082	mg/L	0.3331	3.67%
Mo 202.031†	47.2	0.00224	mg/L	0.000403	0.01122	mg/L	0.002017	17.98%
Na 589.592†	6107.5	0.4794	mg/L	0.01880	2.397	mg/L	0.0940	3.92%
Na 330.237†	6.5	0.3755	mg/L	0.21519	1.877	mg/L	1.0759	57.31%
Ni 231.604†	186.1	0.04515	mg/L	0.001398	0.2258	mg/L	0.00699	3.10%
Pb 220.353†	4045.6	0.5139	mg/L	0.00277	2.570	mg/L	0.0139	0.54%
Sb 206.836†	21.7	0.00698	mg/L	0.001468	0.03492	mg/L	0.007339	21.02%
Se 196.026†	10.4	0.00694	mg/L	0.002885	0.03471	mg/L	0.014423	41.56%
Si 288.158†	3708.1	1.724	mg/L	0.0510	8.622	mg/L	0.2548	2.96%
Sn 189.927†	-19.0	-0.00337	mg/L	0.001088	-0.01686	mg/L	0.005441	32.28%
Sr 421.552†	98374.8	0.1050	mg/L	0.00417	0.5251	mg/L	0.02085	3.97%
Ti 334.903†	43144.1	2.070	mg/L	0.0816	10.35	mg/L	0.408	3.95%
Tl 190.801†	-14.4	-0.00020	mg/L	0.001766	-0.00100	mg/L	0.008832	886.40%
V 292.402†	11663.4	0.08651	mg/L	0.000215	0.4325	mg/L	0.00108	0.25%
Zn 206.200†	3948.5	0.9740	mg/L	0.02734	4.870	mg/L	0.1367	2.81%

Sequence No.: 29
Sample ID: VR36 F SWC

Del

Dilution: 5.000000X

Autosampler Location: 373
Date Collected: 11/16/2012 5:22:56 PM
Data Type: Original

Nebulizer Parameters: VR36 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 F SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2389357.3	105.9	%	1.18				1.12%
ScR 361.383	300175.7	105.0	%	2.19				2.08%
Ag 328.068†	-77.7	-0.00041	mg/L	0.000172	-0.00207	mg/L	0.000862	41.71%
Al 308.215†	81046.1	45.50	mg/L	1.252	227.5	mg/L	6.26	2.75%
As 188.979†	-78.1	0.02037	mg/L	0.004357	0.1019	mg/L	0.02179	21.39%
B 249.677†	20.2	0.00252	mg/L	0.000459	0.01261	mg/L	0.002293	18.19%
Ba 233.527†	1933.0	0.4167	mg/L	0.01039	2.083	mg/L	0.0519	2.49%
Be 313.042†	956.3	0.00139	mg/L	0.000054	0.00697	mg/L	0.000269	3.87%
Ca 317.933†	116882.3	8.229	mg/L	0.2286	41.14	mg/L	1.143	2.78%
Cd 228.802†	105.4	0.00309	mg/L	0.000162	0.01546	mg/L	0.000809	5.23%
Co 228.616†	913.8	0.02092	mg/L	0.000442	0.1046	mg/L	0.00221	2.11%
Cr 267.716†	387.9	0.06335	mg/L	0.000440	0.3167	mg/L	0.00220	0.69%
Cu 324.752†	10974.0	0.04419	mg/L	0.000661	0.2209	mg/L	0.00330	1.50%
Fe 273.955†	75400.8	57.51	mg/L	1.651	287.5	mg/L	8.26	2.87%
K 766.490†	10921.3	5.479	mg/L	0.1963	27.40	mg/L	0.981	3.58%
Mg 279.077†	19487.6	13.18	mg/L	0.378	65.92	mg/L	1.891	2.87%
Mn 257.610†	45422.4	1.256	mg/L	0.0356	6.278	mg/L	0.1778	2.83%
Mo 202.031†	21.9	0.00100	mg/L	0.000269	0.00500	mg/L	0.001347	26.93%
Na 589.592†	5689.1	0.4465	mg/L	0.01025	2.233	mg/L	0.0513	2.30%
Na 330.237†	-4.1	0.2086	mg/L	0.09211	1.043	mg/L	0.4606	44.16%
Ni 231.604†	197.4	0.04790	mg/L	0.000796	0.2395	mg/L	0.00398	1.66%
Pb 220.353†	823.6	0.1115	mg/L	0.00155	0.5575	mg/L	0.00776	1.39%
Sb 206.836†	12.0	0.00405	mg/L	0.000835	0.02024	mg/L	0.004174	20.62%
Se 196.026†	17.2	0.01147	mg/L	0.002245	0.05737	mg/L	0.011227	19.57%
Si 288.158†	3487.9	1.622	mg/L	0.0408	8.111	mg/L	0.2038	2.51%
Sn 189.927†	-17.7	-0.00320	mg/L	0.000915	-0.01602	mg/L	0.004577	28.58%
Sr 421.552†	87044.8	0.09292	mg/L	0.002546	0.4646	mg/L	0.01273	2.74%
Ti 334.903†	45347.0	2.175	mg/L	0.0627	10.88	mg/L	0.313	2.88%
Tl 190.801†	-11.5	0.00117	mg/L	0.003321	0.00584	mg/L	0.016604	284.30%
V 292.402†	12175.5	0.09019	mg/L	0.000866	0.4510	mg/L	0.00433	0.96%
Zn 206.200†	1775.5	0.4380	mg/L	0.01176	2.190	mg/L	0.0588	2.68%

Sequence No.: 30
Sample ID: VR36 G SWC

Dilution: 5.000000X

Del

Autosampler Location: 374
Date Collected: 11/16/2012 5:26:57 PM
Data Type: Original

Nebulizer Parameters: VR36 G SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR36 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2389207.7	105.8	%	0.94				0.89%
ScR 361.383	306008.0	107.0	%	2.96				2.77%
Ag 328.068†	-143.2	-0.00078	mg/L	0.000237	-0.00391	mg/L	0.001185	30.27%
Al 308.215†	79139.2	44.43	mg/L	1.392	222.2	mg/L	6.96	3.13%
As 188.979†	-101.2	0.00969	mg/L	0.001285	0.04844	mg/L	0.006424	13.26%
B 249.677†	10.6	0.00131	mg/L	0.000705	0.00653	mg/L	0.003527	54.01%
Ba 233.527†	1529.6	0.3282	mg/L	0.00761	1.641	mg/L	0.0381	2.32%
Be 313.042†	859.7	0.00125	mg/L	0.000056	0.00623	mg/L	0.000281	4.50%
Ca 317.933†	117364.1	8.263	mg/L	0.2366	41.31	mg/L	1.183	2.86%
Cd 228.802†	15.2	0.00035	mg/L	0.000082	0.00175	mg/L	0.000410	23.48%
Co 228.616†	871.4	0.01966	mg/L	0.000266	0.09829	mg/L	0.001331	1.35%
Cr 267.716†	379.1	0.06186	mg/L	0.000821	0.3093	mg/L	0.00410	1.33%
Cu 324.752†	10488.6	0.04219	mg/L	0.000545	0.2109	mg/L	0.00272	1.29%
Fe 273.955†	71809.1	54.77	mg/L	1.632	273.8	mg/L	8.16	2.98%
K 766.490†	10535.5	5.286	mg/L	0.1530	26.43	mg/L	0.765	2.89%
Mg 279.077†	19185.3	12.98	mg/L	0.397	64.91	mg/L	1.985	3.06%
Mn 257.610†	33311.6	0.9209	mg/L	0.02725	4.604	mg/L	0.1362	2.96%
Mo 202.031†	21.1	0.00096	mg/L	0.000183	0.00480	mg/L	0.000917	19.09%
Na 589.592†	6298.0	0.4943	mg/L	0.01569	2.472	mg/L	0.0785	3.17%
Na 330.237†	-9.1	0.1339	mg/L	0.18635	0.6694	mg/L	0.93176	139.18%
Ni 231.604†	187.2	0.04543	mg/L	0.002040	0.2271	mg/L	0.01020	4.49%
Pb 220.353†	114.0	0.02268	mg/L	0.000420	0.1134	mg/L	0.00210	1.85%
Sb 206.836†	3.0	0.00135	mg/L	0.001296	0.00674	mg/L	0.006482	96.20%
Se 196.026†	12.4	0.00828	mg/L	0.001170	0.04142	mg/L	0.005849	14.12%
Si 288.158†	2910.0	1.354	mg/L	0.0235	6.768	mg/L	0.1173	1.73%
Sn 189.927†	-17.6	-0.00318	mg/L	0.000752	-0.01588	mg/L	0.003762	23.69%
Sr 421.552†	84671.6	0.09039	mg/L	0.002751	0.4519	mg/L	0.01376	3.04%
Ti 334.903†	46453.1	2.229	mg/L	0.0680	11.14	mg/L	0.340	3.05%
Tl 190.801†	-12.8	0.00035	mg/L	0.001203	0.00177	mg/L	0.006017	340.32%
V 292.402†	12643.8	0.09378	mg/L	0.001091	0.4689	mg/L	0.00545	1.16%
Zn 206.200†	682.6	0.1684	mg/L	0.00344	0.8419	mg/L	0.01718	2.04%

Sequence No.: 31
Sample ID: VR36 H SWC

Del

Dilution: 5.000000X

Autosampler Location: 375
Date Collected: 11/16/2012 5:30:58 PM
Data Type: Original

Nebulizer Parameters: VR36 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR36 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2409863.5	106.8	%	0.57				0.53%
ScR 361.383	312432.4	109.3	%	1.92				1.75%
Ag 328.068†	213.6	0.00124	mg/L	0.000207	0.00621	mg/L	0.001037	16.71%
Al 308.215†	135792.2	76.24	mg/L	2.154	381.2	mg/L	10.77	2.82%
As 188.979†	31.8	0.09820	mg/L	0.003026	0.4910	mg/L	0.01513	3.08%
B 249.677†	43.6	0.00550	mg/L	0.000049	0.02752	mg/L	0.000246	0.89%
Ba 233.527†	2991.7	0.6494	mg/L	0.01554	3.247	mg/L	0.0777	2.39%
Be 313.042†	1232.1	0.00180	mg/L	0.000077	0.00898	mg/L	0.000384	4.27%
Ca 317.933†	179653.1	12.65	mg/L	0.389	63.24	mg/L	1.946	3.08%
Cd 228.802†	1107.2	0.03429	mg/L	0.000223	0.1714	mg/L	0.00111	0.65%
Co 228.616†	998.0	0.02190	mg/L	0.000095	0.1095	mg/L	0.00048	0.44%
Cr 267.716†	318.2	0.05219	mg/L	0.000496	0.2609	mg/L	0.00248	0.95%
Cu 324.752†	30745.9	0.1203	mg/L	0.00060	0.6013	mg/L	0.00298	0.50%
Fe 273.955†	80467.1	61.37	mg/L	1.737	306.9	mg/L	8.68	2.83%
K 766.490†	8739.5	4.385	mg/L	0.1305	21.92	mg/L	0.652	2.98%
Mg 279.077†	17845.1	12.07	mg/L	0.356	60.34	mg/L	1.780	2.95%
Mn 257.610†	75993.4	2.101	mg/L	0.0596	10.50	mg/L	0.298	2.84%
Mo 202.031†	41.6	0.00193	mg/L	0.000186	0.00966	mg/L	0.000931	9.64%
Na 589.592†	9061.1	0.7112	mg/L	0.02337	3.556	mg/L	0.1169	3.29%
Na 330.237†	19.2	0.7018	mg/L	0.16230	3.509	mg/L	0.8115	23.13%
Ni 231.604†	176.8	0.04291	mg/L	0.001274	0.2146	mg/L	0.00637	2.97%
Pb 220.353†	10553.0	1.335	mg/L	0.0041	6.673	mg/L	0.0203	0.30%
Sb 206.836†	39.9	0.01316	mg/L	0.001798	0.06581	mg/L	0.008991	13.66%
Se 196.026†	12.4	0.00824	mg/L	0.001837	0.04118	mg/L	0.009185	22.30%
Si 288.158†	1283.6	0.5980	mg/L	0.01275	2.990	mg/L	0.0637	2.13%
Sn 189.927†	-3.9	0.00103	mg/L	0.000494	0.00514	mg/L	0.002472	48.06%
Sr 421.552†	104340.8	0.1114	mg/L	0.00309	0.5569	mg/L	0.01545	2.77%
Ti 334.903†	59816.3	2.870	mg/L	0.0801	14.35	mg/L	0.401	2.79%
Tl 190.801†	-3.3	0.00470	mg/L	0.000895	0.02349	mg/L	0.004477	19.06%
V 292.402†	14787.7	0.1097	mg/L	0.00039	0.5485	mg/L	0.00196	0.36%
Zn 206.200†	7644.4	1.886	mg/L	0.0465	9.429	mg/L	0.2326	2.47%

Sequence No.: 32
Sample ID: VR36 I SWC

Del

Dilution: 5.000000X

Autosampler Location: 376
Date Collected: 11/16/2012 5:34:58 PM
Data Type: Original

Nebulizer Parameters: VR36 I SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR36 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2445622.6	108.3	%	1.02				0.94%
ScR 361.383	315280.4	110.3	%	0.92				0.83%
Ag 328.068†	122.8	0.00072	mg/L	0.000095	0.00358	mg/L	0.000473	13.22%
Al 308.215†	65107.1	36.55	mg/L	0.396	182.8	mg/L	1.98	1.08%
As 188.979†	48.7	0.07178	mg/L	0.000601	0.3589	mg/L	0.00301	0.84%
B 249.677†	25.8	0.00325	mg/L	0.000445	0.01626	mg/L	0.002225	13.69%
Ba 233.527†	3192.9	0.6963	mg/L	0.00995	3.481	mg/L	0.0498	1.43%
Be 313.042†	730.3	0.00106	mg/L	0.000034	0.00532	mg/L	0.000168	3.15%
Ca 317.933†	199181.4	14.02	mg/L	0.136	70.11	mg/L	0.680	0.97%
Cd 228.802†	1198.4	0.03725	mg/L	0.000384	0.1863	mg/L	0.00192	1.03%
Co 228.616†	712.4	0.01638	mg/L	0.000268	0.08190	mg/L	0.001342	1.64%
Cr 267.716†	301.1	0.04900	mg/L	0.000785	0.2450	mg/L	0.00393	1.60%
Cu 324.752†	17392.9	0.06850	mg/L	0.000708	0.3425	mg/L	0.00354	1.03%
Fe 273.955†	60358.4	46.03	mg/L	0.610	230.2	mg/L	3.05	1.33%
K 766.490†	7732.0	3.879	mg/L	0.0265	19.40	mg/L	0.132	0.68%
Mg 279.077†	14550.7	9.843	mg/L	0.1115	49.21	mg/L	0.558	1.13%
Mn 257.610†	90300.8	2.496	mg/L	0.0322	12.48	mg/L	0.161	1.29%
Mo 202.031†	43.0	0.00199	mg/L	0.000244	0.00995	mg/L	0.001218	12.25%
Na 589.592†	4466.2	0.3505	mg/L	0.00412	1.753	mg/L	0.0206	1.18%
Na 330.237†	13.0	0.2338	mg/L	0.15740	1.169	mg/L	0.7870	67.31%
Ni 231.604†	154.2	0.03742	mg/L	0.000611	0.1871	mg/L	0.00306	1.63%
Pb 220.353†	9749.4	1.225	mg/L	0.0105	6.127	mg/L	0.0524	0.85%
Sb 206.836†	28.5	0.00901	mg/L	0.000689	0.04505	mg/L	0.003447	7.65%
Se 196.026†	11.3	0.00755	mg/L	0.001524	0.03777	mg/L	0.007622	20.18%
Si 288.158†	3235.1	1.504	mg/L	0.0249	7.522	mg/L	0.1247	1.66%
Sn 189.927†	-7.0	0.00022	mg/L	0.000519	0.00110	mg/L	0.002596	235.97%
Sr 421.552†	112003.0	0.1196	mg/L	0.00139	0.5978	mg/L	0.00697	1.17%
Ti 334.903†	34123.4	1.637	mg/L	0.0201	8.183	mg/L	0.1007	1.23%
Tl 190.801†	-5.3	0.00247	mg/L	0.001248	0.01237	mg/L	0.006242	50.47%
V 292.402†	9684.1	0.07200	mg/L	0.000875	0.3600	mg/L	0.00437	1.22%
Zn 206.200†	7260.6	1.791	mg/L	0.0187	8.955	mg/L	0.0937	1.05%

Sequence No.: 33
Sample ID: VR36 J SWC

Del

Dilution: 5.000000X

Autosampler Location: 377
Date Collected: 11/16/2012 5:39:00 PM
Data Type: Original

Nebulizer Parameters: VR36 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR36 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2459652.0	109.0	%	0.52				0.48%
ScR 361.383	320927.2	112.2	%	0.17				0.15%
Ag 328.068†	196.0	0.00113	mg/L	0.000258	0.00564	mg/L	0.001290	22.88%
Al 308.215†	62607.2	35.15	mg/L	0.243	175.8	mg/L	1.21	0.69%
As 188.979†	139.9	0.1085	mg/L	0.00187	0.5424	mg/L	0.00933	1.72%
B 249.677†	16.6	0.00209	mg/L	0.000652	0.01044	mg/L	0.003261	31.22%
Ba 233.527†	2622.9	0.5720	mg/L	0.00136	2.860	mg/L	0.0068	0.24%
Be 313.042†	703.1	0.00103	mg/L	0.000016	0.00515	mg/L	0.000082	1.59%
Ca 317.933†	113999.6	8.026	mg/L	0.0477	40.13	mg/L	0.238	0.59%
Cd 228.802†	1171.2	0.03614	mg/L	0.000271	0.1807	mg/L	0.00135	0.75%
Co 228.616†	533.2	0.01223	mg/L	0.000194	0.06114	mg/L	0.000970	1.59%
Cr 267.716†	221.1	0.03606	mg/L	0.001141	0.1803	mg/L	0.00570	3.16%
Cu 324.752†	24017.9	0.09370	mg/L	0.000701	0.4685	mg/L	0.00350	0.75%
Fe 273.955†	49102.5	37.45	mg/L	0.122	187.3	mg/L	0.61	0.33%
K 766.490†	4311.3	2.163	mg/L	0.0089	10.82	mg/L	0.044	0.41%
Mg 279.077†	12009.0	8.124	mg/L	0.0195	40.62	mg/L	0.098	0.24%
Mn 257.610†	71040.9	1.964	mg/L	0.0059	9.819	mg/L	0.0296	0.30%
Mo 202.031†	38.2	0.00181	mg/L	0.000463	0.00907	mg/L	0.002313	25.50%
Na 589.592†	3743.9	0.2938	mg/L	0.00196	1.469	mg/L	0.0098	0.67%
Na 330.237†	17.1	0.4797	mg/L	0.12303	2.398	mg/L	0.6151	25.65%
Ni 231.604†	115.2	0.02795	mg/L	0.001566	0.1398	mg/L	0.00783	5.60%
Pb 220.353†	10596.9	1.331	mg/L	0.0094	6.656	mg/L	0.0468	0.70%
Sb 206.836†	50.4	0.01568	mg/L	0.001640	0.07841	mg/L	0.008202	10.46%
Se 196.026†	11.4	0.00763	mg/L	0.002070	0.03815	mg/L	0.010351	27.13%
Si 288.158†	3040.6	1.414	mg/L	0.0070	7.069	mg/L	0.0350	0.50%
Sn 189.927†	-0.5	0.00108	mg/L	0.000654	0.00542	mg/L	0.003271	60.32%
Sr 421.552†	71917.4	0.07677	mg/L	0.000607	0.3839	mg/L	0.00304	0.79%
Ti 334.903†	25427.0	1.220	mg/L	0.0064	6.098	mg/L	0.0319	0.52%
Tl 190.801†	6.7	0.00630	mg/L	0.001160	0.03148	mg/L	0.005798	18.42%
V 292.402†	8450.9	0.06299	mg/L	0.000452	0.3149	mg/L	0.00226	0.72%
Zn 206.200†	4823.1	1.190	mg/L	0.0066	5.949	mg/L	0.0331	0.56%

Sequence No.: 34
Sample ID: VR36 K SWC

Del

Dilution: 5.000000X

Autosampler Location: 378
Date Collected: 11/16/2012 5:43:00 PM
Data Type: Original

Nebulizer Parameters: VR36 K SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR36 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2455011.6	108.8	%	0.30				0.28%
ScR 361.383	317787.9	111.1	%	0.96				0.86%
Ag 328.068†	274.8	0.00157	mg/L	0.000132	0.00786	mg/L	0.000661	8.41%
Al 308.215†	50114.5	28.14	mg/L	0.156	140.7	mg/L	0.78	0.55%
As 188.979†	71.0	0.07414	mg/L	0.001060	0.3707	mg/L	0.00530	1.43%
B 249.677†	15.0	0.00189	mg/L	0.000316	0.00943	mg/L	0.001579	16.75%
Ba 233.527†	2009.2	0.4373	mg/L	0.00233	2.187	mg/L	0.0116	0.53%
Be 313.042†	548.1	0.00080	mg/L	0.000017	0.00398	mg/L	0.000083	2.08%
Ca 317.933†	171293.2	12.06	mg/L	0.063	60.30	mg/L	0.316	0.52%
Cd 228.802†	1373.7	0.04281	mg/L	0.000610	0.2140	mg/L	0.00305	1.43%
Co 228.616†	494.8	0.01104	mg/L	0.000103	0.05518	mg/L	0.000515	0.93%
Cr 267.716†	200.8	0.03271	mg/L	0.001069	0.1636	mg/L	0.00535	3.27%
Cu 324.752†	19663.4	0.07679	mg/L	0.001107	0.3839	mg/L	0.00554	1.44%
Fe 273.955†	44553.8	33.98	mg/L	0.059	169.9	mg/L	0.29	0.17%
K 766.490†	3603.1	1.808	mg/L	0.0225	9.039	mg/L	0.1126	1.25%
Mg 279.077†	10872.2	7.355	mg/L	0.0362	36.77	mg/L	0.181	0.49%
Mn 257.610†	54714.7	1.513	mg/L	0.0038	7.564	mg/L	0.0190	0.25%
Mo 202.031†	39.6	0.00184	mg/L	0.000099	0.00920	mg/L	0.000497	5.40%
Na 589.592†	3029.5	0.2378	mg/L	0.00141	1.189	mg/L	0.0071	0.59%
Na 330.237†	16.1	0.3616	mg/L	0.31850	1.808	mg/L	1.5925	88.09%
Ni 231.604†	109.6	0.02661	mg/L	0.001250	0.1330	mg/L	0.00625	4.70%
Pb 220.353†	16524.4	2.070	mg/L	0.0290	10.35	mg/L	0.145	1.40%
Sb 206.836†	127.4	0.03933	mg/L	0.000170	0.1966	mg/L	0.00085	0.43%
Se 196.026†	15.3	0.01027	mg/L	0.003255	0.05133	mg/L	0.016277	31.71%
Si 288.158†	2408.7	1.120	mg/L	0.0083	5.601	mg/L	0.0413	0.74%
Sn 189.927†	11.1	0.00461	mg/L	0.000966	0.02306	mg/L	0.004831	20.95%
Sr 421.552†	112043.0	0.1196	mg/L	0.00072	0.5980	mg/L	0.00362	0.61%
Ti 334.903†	27135.1	1.301	mg/L	0.0067	6.507	mg/L	0.0335	0.52%
Tl 190.801†	4.9	0.00526	mg/L	0.002105	0.02628	mg/L	0.010523	40.04%
V 292.402†	7631.0	0.05672	mg/L	0.000754	0.2836	mg/L	0.00377	1.33%
Zn 206.200†	6108.9	1.507	mg/L	0.0066	7.535	mg/L	0.0328	0.44%

Sequence No.: 35
Sample ID: VR36 L SWC

Dilution: 5.000000X

Del

Autosampler Location: 379
Date Collected: 11/16/2012 5:47:00 PM
Data Type: Original

Nebulizer Parameters: VR36 L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR36 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2463932.1	109.2	%	0.43				0.39%
ScR 361.383	317436.5	111.0	%	1.16				1.05%
Ag 328.068†	-84.0	-0.00045	mg/L	0.000249	-0.00227	mg/L	0.001245	54.77%
Al 308.215†	68567.7	38.50	mg/L	0.757	192.5	mg/L	3.79	1.97%
As 188.979†	-45.7	0.02130	mg/L	0.001197	0.1065	mg/L	0.00599	5.62%
B 249.677†	13.2	0.00165	mg/L	0.000761	0.00827	mg/L	0.003804	46.00%
Ba 233.527†	1646.0	0.3560	mg/L	0.00553	1.780	mg/L	0.0276	1.55%
Be 313.042†	682.3	0.00099	mg/L	0.000038	0.00496	mg/L	0.000190	3.83%
Ca 317.933†	101266.6	7.129	mg/L	0.1441	35.65	mg/L	0.720	2.02%
Cd 228.802†	122.6	0.00366	mg/L	0.000127	0.01830	mg/L	0.000636	3.48%
Co 228.616†	588.5	0.01301	mg/L	0.000199	0.06507	mg/L	0.000996	1.53%
Cr 267.716†	240.4	0.03932	mg/L	0.001082	0.1966	mg/L	0.00541	2.75%
Cu 324.752†	8466.7	0.03399	mg/L	0.000046	0.1700	mg/L	0.00023	0.14%
Fe 273.955†	54516.4	41.58	mg/L	0.907	207.9	mg/L	4.53	2.18%
K 766.490†	3819.3	1.916	mg/L	0.0348	9.581	mg/L	0.1739	1.82%
Mg 279.077†	13390.7	9.059	mg/L	0.1803	45.29	mg/L	0.901	1.99%
Mn 257.610†	48091.6	1.329	mg/L	0.0295	6.647	mg/L	0.1476	2.22%
Mo 202.031†	27.8	0.00131	mg/L	0.000071	0.00654	mg/L	0.000354	5.41%
Na 589.592†	3522.5	0.2765	mg/L	0.00576	1.382	mg/L	0.0288	2.08%
Na 330.237†	3.8	0.3433	mg/L	0.21084	1.716	mg/L	1.0542	61.42%
Ni 231.604†	131.5	0.03192	mg/L	0.001537	0.1596	mg/L	0.00768	4.81%
Pb 220.353†	445.5	0.06321	mg/L	0.000465	0.3160	mg/L	0.00233	0.74%
Sb 206.836†	5.0	0.00191	mg/L	0.001375	0.00954	mg/L	0.006874	72.02%
Se 196.026†	9.1	0.00605	mg/L	0.003292	0.03027	mg/L	0.016461	54.39%
Si 288.158†	1474.8	0.6863	mg/L	0.00808	3.432	mg/L	0.0404	1.18%
Sn 189.927†	-19.9	-0.00400	mg/L	0.000290	-0.02001	mg/L	0.001449	7.24%
Sr 421.552†	69675.4	0.07438	mg/L	0.001502	0.3719	mg/L	0.00751	2.02%
Ti 334.903†	33459.4	1.605	mg/L	0.0337	8.026	mg/L	0.1687	2.10%
Tl 190.801†	-2.4	0.00315	mg/L	0.000482	0.01576	mg/L	0.002411	15.30%
V 292.402†	9287.2	0.06893	mg/L	0.000406	0.3446	mg/L	0.00203	0.59%
Zn 206.200†	1887.7	0.4657	mg/L	0.00895	2.328	mg/L	0.0448	1.92%

Sequence No.: 36
Sample ID: CV 15
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/16/2012 5:51:01 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	2424829.3	107.4	%	0.53				0.49%
ScR 361.383	307722.5	107.6	%	0.83				0.77%
Ag 328.068†	156106.0	0.8836	mg/L	0.00348	0.8836	mg/L	0.00348	0.39%
Al 308.215†	3344.0	1.846	mg/L	0.0196	1.846	mg/L	0.0196	1.06%
As 188.979†	3389.9	1.817	mg/L	0.0132	1.817	mg/L	0.0132	0.72%
B 249.677†	6924.0	0.8828	mg/L	0.00776	0.8828	mg/L	0.00776	0.88%
Ba 233.527†	4193.7	0.9240	mg/L	0.00872	0.9240	mg/L	0.00872	0.94%
Be 313.042†	582352.7	0.8755	mg/L	0.00836	0.8755	mg/L	0.00836	0.96%
Ca 317.933†	25117.8	1.768	mg/L	0.0160	1.768	mg/L	0.0160	0.90%
Cd 228.802†	30411.5	0.9487	mg/L	0.00307	0.9487	mg/L	0.00307	0.32%
Co 228.616†	32864.0	0.9302	mg/L	0.00279	0.9302	mg/L	0.00279	0.30%
Cr 267.716†	5882.1	0.9465	mg/L	0.00831	0.9465	mg/L	0.00831	0.88%
Cu 324.752†	238545.1	0.9170	mg/L	0.00213	0.9170	mg/L	0.00213	0.23%
Fe 273.955†	2537.7	1.929	mg/L	0.0165	1.929	mg/L	0.0165	0.86%
K 766.490†	36047.5	18.09	mg/L	0.191	18.09	mg/L	0.191	1.06%
Mg 279.077†	2728.2	1.857	mg/L	0.0140	1.857	mg/L	0.0140	0.76%
Mn 257.610†	33231.0	0.9189	mg/L	0.00892	0.9189	mg/L	0.00892	0.97%
Mo 202.031†	19043.3	0.9489	mg/L	0.00681	0.9489	mg/L	0.00681	0.72%
Na 589.592†	564549.7	44.31	mg/L	0.380	44.31	mg/L	0.380	0.86%
Na 330.237†	1391.4	48.33	mg/L	0.570	48.33	mg/L	0.570	1.18%
Ni 231.604†	3652.6	0.8866	mg/L	0.00747	0.8866	mg/L	0.00747	0.84%
Pb 220.353†	14818.7	1.853	mg/L	0.0128	1.853	mg/L	0.0128	0.69%
Sb 206.836†	6384.0	1.952	mg/L	0.0107	1.952	mg/L	0.0107	0.55%
Se 196.026†	2685.7	1.803	mg/L	0.0150	1.803	mg/L	0.0150	0.83%
Si 288.158†	4112.8	1.910	mg/L	0.0208	1.910	mg/L	0.0208	1.09%
Sn 189.927†	3673.1	0.9436	mg/L	0.00695	0.9436	mg/L	0.00695	0.74%
Sr 421.552†	815742.9	0.8708	mg/L	0.00824	0.8708	mg/L	0.00824	0.95%
Ti 334.903†	19415.6	0.9305	mg/L	0.00733	0.9305	mg/L	0.00733	0.79%
Tl 190.801†	4574.8	1.782	mg/L	0.0073	1.782	mg/L	0.0073	0.41%
V 292.402†	119712.6	0.9183	mg/L	0.00258	0.9183	mg/L	0.00258	0.28%
Zn 206.200†	3719.2	0.9172	mg/L	0.00889	0.9172	mg/L	0.00889	0.97%

Sequence No.: 37
Sample ID: CB 15
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/16/2012 5:55:54 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	2414997.1	107.0	%	0.32				0.30%
ScR 361.383	310646.2	108.6	%	1.20				1.11%
Ag 328.068†	27.8	0.00016	mg/L	0.000175	0.00016	mg/L	0.000175	111.27%
Al 308.215†	18.7	0.01048	mg/L	0.001708	0.01048	mg/L	0.001708	16.30%
As 188.979†	-0.2	-0.00009	mg/L	0.002324	-0.00009	mg/L	0.002324	>999.9%
B 249.677†	6.5	0.00083	mg/L	0.000642	0.00083	mg/L	0.000642	77.01%
Ba 233.527†	-3.8	-0.00083	mg/L	0.000657	-0.00083	mg/L	0.000657	79.30%
Be 313.042†	40.7	0.00006	mg/L	0.000041	0.00006	mg/L	0.000041	67.27%
Ca 317.933†	23.0	0.00162	mg/L	0.000503	0.00162	mg/L	0.000503	31.11%
Cd 228.802†	-20.9	-0.00066	mg/L	0.000150	-0.00066	mg/L	0.000150	22.71%
Co 228.616†	-2.3	-0.00007	mg/L	0.000272	-0.00007	mg/L	0.000272	404.27%
Cr 267.716†	-2.6	-0.00042	mg/L	0.000659	-0.00042	mg/L	0.000659	155.14%
Cu 324.752†	-241.8	-0.00093	mg/L	0.000132	-0.00093	mg/L	0.000132	14.18%
Fe 273.955†	7.5	0.00574	mg/L	0.002586	0.00574	mg/L	0.002586	45.02%
K 766.490†	-21.2	-0.01065	mg/L	0.003656	-0.01065	mg/L	0.003656	34.33%
Mg 279.077†	-1.7	-0.00117	mg/L	0.001650	-0.00117	mg/L	0.001650	141.41%
Mn 257.610†	-11.3	-0.00031	mg/L	0.000108	-0.00031	mg/L	0.000108	34.57%
Mo 202.031†	9.5	0.00047	mg/L	0.000161	0.00047	mg/L	0.000161	34.02%
Na 589.592†	73.8	0.00579	mg/L	0.002073	0.00579	mg/L	0.002073	35.78%
Na 330.237†	4.9	0.1698	mg/L	0.08817	0.1698	mg/L	0.08817	51.92%
Ni 231.604†	-2.2	-0.00054	mg/L	0.001131	-0.00054	mg/L	0.001131	209.90%
Pb 220.353†	2.7	0.00034	mg/L	0.000918	0.00034	mg/L	0.000918	267.00%
Sb 206.836†	2.9	0.00088	mg/L	0.000764	0.00088	mg/L	0.000764	87.01%
Se 196.026†	3.7	0.00246	mg/L	0.001747	0.00246	mg/L	0.001747	71.06%
Si 288.158†	-3.0	-0.00140	mg/L	0.001048	-0.00140	mg/L	0.001048	74.97%
Sn 189.927†	-0.4	-0.00011	mg/L	0.001111	-0.00011	mg/L	0.001111	982.56%
Sr 421.552†	94.4	0.00010	mg/L	0.000015	0.00010	mg/L	0.000015	14.49%
Ti 334.903†	21.7	0.00104	mg/L	0.000861	0.00104	mg/L	0.000861	82.74%
Tl 190.801†	5.0	0.00194	mg/L	0.001571	0.00194	mg/L	0.001571	80.79%
V 292.402†	-51.2	-0.00039	mg/L	0.000225	-0.00039	mg/L	0.000225	57.08%
Zn 206.200†	-4.4	-0.00108	mg/L	0.000323	-0.00108	mg/L	0.000323	29.99%

Sequence No.: 38
Sample ID: ~~CRI~~ 222222

Autosampler Location: 380
Date Collected: 11/16/2012 6:00:10 PM
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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2443074.3	108.2	%	0.30				0.27%
ScR 361.383	311015.0	108.8	%	0.78				0.72%
Ag 328.068†	510.1	0.00289	mg/L	0.000211	0.00289	mg/L	0.000211	7.30%
Al 308.215†	85.6	0.04795	mg/L	0.010360	0.04795	mg/L	0.010360	21.61%
As 188.979†	84.0	0.04459	mg/L	0.000920	0.04459	mg/L	0.000920	2.06%
B 249.677†	142.2	0.01815	mg/L	0.000135	0.01815	mg/L	0.000135	0.74%
Ba 233.527†	9.7	0.00213	mg/L	0.000111	0.00213	mg/L	0.000111	5.20%
Be 313.042†	555.2	0.00083	mg/L	0.000014	0.00083	mg/L	0.000014	1.66%
Ca 317.933†	632.4	0.04452	mg/L	0.001581	0.04452	mg/L	0.001581	3.55%
Cd 228.802†	48.8	0.00125	mg/L	0.000146	0.00125	mg/L	0.000146	11.68%
Co 228.616†	111.4	0.00315	mg/L	0.000138	0.00315	mg/L	0.000138	4.37%
Cr 267.716†	29.4	0.00474	mg/L	0.000459	0.00474	mg/L	0.000459	9.70%
Cu 324.752†	201.4	0.00077	mg/L	0.000028	0.00077	mg/L	0.000028	3.56%
Fe 273.955†	66.5	0.05068	mg/L	0.000148	0.05068	mg/L	0.000148	0.29%
K 766.490†	867.4	0.4352	mg/L	0.00838	0.4352	mg/L	0.00838	1.93%
Mg 279.077†	65.6	0.04452	mg/L	0.006977	0.04452	mg/L	0.006977	15.67%
Mn 257.610†	20.2	0.00056	mg/L	0.000043	0.00056	mg/L	0.000043	7.72%
Mo 202.031†	92.0	0.00458	mg/L	0.000241	0.00458	mg/L	0.000241	5.25%
Na 589.592†	5433.4	0.4264	mg/L	0.00400	0.4264	mg/L	0.00400	0.94%
Na 330.237†	17.1	0.5953	mg/L	0.31785	0.5953	mg/L	0.31785	53.39%
Ni 231.604†	35.2	0.00855	mg/L	0.001080	0.00855	mg/L	0.001080	12.64%
Pb 220.353†	145.6	0.01821	mg/L	0.000408	0.01821	mg/L	0.000408	2.24%
Sb 206.836†	151.6	0.04638	mg/L	0.001057	0.04638	mg/L	0.001057	2.28%
Se 196.026†	72.6	0.04876	mg/L	0.002597	0.04876	mg/L	0.002597	5.33%
Si 288.158†	122.0	0.05664	mg/L	0.002019	0.05664	mg/L	0.002019	3.57%
Sn 189.927†	33.4	0.00860	mg/L	0.000473	0.00860	mg/L	0.000473	5.50%
Sr 421.552†	842.5	0.00090	mg/L	0.000038	0.00090	mg/L	0.000038	4.26%
Ti 334.903†	102.2	0.00490	mg/L	0.000254	0.00490	mg/L	0.000254	5.19%
Tl 190.801†	117.9	0.04608	mg/L	0.000591	0.04608	mg/L	0.000591	1.28%
V 292.402†	318.6	0.00245	mg/L	0.000066	0.00245	mg/L	0.000066	2.71%
Zn 206.200†	30.7	0.00758	mg/L	0.000813	0.00758	mg/L	0.000813	10.72%

Sequence No.: 39
Sample ID: ~~ICSA~~ 2 2 2 2 2 2
Dilution: 1.000000X
at 11-20

Autosampler Location: 381
Date Collected: 11/16/2012 6:04:27 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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2369559.5	105.0	%	0.46				0.44%
ScR 361.383	302634.9	105.8	%	1.37				1.29%
Ag 328.068†	-164.1	-0.00093	mg/L	0.000152	-0.00093	mg/L	0.000152	16.39%
Al 308.215†	324096.6	182.0	mg/L	2.60	182.0	mg/L	2.60	1.43%
As 188.979†	36.0	0.01395	mg/L	0.001142	0.01395	mg/L	0.001142	8.18%
B 249.677†	-18.2	-0.00232	mg/L	0.001888	-0.00232	mg/L	0.001888	81.35%
Ba 233.527†	125.5	-0.00249	mg/L	0.001029	-0.00249	mg/L	0.001029	41.28%
Be 313.042†	34.9	0.00005	mg/L	0.000024	0.00005	mg/L	0.000024	47.42%
Ca 317.933†	1298647.2	91.43	mg/L	1.648	91.43	mg/L	1.648	1.80%
Cd 228.802†	33.3	-0.00083	mg/L	0.000222	-0.00083	mg/L	0.000222	26.79%
Co 228.616†	58.0	-0.00076	mg/L	0.000192	-0.00076	mg/L	0.000192	25.07%
Cr 267.716†	6.6	-0.00040	mg/L	0.001282	-0.00040	mg/L	0.001282	323.26%
Cu 324.752†	-2239.4	-0.00124	mg/L	0.000054	-0.00124	mg/L	0.000054	4.35%
Fe 273.955†	241487.7	184.2	mg/L	3.15	184.2	mg/L	3.15	1.71%
K 766.490†	-22.1	-0.01111	mg/L	0.014900	-0.01111	mg/L	0.014900	134.14%
Mg 279.077†	134225.5	90.92	mg/L	1.584	90.92	mg/L	1.584	1.74%
Mn 257.610†	11.1	0.00031	mg/L	0.000106	0.00031	mg/L	0.000106	34.32%
Mo 202.031†	35.5	0.00078	mg/L	0.000192	0.00078	mg/L	0.000192	24.58%
Na 589.592†	184.2	0.01446	mg/L	0.001437	0.01446	mg/L	0.001437	9.94%
Na 330.237†	0.7	0.02594	mg/L	0.250688	0.02594	mg/L	0.250688	966.48%
Ni 231.604†	-1.4	-0.00032	mg/L	0.000077	-0.00032	mg/L	0.000077	24.10%
Pb 220.353†	-279.0	0.00111	mg/L	0.000426	0.00111	mg/L	0.000426	38.23%
Sb 206.836†	12.6	0.00372	mg/L	0.001661	0.00372	mg/L	0.001661	44.59%
Se 196.026†	27.6	0.01856	mg/L	0.006319	0.01856	mg/L	0.006319	34.04%
Si 288.158†	-27.6	-0.00180	mg/L	0.003005	-0.00180	mg/L	0.003005	167.10%
Sn 189.927†	-70.4	-0.00674	mg/L	0.001165	-0.00674	mg/L	0.001165	17.27%
Sr 421.552†	3325.3	0.00355	mg/L Cont.	0.000078	0.00355	mg/L	0.000078	2.19%
Ti 334.903†	140.2	0.00236	mg/L	0.000372	0.00236	mg/L	0.000372	15.73%
Tl 190.801†	-42.1	0.00319	mg/L	0.002854	0.00319	mg/L	0.002854	89.37%
V 292.402†	1430.0	0.00448	mg/L	0.000157	0.00448	mg/L	0.000157	3.49%
Zn 206.200†	10.4	0.00255	mg/L	0.001252	0.00255	mg/L	0.001252	49.08%

Sequence No.: 40
Sample ID: ~~ICSAB~~ 2 2 2 2 2 2
Dilution: 1.000000X

Autosampler Location: 382
Date Collected: 11/16/2012 6:08:44 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	2432718.9	107.8	%	0.58				0.54%
ScR 361.383	308561.0	107.9	%	0.83				0.77%
Ag 328.068†	156780.9	0.8875	mg/L	0.00240	0.8875	mg/L	0.00240	0.27%
Al 308.215†	319442.4	179.4	mg/L	2.28	179.4	mg/L	2.28	1.27%
As 188.979†	1744.3	0.9176	mg/L	0.00444	0.9176	mg/L	0.00444	0.48%
B 249.677†	-8.0	-0.00286	mg/L	0.000261	-0.00286	mg/L	0.000261	9.11%
Ba 233.527†	4288.6	0.9150	mg/L	0.00446	0.9150	mg/L	0.00446	0.49%
Be 313.042†	597676.5	0.8985	mg/L	0.01429	0.8985	mg/L	0.01429	1.59%
Ca 317.933†	1302685.8	91.71	mg/L	1.246	91.71	mg/L	1.246	1.36%
Cd 228.802†	30156.4	0.9447	mg/L	0.00427	0.9447	mg/L	0.00427	0.45%
Co 228.616†	31562.3	0.8925	mg/L	0.00329	0.8925	mg/L	0.00329	0.37%
Cr 267.716†	5885.1	0.9457	mg/L	0.00672	0.9457	mg/L	0.00672	0.71%
Cu 324.752†	239887.6	0.9300	mg/L	0.00218	0.9300	mg/L	0.00218	0.23%
Fe 273.955†	241810.2	184.4	mg/L	2.52	184.4	mg/L	2.52	1.37%
K 766.490†	-82.3	-0.04130	mg/L	0.018252	-0.04130	mg/L	0.018252	44.20%
Mg 279.077†	134237.5	90.93	mg/L	1.264	90.93	mg/L	1.264	1.39%
Mn 257.610†	33121.6	0.9157	mg/L	0.01252	0.9157	mg/L	0.01252	1.37%
Mo 202.031†	31.7	0.00053	mg/L	0.000265	0.00053	mg/L	0.000265	49.63%
Na 589.592†	283.2	0.02223	mg/L	0.000192	0.02223	mg/L	0.000192	0.86%
Na 330.237†	7.7	-0.01802	mg/L	0.098149	-0.01802	mg/L	0.098149	544.55%
Ni 231.604†	3545.8	0.8605	mg/L	0.00633	0.8605	mg/L	0.00633	0.74%
Pb 220.353†	6864.6	0.8938	mg/L	0.00072	0.8938	mg/L	0.00072	0.08%
Sb 206.836†	3094.3	0.9361	mg/L	0.00096	0.9361	mg/L	0.00096	0.10%
Se 196.026†	1358.2	0.9113	mg/L	0.00533	0.9113	mg/L	0.00533	0.58%
Si 288.158†	-32.7	-0.00076	mg/L	0.001724	-0.00076	mg/L	0.001724	226.49%
Sn 189.927†	-72.5	-0.00681	mg/L	0.001158	-0.00681	mg/L	0.001158	17.02%
Sr 421.552†	3297.3	0.00352	mg/L Conf.	0.000048	0.00352	mg/L	0.000048	1.35%
Ti 334.903†	131.6	0.00175	mg/L	0.000839	0.00175	mg/L	0.000839	47.96%
Tl 190.801†	2099.6	0.8325	mg/L	0.00087	0.8325	mg/L	0.00087	0.10%
V 292.402†	117153.0	0.8923	mg/L	0.00419	0.8923	mg/L	0.00419	0.47%
Zn 206.200†	3517.1	0.8676	mg/L	0.00822	0.8676	mg/L	0.00822	0.95%

Sequence No.: 41
Sample ID: CV 16

Autosampler Location: 7
Date Collected: 11/16/2012 6:12:34 PM
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.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2425805.3	107.5	%	0.12				0.11%
ScR 361.383	307398.6	107.5	%	1.44				1.34%
Ag 328.068†	155820.1	0.8820	mg/L	0.00080	0.8820	mg/L	0.00080	0.09%
Al 308.215†	3305.9	1.824	mg/L	0.0370	1.824	mg/L	0.0370	2.03%
As 188.979†	3414.8	1.831	mg/L	0.0051	1.831	mg/L	0.0051	0.28%
B 249.677†	6798.1	0.8668	mg/L	0.01299	0.8668	mg/L	0.01299	1.50%
Ba 233.527†	4150.1	0.9144	mg/L	0.01646	0.9144	mg/L	0.01646	1.80%
Be 313.042†	593758.4	0.8926	mg/L	0.01944	0.8926	mg/L	0.01944	2.18%
Ca 317.933†	26785.9	1.886	mg/L	0.0347	1.886	mg/L	0.0347	1.84%
Cd 228.802†	30584.3	0.9541	mg/L	0.00109	0.9541	mg/L	0.00109	0.11%
Co 228.616†	32981.1	0.9334	mg/L	0.00201	0.9334	mg/L	0.00201	0.22%
Cr 267.716†	5824.1	0.9372	mg/L	0.01839	0.9372	mg/L	0.01839	1.96%
Cu 324.752†	237535.8	0.9131	mg/L	0.00089	0.9131	mg/L	0.00089	0.10%
Fe 273.955†	2569.8	1.954	mg/L	0.0336	1.954	mg/L	0.0336	1.72%
K 766.490†	36325.1	18.22	mg/L	0.358	18.22	mg/L	0.358	1.97%
Mg 279.077†	2726.9	1.856	mg/L	0.0372	1.856	mg/L	0.0372	2.01%
Mn 257.610†	34686.2	0.9591	mg/L	0.01646	0.9591	mg/L	0.01646	1.72%
Mo 202.031†	19127.0	0.9531	mg/L	0.00097	0.9531	mg/L	0.00097	0.10%
Na 589.592†	565888.7	44.41	mg/L	0.913	44.41	mg/L	0.913	2.05%
Na 330.237†	1350.2	46.90	mg/L	0.769	46.90	mg/L	0.769	1.64%
Ni 231.604†	3634.3	0.8821	mg/L	0.01504	0.8821	mg/L	0.01504	1.71%
Pb 220.353†	14925.6	1.866	mg/L	0.0043	1.866	mg/L	0.0043	0.23%
Sb 206.836†	6417.2	1.962	mg/L	0.0032	1.962	mg/L	0.0032	0.16%
Se 196.026†	2702.3	1.814	mg/L	0.0010	1.814	mg/L	0.0010	0.06%
Si 288.158†	4068.7	1.890	mg/L	0.0285	1.890	mg/L	0.0285	1.51%
Sn 189.927†	3718.6	0.9553	mg/L	0.00250	0.9553	mg/L	0.00250	0.26%
Sr 421.552†	819816.3	0.8752	mg/L	0.01810	0.8752	mg/L	0.01810	2.07%
Ti 334.903†	20137.0	0.9651	mg/L	0.01481	0.9651	mg/L	0.01481	1.53%
Tl 190.801†	4582.8	1.785	mg/L	0.0054	1.785	mg/L	0.0054	0.30%
V 292.402†	119856.2	0.9193	mg/L	0.00218	0.9193	mg/L	0.00218	0.24%
Zn 206.200†	3733.7	0.9208	mg/L	0.01631	0.9208	mg/L	0.01631	1.77%

Sequence No.: 42
Sample ID: CB 16
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/16/2012 6:16:41 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	2465816.8	109.2	%	0.66				0.61%
ScR 361.383	313787.1	109.7	%	0.43				0.39%
Ag 328.068†	42.4	0.00024	mg/L	0.000165	0.00024	mg/L	0.000165	69.02%
Al 308.215†	7.7	0.00432	mg/L	0.001797	0.00432	mg/L	0.001797	41.63%
As 188.979†	1.8	0.00099	mg/L	0.001984	0.00099	mg/L	0.001984	201.18%
B 249.677†	4.3	0.00055	mg/L	0.000427	0.00055	mg/L	0.000427	77.71%
Ba 233.527†	-2.2	-0.00048	mg/L	0.000795	-0.00048	mg/L	0.000795	164.19%
Be 313.042†	39.8	0.00006	mg/L	0.000043	0.00006	mg/L	0.000043	72.38%
Ca 317.933†	39.9	0.00281	mg/L	0.000968	0.00281	mg/L	0.000968	34.47%
Cd 228.802†	-26.3	-0.00084	mg/L	0.000098	-0.00084	mg/L	0.000098	11.73%
Co 228.616†	0.4	0.00001	mg/L	0.000085	0.00001	mg/L	0.000085	763.38%
Cr 267.716†	-7.3	-0.00118	mg/L	0.000407	-0.00118	mg/L	0.000407	34.63%
Cu 324.752†	-291.6	-0.00112	mg/L	0.000103	-0.00112	mg/L	0.000103	9.17%
Fe 273.955†	6.8	0.00517	mg/L	0.002541	0.00517	mg/L	0.002541	49.13%
K 766.490†	-54.2	-0.02719	mg/L	0.016990	-0.02719	mg/L	0.016990	62.49%
Mg 279.077†	-3.6	-0.00242	mg/L	0.003914	-0.00242	mg/L	0.003914	161.44%
Mn 257.610†	-18.1	-0.00050	mg/L	0.000164	-0.00050	mg/L	0.000164	32.71%
Mo 202.031†	7.5	0.00037	mg/L	0.000094	0.00037	mg/L	0.000094	25.05%
Na 589.592†	68.0	0.00534	mg/L	0.006151	0.00534	mg/L	0.006151	115.21%
Na 330.237†	5.3	0.1861	mg/L	0.09696	0.1861	mg/L	0.09696	52.11%
Ni 231.604†	0.4	0.00010	mg/L	0.000561	0.00010	mg/L	0.000561	585.86%
Pb 220.353†	0.8	0.00010	mg/L	0.000717	0.00010	mg/L	0.000717	719.53%
Sb 206.836†	2.9	0.00090	mg/L	0.001366	0.00090	mg/L	0.001366	152.30%
Se 196.026†	4.5	0.00304	mg/L	0.003391	0.00304	mg/L	0.003391	111.71%
Si 288.158†	-0.2	-0.00012	mg/L	0.005249	-0.00012	mg/L	0.005249	>999.9%
Sn 189.927†	0.3	0.00009	mg/L	0.000402	0.00009	mg/L	0.000402	463.56%
Sr 421.552†	103.0	0.00011	mg/L	0.000044	0.00011	mg/L	0.000044	39.99%
Ti 334.903†	7.0	0.00033	mg/L	0.001570	0.00033	mg/L	0.001570	469.35%
Tl 190.801†	8.8	0.00344	mg/L	0.001039	0.00344	mg/L	0.001039	30.25%
V 292.402†	-37.5	-0.00029	mg/L	0.000109	-0.00029	mg/L	0.000109	37.50%
Zn 206.200†	-1.5	-0.00036	mg/L	0.000486	-0.00036	mg/L	0.000486	134.40%

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11-12-12 Analysis Date: 11-19-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2993-3
		2			2992-12
		3			-13
		4			-14
		5			2993-1
		ICV			2988-6
		ICB			
		CRI			
		ICSA			V>2RL(0.00616mg/L) -N.R
		ICSAB			
		Hi PUR QC7			Fail high-remake 2993-7
		Spex QC21			-8
		DI Check			
		CCV1			
		CCB1			
		Hi PUR QC7			2993-10
		Spex QC21			-11
		CCV2			
		CCB2			
		VS75 MB	PHN		
		VS67 MB	LEN	5	
		VS75 A	PHN		
		B			
		VS67 B	LEN	5	

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

LR Date: — Page: 2 of 6

All corrections made by analyst unless otherwise noted. BA 11-19-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS67 ADUP	LEN	5 ✓	
		A	↓	↓	
		ASPK	↓	↓ ✓	
		VS75 MBSPK	PHN	✓	Spiked as for soil
		CCV3			
		CCB3			
		VR36 E	SWC	5	
		F	↓	↓	
		G			
		H			
		I			
		J			
		K			
		L	↓	↓	
		CCV4			
		CCB4			
		CRI			
		ICSA			V > 2xRL (0.00646 mg/L)
		ICSAB			
		CCV5			
		CCB5			End VR36
		VS62 MB1	TWC	✓	
		A BA	↓	11/20/12	
		B	↓		

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

LR Date: — Page: 3 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		V562 C	TWC		
		↓ MB1SPK	↓	✓	
		CCV6			Sl. noisy - levels OK
		CCB6			
		V595 MB	TWC		
		V591 MB1	LEN	5	
		B			
		ADUP		✓	
		A			
		↓ ASPK	↓	↓ ✓	
		V595 ADUP	TWC	✓	
		A			
		ASPK		✓	
		↓ MBSPK	↓	✓	
		CCV7			
		CCB7			
		V591 MB2	LEN	5	
		C			
		D			
		E			
		F			
		G			
		↓ H	↓	↓	
		CCV8			

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

LR Date: — Page: 4 of 6

All corrections made by analyst unless otherwise noted. BA 11/20/12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCB8			C_{Cu} > RL (0.0505 mg/L) – A.N.
		VR35 MB1	SWC	2	C_{Cu} > RL (0.0654 mg/L) – A.N.
		B	↓	5	
		C	↓	↓	
		D	↓	↓	
		A-L	↓	25 ✓	
		A	↓	5	
		ADUP	↓	↓ ✓	
		ASPK	↓	↓ ✓	
		~~ZZZZZZ~~ ~~APOST~~	↓	↓ ✓	(0.08 mL ICP Spike 2977-9) Al Fe STL ↓
		MB1SPK	↓	2 ✓	
		CCV9			
		CCB9			
		VR35 E	SWC	5	
		F	↓	↓	
		G	↓	↓	
		H	↓	↓	
		I	↓	↓	
		J	↓	↓	
		K	↓	↓	
		L	↓	↓	
		VR37 B	↓	↓	
		CCV10			
		CCB10			

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

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
		CRI			
		ICSA			
		ICSAB			
		CCV11			
		CCB11			End VR35
		VR37 MB1	SWC	2	
		C		5	
		D		↓	
		E		↓	
		A-L		25 ✓	Mg >10% d.F.
		A		5	
		ADUP		✓ ↓	
		~~ASPK~~ ZZZZZZ ~~APOST~~		✓ ↓ (0.98mL ICP Spike 2977-9)	Al Fe STL ↓
		MB1SPK	↓	2 ✓	
		CCV12			
		CCB12			
		VR37 F	SWC	5	
		G		↓	
		H			
		I			
		J			
		K			
		L	↓	↓	

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-19-12 Analyst: BA

LR Date: — Page: 6 of 10

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VR37 M	SVC	5	
		N	↓	↓	
		O	↓	↓	
		CCV13			
		CCB13			Mn (0.00147mg/L) - AN.
		CRI			Mn >150%
		ICSA			
		ICSAB			
		CCV14			
		CCB14			End Pkg
		Rinse/DI			
		RA	11/20/12		

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-19-12

ICP-2	Analyst BA 11-20-12	Peer AT 11-20-12	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	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	See log
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
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. - VR35, VR37

Analysis Begun

Start Time: 11/19/2012 9:39:58 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121119
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: 11/19/2012 9:39:59 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	2384701.4	4608.89	0.19%	100.0	%
ScR 361.383	305379.5	3155.68	1.03%	100.0	%
Ag 328.068†	-101.1	16.84	16.66%	[0.00]	mg/L
Al 308.215†	171.8	2.75	1.60%	[0.00]	mg/L
As 188.979†	-10.9	3.68	33.76%	[0.00]	mg/L
B 249.677†	35.4	5.86	16.54%	[0.00]	mg/L
Ba 233.527†	19.7	3.07	15.60%	[0.00]	mg/L
Be 313.042†	925.5	25.79	2.79%	[0.00]	mg/L
Ca 317.933†	162.2	2.76	1.70%	[0.00]	mg/L
Cd 228.802†	290.1	1.84	0.64%	[0.00]	mg/L
Co 228.616†	-74.7	3.87	5.18%	[0.00]	mg/L
Cr 267.716†	-97.4	3.04	3.12%	[0.00]	mg/L
Cu 324.752†	2355.3	28.96	1.23%	[0.00]	mg/L
Fe 273.955†	15.2	0.92	6.08%	[0.00]	mg/L
K 766.490†	501.5	23.15	4.61%	[0.00]	mg/L
Mg 279.077†	85.3	7.13	8.36%	[0.00]	mg/L
Mn 257.610†	143.0	2.67	1.87%	[0.00]	mg/L
Mo 202.031†	61.4	1.24	2.02%	[0.00]	mg/L
Na 589.592†	-362.5	41.48	11.44%	[0.00]	mg/L
Na 330.237†	-193.4	5.61	2.90%	[0.00]	mg/L
Ni 231.604†	-27.9	8.73	31.30%	[0.00]	mg/L
Pb 220.353†	61.0	4.49	7.36%	[0.00]	mg/L
Sb 206.836†	67.6	0.89	1.32%	[0.00]	mg/L
Se 196.026†	-48.7	2.76	5.67%	[0.00]	mg/L
Si 288.158†	64.4	6.34	9.86%	[0.00]	mg/L
Sn 189.927†	-3.2	1.68	52.85%	[0.00]	mg/L
Sr 421.552†	455.0	18.66	4.10%	[0.00]	mg/L
Ti 334.903†	-37.6	5.29	14.07%	[0.00]	mg/L
Tl 190.801†	-33.7	2.10	6.24%	[0.00]	mg/L
V 292.402†	136.6	19.02	13.92%	[0.00]	mg/L
Zn 206.200†	20.9	0.77	3.68%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/19/2012 9:44:14 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2424350.4	41023.98	1.69%	101.7	%
ScR 361.383	308023.9	3424.76	1.11%	100.9	%
Ba 233.527†	41913.0	615.41	1.47%	[10]	mg/L
Cd 228.802†	291901.6	6441.87	2.21%	[10]	mg/L
Co 228.616†	335724.5	6899.11	2.05%	[10]	mg/L
Cr 267.716†	59426.5	981.66	1.65%	[10]	mg/L
Cu 324.752†	2450995.7	53580.29	2.19%	[10]	mg/L
Mn 257.610†	357486.4	6314.41	1.77%	[10]	mg/L
V 292.402†	1202264.8	24815.64	2.06%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/19/2012 9:46:00 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	Conc.	Calib Units
ScA 357.253	2381421.3	15458.64	0.65%	99.86	%
ScR 361.383	302156.2	6667.97	2.21%	98.94	%
Ag 328.068†	161047.9	1042.51	0.65%	[1.0]	mg/L
As 188.979†	16890.6	95.67	0.57%	[10]	mg/L
B 249.677†	72462.1	1080.23	1.49%	[10]	mg/L
Be 313.042†	3087209.7	70886.29	2.30%	[5.0]	mg/L
Na 589.592†	583586.6	13871.49	2.38%	[50]	mg/L
Ni 231.604†	37385.5	458.31	1.23%	[10]	mg/L
Pb 220.353†	74649.5	471.06	0.63%	[10]	mg/L
Se 196.026†	13506.2	52.13	0.39%	[10]	mg/L
Sr 421.552†	4277096.3	75714.50	1.77%	[5]	mg/L
Tl 190.801†	22861.0	130.43	0.57%	[10]	mg/L
Zn 206.200†	35757.2	401.92	1.12%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/19/2012 9:48:33 AM
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	2409729.6	13380.70	0.56%	101.0	%
ScR 361.383	303278.2	3194.36	1.05%	99.31	%
Mo 202.031†	192376.5	1662.99	0.86%	[10]	mg/L
Sb 206.836†	31393.2	308.51	0.98%	[10]	mg/L
Si 288.158†	20838.8	275.10	1.32%	[10]	mg/L
Sn 189.927†	37243.7	354.36	0.95%	[10]	mg/L
Ti 334.903†	207657.2	3676.19	1.77%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/19/2012 9:50:48 AM
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	2270252.2	10594.76	0.47%	95.20	%
ScR 361.383	304345.1	7096.65	2.33%	99.66	%
Al 308.215†	50120.1	654.78	1.31%	[30]	mg/L
Ca 317.933†	399022.8	11938.26	2.99%	[30]	mg/L
Fe 273.955†	131279.7	3641.30	2.77%	[100]	mg/L
K 766.490†	190774.3	5931.68	3.11%	[100]	mg/L
Mg 279.077†	40817.1	481.11	1.18%	[30]	mg/L
Na 330.237†	2794.7	26.25	0.94%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	161000	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1671	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1689	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7246	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4191	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	617400	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	13300	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	29190	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	33570	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5943	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	245100	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1313	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1908	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1361	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	35750	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	19240	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	11670	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	27.95	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3739	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7465	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3139	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1351	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2084	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3724	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	855400	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	20770	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2286	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	120200	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3576	0.00000	1.000000	

Analysis Begun

Start Time: 11/19/2012 9:53:58 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121119
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: 11/19/2012 9:53:59 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	2377518.9	99.70	%	0.390				0.39%
ScR 361.383	304072.1	99.57	%	0.483				0.49%
Ag 328.068†	169374.1	1.052	mg/L	0.0039	1.052	mg/L	0.0039	0.37%
Al 308.215†	3449.2	2.030	mg/L	0.0158	2.030	mg/L	0.0158	0.78%
As 188.979†	3485.1	2.087	mg/L	0.0041	2.087	mg/L	0.0041	0.20%
B 249.677†	7335.8	1.011	mg/L	0.0072	1.011	mg/L	0.0072	0.71%
Ba 233.527†	4280.1	1.021	mg/L	0.0045	1.021	mg/L	0.0045	0.44%
Be 313.042†	613442.2	0.9933	mg/L	0.00850	0.9933	mg/L	0.00850	0.86%
Ca 317.933†	25859.9	1.944	mg/L	0.0121	1.944	mg/L	0.0121	0.62%
Cd 228.802†	31087.5	1.052	mg/L	0.0030	1.052	mg/L	0.0030	0.28%
Co 228.616†	34364.4	1.022	mg/L	0.0021	1.022	mg/L	0.0021	0.21%
Cr 267.716†	6106.2	1.027	mg/L	0.0052	1.027	mg/L	0.0052	0.51%
Cu 324.752†	249248.6	1.017	mg/L	0.0016	1.017	mg/L	0.0016	0.16%
Fe 273.955†	2708.1	2.056	mg/L	0.0174	2.056	mg/L	0.0174	0.85%
K 766.490†	38272.8	20.06	mg/L	0.132	20.06	mg/L	0.132	0.66%
Mg 279.077†	2750.3	2.029	mg/L	0.0114	2.029	mg/L	0.0114	0.56%
Mn 257.610†	35577.4	0.9956	mg/L	0.01117	0.9956	mg/L	0.01117	1.12%
Mo 202.031†	19399.4	1.008	mg/L	0.0013	1.008	mg/L	0.0013	0.13%
Na 589.592†	599499.3	51.36	mg/L	0.405	51.36	mg/L	0.405	0.79%
Na 330.237†	1463.5	52.25	mg/L	0.382	52.25	mg/L	0.382	0.73%
Ni 231.604†	3796.3	1.016	mg/L	0.0069	1.016	mg/L	0.0069	0.68%
Pb 220.353†	15025.1	2.014	mg/L	0.0029	2.014	mg/L	0.0029	0.14%
Sb 206.836†	6699.7	2.133	mg/L	0.0037	2.133	mg/L	0.0037	0.17%
Se 196.026†	2767.0	2.048	mg/L	0.0077	2.048	mg/L	0.0077	0.38%
Si 288.158†	4283.7	2.055	mg/L	0.0169	2.055	mg/L	0.0169	0.82%
Sn 189.927†	3801.8	1.022	mg/L	0.0011	1.022	mg/L	0.0011	0.11%
Sr 421.552†	863628.4	1.010	mg/L	0.0082	1.010	mg/L	0.0082	0.82%
Ti 334.903†	20584.9	0.9901	mg/L	0.00916	0.9901	mg/L	0.00916	0.93%
Tl 190.801†	4673.7	2.036	mg/L	0.0010	2.036	mg/L	0.0010	0.05%
V 292.402†	125243.6	1.046	mg/L	0.0033	1.046	mg/L	0.0033	0.32%
Zn 206.200†	3752.0	1.049	mg/L	0.0066	1.049	mg/L	0.0066	0.63%

Sequence No.: 2
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 9:58:02 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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2383180.6	99.94	%	0.197				0.20%
ScR 361.383	306428.3	100.3	%	1.76	.			1.75%
Ag 328.068†	-2.7	-0.00002	mg/L	0.000133	-0.00002	mg/L	0.000133	798.67%
Al 308.215†	5.4	0.00320	mg/L	0.002724	0.00320	mg/L	0.002724	85.02%
As 188.979†	-0.7	-0.00043	mg/L	0.002074	-0.00043	mg/L	0.002074	485.90%
B 249.677†	26.5	0.00366	mg/L	0.000208	0.00366	mg/L	0.000208	5.67%
Ba 233.527†	2.4	0.00057	mg/L	0.001001	0.00057	mg/L	0.001001	175.19%
Be 313.042†	141.6	0.00023	mg/L	0.000034	0.00023	mg/L	0.000034	14.72%
Ca 317.933†	4.4	0.00033	mg/L	0.000720	0.00033	mg/L	0.000720	216.24%
Cd 228.802†	-5.0	-0.00017	mg/L	0.000088	-0.00017	mg/L	0.000088	52.83%
Co 228.616†	1.8	0.00006	mg/L	0.000096	0.00006	mg/L	0.000096	172.36%
Cr 267.716†	3.4	0.00057	mg/L	0.000755	0.00057	mg/L	0.000755	133.59%
Cu 324.752†	-35.4	-0.00015	mg/L	0.000117	-0.00015	mg/L	0.000117	80.41%
Fe 273.955†	3.5	0.00267	mg/L	0.000912	0.00267	mg/L	0.000912	34.20%
K 766.490†	-26.7	-0.01399	mg/L	0.011391	-0.01399	mg/L	0.011391	81.44%
Mg 279.077†	3.7	0.00273	mg/L	0.003165	0.00273	mg/L	0.003165	116.01%
Mn 257.610†	7.9	0.00022	mg/L	0.000068	0.00022	mg/L	0.000068	30.52%
Mo 202.031†	34.6	0.00180	mg/L	0.000201	0.00180	mg/L	0.000201	11.20%
Na 589.592†	117.5	0.01006	mg/L	0.003961	0.01006	mg/L	0.003961	39.36%
Na 330.237†	-1.4	-0.05180	mg/L	0.208199	-0.05180	mg/L	0.208199	401.96%
Ni 231.604†	4.3	0.00115	mg/L	0.001232	0.00115	mg/L	0.001232	107.11%
Pb 220.353†	8.8	0.00118	mg/L	0.000908	0.00118	mg/L	0.000908	77.23%
Sb 206.836†	8.7	0.00277	mg/L	0.000687	0.00277	mg/L	0.000687	24.82%
Se 196.026†	-3.6	-0.00264	mg/L	0.001056	-0.00264	mg/L	0.001056	40.02%
Si 288.158†	4.0	0.00194	mg/L	0.003470	0.00194	mg/L	0.003470	178.63%
Sn 189.927†	-0.1	-0.00002	mg/L	0.000887	-0.00002	mg/L	0.000887	>999.9%
Sr 421.552†	183.2	0.00021	mg/L	0.000024	0.00021	mg/L	0.000024	11.19%
Ti 334.903†	-7.2	-0.00035	mg/L	0.000565	-0.00035	mg/L	0.000565	162.26%
Tl 190.801†	-5.0	-0.00217	mg/L	0.002699	-0.00217	mg/L	0.002699	124.46%
V 292.402†	21.6	0.00018	mg/L	0.000130	0.00018	mg/L	0.000130	70.94%
Zn 206.200†	0.7	0.00020	mg/L	0.000715	0.00020	mg/L	0.000715	350.47%

Sequence No.: 3
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/19/2012 10:02:17 AM
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	2414763.0	101.3	%	0.52				0.51%
ScR 361.383	308434.4	101.0	%	0.71				0.71%
Ag 328.068†	453.0	0.00281	mg/L	0.000092	0.00281	mg/L	0.000092	3.27%
Al 308.215†	85.7	0.05113	mg/L	0.003000	0.05113	mg/L	0.003000	5.87%
As 188.979†	88.5	0.05250	mg/L	0.001896	0.05250	mg/L	0.001896	3.61%
B 249.677†	166.3	0.02295	mg/L	0.000656	0.02295	mg/L	0.000656	2.86%
Ba 233.527†	12.8	0.00303	mg/L	0.001323	0.00303	mg/L	0.001323	43.60%
Be 313.042†	620.9	0.00100	mg/L	0.000041	0.00100	mg/L	0.000041	4.10%
Ca 317.933†	662.6	0.04982	mg/L	0.000350	0.04982	mg/L	0.000350	0.70%
Cd 228.802†	64.8	0.00188	mg/L	0.000029	0.00188	mg/L	0.000029	1.55%
Co 228.616†	118.9	0.00353	mg/L	0.000124	0.00353	mg/L	0.000124	3.50%
Cr 267.716†	34.9	0.00587	mg/L	0.000382	0.00587	mg/L	0.000382	6.50%
Cu 324.752†	413.8	0.00169	mg/L	0.000143	0.00169	mg/L	0.000143	8.46%
Fe 273.955†	71.0	0.05410	mg/L	0.000888	0.05410	mg/L	0.000888	1.64%
K 766.490†	903.4	0.4735	mg/L	0.00213	0.4735	mg/L	0.00213	0.45%
Mg 279.077†	65.4	0.04810	mg/L	0.002890	0.04810	mg/L	0.002890	6.01%
Mn 257.610†	44.8	0.00126	mg/L	0.000095	0.00126	mg/L	0.000095	7.53%
Mo 202.031†	109.3	0.00568	mg/L	0.000156	0.00568	mg/L	0.000156	2.75%
Na 589.592†	5784.7	0.4956	mg/L	0.00844	0.4956	mg/L	0.00844	1.70%
Na 330.237†	14.2	0.5045	mg/L	0.11668	0.5045	mg/L	0.11668	23.13%
Ni 231.604†	44.0	0.01177	mg/L	0.000511	0.01177	mg/L	0.000511	4.35%
Pb 220.353†	148.2	0.01987	mg/L	0.000695	0.01987	mg/L	0.000695	3.50%
Sb 206.836†	159.1	0.05070	mg/L	0.001794	0.05070	mg/L	0.001794	3.54%
Se 196.026†	69.5	0.05144	mg/L	0.000679	0.05144	mg/L	0.000679	1.32%
Si 288.158†	129.5	0.06213	mg/L	0.003913	0.06213	mg/L	0.003913	6.30%
Sn 189.927†	38.9	0.01048	mg/L	0.000696	0.01048	mg/L	0.000696	6.64%
Sr 421.552†	938.1	0.00110	mg/L	0.000049	0.00110	mg/L	0.000049	4.42%
Ti 334.903†	98.5	0.00474	mg/L	0.000533	0.00474	mg/L	0.000533	11.26%
Tl 190.801†	112.2	0.04907	mg/L	0.000908	0.04907	mg/L	0.000908	1.85%
V 292.402†	358.9	0.00301	mg/L	0.000185	0.00301	mg/L	0.000185	6.16%
Zn 206.200†	34.3	0.00958	mg/L	0.000747	0.00958	mg/L	0.000747	7.80%

Sequence No.: 4
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/19/2012 10:06:33 AM
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	2359704.1	98.95	%	0.735				0.74%
ScR 361.383	303340.2	99.33	%	1.221				1.23%
Ag 328.068†	-175.2	-0.00108	mg/L	0.000318	-0.00108	mg/L	0.000318	29.35%
Al 308.215†	331992.4	198.7	mg/L	2.22	198.7	mg/L	2.22	1.12%
As 188.979†	36.8	0.01625	mg/L	0.003604	0.01625	mg/L	0.003604	22.18%
B 249.677†	0.0	0.00000	mg/L	0.002319	0.00000	mg/L	0.002319	>999.9%
Ba 233.527†	128.3	-0.00132	mg/L	0.000591	-0.00132	mg/L	0.000591	44.79%
Be 313.042†	93.6	0.00015	mg/L	0.000032	0.00015	mg/L	0.000032	21.75%
Ca 317.933†	1305604.9	98.16	mg/L	1.280	98.16	mg/L	1.280	1.30%
Cd 228.802†	56.2	-0.00008	mg/L	0.000066	-0.00008	mg/L	0.000066	87.36%
Co 228.616†	68.2	-0.00052	mg/L	0.000126	-0.00052	mg/L	0.000126	24.26%
Cr 267.716†	10.7	-0.00029	mg/L	0.000599	-0.00029	mg/L	0.000599	203.40%
Cu 324.752†	-2067.2	-0.00067	mg/L	0.000044	-0.00067	mg/L	0.000044	6.50%
Fe 273.955†	256097.1	195.1	mg/L	2.63	195.1	mg/L	2.63	1.35%
K 766.490†	8.2	0.00428	mg/L	0.015665	0.00428	mg/L	0.015665	365.86%
Mg 279.077†	139595.8	102.5	mg/L	1.77	102.5	mg/L	1.77	1.72%
Mn 257.610†	44.2	0.00120	mg/L	0.000213	0.00120	mg/L	0.000213	17.74%
Mo 202.031†	46.5	0.00136	mg/L	0.000503	0.00136	mg/L	0.000503	37.08%
Na 589.592†	196.0	0.01679	mg/L	0.002658	0.01679	mg/L	0.002658	15.83%
Na 330.237†	-13.9	-0.4969	mg/L	0.09031	-0.4969	mg/L	0.09031	18.17%
Ni 231.604†	3.4	0.00092	mg/L	0.001526	0.00092	mg/L	0.001526	165.36%
Pb 220.353†	-277.9	0.00230	mg/L	0.000204	0.00230	mg/L	0.000204	8.86%
Sb 206.836†	25.1	0.00785	mg/L	0.000754	0.00785	mg/L	0.000754	9.61%
Se 196.026†	18.3	0.01355	mg/L	0.003461	0.01355	mg/L	0.003461	25.54%
Si 288.158†	-29.2	-0.00162	mg/L	0.000647	-0.00162	mg/L	0.000647	39.83%
Sn 189.927†	-66.2	-0.00563	mg/L	0.001628	-0.00563	mg/L	0.001628	28.93%
Sr 421.552†	3479.7	0.00407	mg/L Conf.	0.000068	0.00407	mg/L	0.000068	1.68%
Ti 334.903†	124.9	0.00133	mg/L	0.000082	0.00133	mg/L	0.000082	6.16%
Tl 190.801†	-60.4	-0.00563	mg/L	0.003080	-0.00563	mg/L	0.003080	54.75%
V 292.402†	1559.2	0.00616	mg/L	0.000082	0.00616	mg/L	0.000082	1.34%
Zn 206.200†	13.2	0.00370	mg/L	0.000491	0.00370	mg/L	0.000491	13.26%

Sequence No.: 5
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/19/2012 10:10:49 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	220.0 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	2377996.8	99.72	%	0.146				0.15%
ScR 361.383	304156.7	99.60	%	2.577				2.59%
Ag 328.068†	162910.9	1.012	mg/L	0.0009	1.012	mg/L	0.0009	0.09%
Al 308.215†	330603.2	197.9	mg/L	4.71	197.9	mg/L	4.71	2.38%
As 188.979†	1776.4	1.045	mg/L	0.0027	1.045	mg/L	0.0027	0.26%
B 249.677†	7.3	-0.00105	mg/L	0.000749	-0.00105	mg/L	0.000749	71.25%
Ba 233.527†	4344.4	1.004	mg/L	0.0219	1.004	mg/L	0.0219	2.18%
Be 313.042†	619134.8	1.003	mg/L	0.0222	1.003	mg/L	0.0222	2.22%
Ca 317.933†	1317804.0	99.08	mg/L	2.372	99.08	mg/L	2.372	2.39%
Cd 228.802†	30428.9	1.034	mg/L	0.0039	1.034	mg/L	0.0039	0.37%
Co 228.616†	33646.2	0.9994	mg/L	0.00303	0.9994	mg/L	0.00303	0.30%
Cr 267.716†	6086.3	1.022	mg/L	0.0211	1.022	mg/L	0.0211	2.07%
Cu 324.752†	250009.1	1.028	mg/L	0.0013	1.028	mg/L	0.0013	0.12%
Fe 273.955†	258234.7	196.7	mg/L	4.72	196.7	mg/L	4.72	2.40%
K 766.490†	-106.0	-0.05557	mg/L	0.020398	-0.05557	mg/L	0.020398	36.71%
Mg 279.077†	134928.3	99.07	mg/L	2.335	99.07	mg/L	2.335	2.36%
Mn 257.610†	35090.5	0.9818	mg/L	0.02400	0.9818	mg/L	0.02400	2.44%
Mo 202.031†	46.1	0.00127	mg/L	0.000058	0.00127	mg/L	0.000058	4.53%
Na 589.592†	363.3	0.03113	mg/L	0.000366	0.03113	mg/L	0.000366	1.17%
Na 330.237†	-4.0	-0.4659	mg/L	0.18631	-0.4659	mg/L	0.18631	39.99%
Ni 231.604†	3662.8	0.9799	mg/L	0.02300	0.9799	mg/L	0.02300	2.35%
Pb 220.353†	7113.0	0.9927	mg/L	0.00414	0.9927	mg/L	0.00414	0.42%
Sb 206.836†	3221.0	1.015	mg/L	0.0033	1.015	mg/L	0.0033	0.33%
Se 196.026†	1390.0	1.028	mg/L	0.0089	1.028	mg/L	0.0089	0.86%
Si 288.158†	-30.4	0.00114	mg/L	0.002664	0.00114	mg/L	0.002664	232.89%
Sn 189.927†	-68.9	-0.00574	mg/L	0.001991	-0.00574	mg/L	0.001991	34.69%
Sr 421.552†	3461.0	0.00405	mg/L	0.000089	0.00405	mg/L	0.000089	2.19%
Ti 334.903†	120.3	0.00086	mg/L	0.000118	0.00086	mg/L	0.000118	13.71%
Tl 190.801†	2122.3	0.9400	mg/L	0.00600	0.9400	mg/L	0.00600	0.64%
V 292.402†	118508.2	0.9834	mg/L	0.00121	0.9834	mg/L	0.00121	0.12%
Zn 206.200†	3520.2	0.9845	mg/L	0.02170	0.9845	mg/L	0.02170	2.20%

Cont.

Sequence No.: 6
Sample ID: Hi Pur QC 7
Analyst: BA
Dilution: 1.000000X

Remake

Autosampler Location: 304
Date Collected: 11/19/2012 10:15:40 AM
Data Type: Original

Nebulizer Parameters: Hi Pur QC 7

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: Hi Pur QC 7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2424498.0	101.7	%	0.86				0.85%
ScR 361.383	312541.4	102.3	%	0.07				0.07%
Ag 328.068†	208567.7	1.295	mg/L	0.0037	1.295	mg/L	0.0037	0.29%
Al 308.215†	4310.3	2.580	mg/L	0.0244	2.580	mg/L	0.0244	0.95%
As 188.979†	-0.8	-0.00051	mg/L	0.000921	-0.00051	mg/L	0.000921	180.53%
B 249.677†	18525.1	2.557	mg/L	0.0365	2.557	mg/L	0.0365	1.43%
Ba 233.527†	10864.3	2.592	mg/L	0.0290	2.592	mg/L	0.0290	1.12%
Be 313.042†	57.3	0.00009	mg/L	0.000025	0.00009	mg/L	0.000025	27.38%
Ca 317.933†	357.2	0.02685	mg/L	0.001267	0.02685	mg/L	0.001267	4.72%
Cd 228.802†	-1.5	-0.00005	mg/L	0.000062	-0.00005	mg/L	0.000062	130.25%
Co 228.616†	17.2	0.00031	mg/L	0.000227	0.00031	mg/L	0.000227	73.42%
Cr 267.716†	-0.0	-0.00001	mg/L	0.000581	-0.00001	mg/L	0.000581	>999.9%
Cu 324.752†	-41.1	-0.00017	mg/L	0.000063	-0.00017	mg/L	0.000063	38.00%
Fe 273.955†	35.0	0.02667	mg/L	0.005058	0.02667	mg/L	0.005058	18.96%
K 766.490†	48791.5	25.58	mg/L	0.088	25.58	mg/L	0.088	0.34%
Mg 279.077†	14.1	0.01035	mg/L	0.010393	0.01035	mg/L	0.010393	100.44%
Mn 257.610†	10.4	0.00028	mg/L	0.000098	0.00028	mg/L	0.000098	35.47%
Mo 202.031†	2.6	0.00013	mg/L	0.000259	0.00013	mg/L	0.000259	194.75%
Na 589.592†	30290.9	2.595	mg/L	0.0085	2.595	mg/L	0.0085	0.33%
Na 330.237†	66.4	2.377	mg/L	0.0213	2.377	mg/L	0.0213	0.90%
Ni 231.604†	4.2	0.00114	mg/L	0.001567	0.00114	mg/L	0.001567	137.96%
Pb 220.353†	27.6	0.00432	mg/L	0.000942	0.00432	mg/L	0.000942	21.83%
Sb 206.836†	3.9	0.00123	mg/L	0.001290	0.00123	mg/L	0.001290	104.60%
Se 196.026†	-0.4	-0.00031	mg/L	0.001147	-0.00031	mg/L	0.001147	367.23%
Si 288.158†	5313.5	2.550	mg/L	0.0299	2.550	mg/L	0.0299	1.17%
Sn 189.927†	0.4	0.00011	mg/L	0.000460	0.00011	mg/L	0.000460	416.29%
Sr 421.552†	94.0	0.00011	mg/L	0.000006	0.00011	mg/L	0.000006	5.22%
Ti 334.903†	-11.4	-0.00055	mg/L	0.000872	-0.00055	mg/L	0.000872	158.90%
Tl 190.801†	-3.4	-0.00149	mg/L	0.000687	-0.00149	mg/L	0.000687	46.23%
V 292.402†	17.5	0.00014	mg/L	0.000049	0.00014	mg/L	0.000049	33.88%
Zn 206.200†	-0.6	-0.00017	mg/L	0.000868	-0.00017	mg/L	0.000868	503.56%

Sequence No.: 7
Sample ID: Spex QC 21
Analyst: BA
Dilution: 1.000000X

Remake

Autosampler Location: 305
Date Collected: 11/19/2012 10:19:54 AM
Data Type: Original

Nebulizer Parameters: Spex QC 21

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Spex QC 21

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2431765.6	102.0	%	0.53				0.52%
ScR 361.383	309438.0	101.3	%	0.95				0.94%
Ag 328.068†	-96.7	0.00009	mg/L	0.000167	0.00009	mg/L	0.000167	179.08%
Al 308.215†	161.4	0.01643	mg/L	0.004038	0.01643	mg/L	0.004038	24.57%
As 188.979†	4000.9	2.425	mg/L	0.0243	2.425	mg/L	0.0243	1.00%
B 249.677†	66.8	0.00699	mg/L	0.000671	0.00699	mg/L	0.000671	9.60%
Ba 233.527†	6.1	0.00070	mg/L	0.000743	0.00070	mg/L	0.000743	105.41%
Be 313.042†	1457831.5	2.361	mg/L	0.0134	2.361	mg/L	0.0134	0.57%
Ca 317.933†	31103.9	2.339	mg/L	0.0336	2.339	mg/L	0.0336	1.44%
Cd 228.802†	71963.9	2.451	mg/L	0.0206	2.451	mg/L	0.0206	0.84%
Co 228.616†	81359.8	2.419	mg/L	0.0230	2.419	mg/L	0.0230	0.95%
Cr 267.716†	14084.9	2.369	mg/L	0.0340	2.369	mg/L	0.0340	1.44%
Cu 324.752†	573687.8	2.340	mg/L	0.0065	2.340	mg/L	0.0065	0.28%
Fe 273.955†	3260.2	2.466	mg/L	0.0144	2.466	mg/L	0.0144	0.58%
K 766.490†	-61.3	-0.03212	mg/L	0.013000	-0.03212	mg/L	0.013000	40.47%
Mg 279.077†	3294.5	2.439	mg/L	0.0178	2.439	mg/L	0.0178	0.73%
Mn 257.610†	85504.4	2.392	mg/L	0.0373	2.392	mg/L	0.0373	1.56%
Mo 202.031†	44495.0	2.313	mg/L	0.0240	2.313	mg/L	0.0240	1.04%
Na 589.592†	208.0	0.01782	mg/L	0.002378	0.01782	mg/L	0.002378	13.35%
Na 330.237†	-18.4	-0.9440	mg/L	0.10612	-0.9440	mg/L	0.10612	11.24%
Ni 231.604†	8962.3	2.398	mg/L	0.0176	2.398	mg/L	0.0176	0.73%
Pb 220.353†	17575.3	2.356	mg/L	0.0271	2.356	mg/L	0.0271	1.15%
Sb 206.836†	7809.7	2.464	mg/L	0.0226	2.464	mg/L	0.0226	0.92%
Se 196.026†	3259.8	2.411	mg/L	0.0191	2.411	mg/L	0.0191	0.79%
Si 288.158†	108.6	0.06510	mg/L	0.012122	0.06510	mg/L	0.012122	18.62%
Sn 189.927†	-14.4	-0.00204	mg/L	0.000369	-0.00204	mg/L	0.000369	18.13%
Sr 421.552†	2023500.0	2.366	mg/L	0.0147	2.366	mg/L	0.0147	0.62%
Ti 334.903†	47867.5	2.303	mg/L	0.0356	2.303	mg/L	0.0356	1.54%
Tl 190.801†	5541.3	2.404	mg/L	0.0165	2.404	mg/L	0.0165	0.68%
V 292.402†	289064.1	2.415	mg/L	0.0195	2.415	mg/L	0.0195	0.81%
Zn 206.200†	8795.5	2.459	mg/L	0.0117	2.459	mg/L	0.0117	0.48%

Sequence No.: 8
Sample ID: DI Check
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 306
Date Collected: 11/19/2012 10:24:10 AM
Data Type: Original

Nebulizer Parameters: DI Check

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: DI Check

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2489832.6	104.4	%	1.38				1.33%
ScR 361.383	315297.5	103.2	%	0.73				0.70%
Ag 328.068†	-18.1	-0.00011	mg/L	0.000036	-0.00011	mg/L	0.000036	31.68%
Al 308.215†	21.0	0.01255	mg/L	0.016007	0.01255	mg/L	0.016007	127.59%
As 188.979†	2.2	0.00125	mg/L	0.001728	0.00125	mg/L	0.001728	138.79%
B 249.677†	13.7	0.00189	mg/L	0.000783	0.00189	mg/L	0.000783	41.48%
Ba 233.527†	0.9	0.00020	mg/L	0.001139	0.00020	mg/L	0.001139	563.21%
Be 313.042†	308.4	0.00050	mg/L	0.000127	0.00050	mg/L	0.000127	25.47%
Ca 317.933†	82.8	0.00623	mg/L	0.000267	0.00623	mg/L	0.000267	4.29%
Cd 228.802†	0.1	-0.00000	mg/L	0.000170	-0.00000	mg/L	0.000170	>999.9%
Co 228.616†	21.1	0.00063	mg/L	0.000166	0.00063	mg/L	0.000166	26.38%
Cr 267.716†	6.2	0.00104	mg/L	0.001036	0.00104	mg/L	0.001036	99.58%
Cu 324.752†	-85.8	-0.00035	mg/L	0.000221	-0.00035	mg/L	0.000221	63.13%
Fe 273.955†	25.7	0.01957	mg/L	0.001812	0.01957	mg/L	0.001812	9.26%
K 766.490†	-28.6	-0.01497	mg/L	0.004562	-0.01497	mg/L	0.004562	30.48%
Mg 279.077†	10.8	0.00797	mg/L	0.003446	0.00797	mg/L	0.003446	43.22%
Mn 257.610†	18.7	0.00052	mg/L	0.000168	0.00052	mg/L	0.000168	32.00%
Mo 202.031†	51.8	0.00269	mg/L	0.000390	0.00269	mg/L	0.000390	14.51%
Na 589.592†	78.5	0.00673	mg/L	0.001426	0.00673	mg/L	0.001426	21.19%
Na 330.237†	-15.6	-0.5568	mg/L	0.34016	-0.5568	mg/L	0.34016	61.09%
Ni 231.604†	10.2	0.00273	mg/L	0.001323	0.00273	mg/L	0.001323	48.40%
Pb 220.353†	0.2	0.00003	mg/L	0.001284	0.00003	mg/L	0.001284	>999.9%
Sb 206.836†	-9.5	-0.00304	mg/L	0.000435	-0.00304	mg/L	0.000435	14.29%
Se 196.026†	7.6	0.00564	mg/L	0.003716	0.00564	mg/L	0.003716	65.93%
Si 288.158†	-11.8	-0.00566	mg/L	0.004228	-0.00566	mg/L	0.004228	74.74%
Sn 189.927†	-0.7	-0.00019	mg/L	0.000201	-0.00019	mg/L	0.000201	104.69%
Sr 421.552†	389.8	0.00046	mg/L	0.000158	0.00046	mg/L	0.000158	34.69%
Ti 334.903†	-16.8	-0.00081	mg/L	0.000330	-0.00081	mg/L	0.000330	40.70%
Tl 190.801†	2.6	0.00114	mg/L	0.002664	0.00114	mg/L	0.002664	234.64%
V 292.402†	32.2	0.00027	mg/L	0.000219	0.00027	mg/L	0.000219	80.11%
Zn 206.200†	1.2	0.00033	mg/L	0.000327	0.00033	mg/L	0.000327	100.39%

Sequence No.: 9
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 10:28:24 AM
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	2415049.7	101.3	%	0.35				0.34%
ScR 361.383	307253.5	100.6	%	2.29				2.28%
Ag 328.068†	167155.7	1.038	mg/L	0.0053	1.038	mg/L	0.0053	0.51%
Al 308.215†	3409.7	2.006	mg/L	0.0284	2.006	mg/L	0.0284	1.42%
As 188.979†	3462.2	2.075	mg/L	0.0071	2.075	mg/L	0.0071	0.34%
B 249.677†	7228.7	0.9967	mg/L	0.01431	0.9967	mg/L	0.01431	1.44%
Ba 233.527†	4219.9	1.006	mg/L	0.0162	1.006	mg/L	0.0162	1.61%
Be 313.042†	618170.2	1.001	mg/L	0.0243	1.001	mg/L	0.0243	2.42%
Ca 317.933†	27108.2	2.038	mg/L	0.0333	2.038	mg/L	0.0333	1.63%
Cd 228.802†	30982.2	1.049	mg/L	0.0043	1.049	mg/L	0.0043	0.41%
Co 228.616†	34173.5	1.016	mg/L	0.0067	1.016	mg/L	0.0067	0.66%
Cr 267.716†	6051.8	1.018	mg/L	0.0129	1.018	mg/L	0.0129	1.27%
Cu 324.752†	246565.6	1.006	mg/L	0.0014	1.006	mg/L	0.0014	0.14%
Fe 273.955†	2716.4	2.062	mg/L	0.0328	2.062	mg/L	0.0328	1.59%
K 766.490†	37978.8	19.91	mg/L	0.552	19.91	mg/L	0.552	2.77%
Mg 279.077†	2730.2	2.014	mg/L	0.0256	2.014	mg/L	0.0256	1.27%
Mn 257.610†	37011.1	1.036	mg/L	0.0161	1.036	mg/L	0.0161	1.55%
Mo 202.031†	19193.0	0.9976	mg/L	0.00316	0.9976	mg/L	0.00316	0.32%
Na 589.592†	594418.9	50.93	mg/L	1.140	50.93	mg/L	1.140	2.24%
Na 330.237†	1437.8	51.33	mg/L	0.483	51.33	mg/L	0.483	0.94%
Ni 231.604†	3757.9	1.005	mg/L	0.0103	1.005	mg/L	0.0103	1.03%
Pb 220.353†	15223.7	2.040	mg/L	0.0098	2.040	mg/L	0.0098	0.48%
Sb 206.836†	6634.1	2.113	mg/L	0.0096	2.113	mg/L	0.0096	0.45%
Se 196.026†	2757.3	2.040	mg/L	0.0139	2.040	mg/L	0.0139	0.68%
Si 288.158†	4221.9	2.025	mg/L	0.0285	2.025	mg/L	0.0285	1.41%
Sn 189.927†	3784.8	1.018	mg/L	0.0056	1.018	mg/L	0.0056	0.55%
Sr 421.552†	861351.8	1.007	mg/L	0.0248	1.007	mg/L	0.0248	2.46%
Ti 334.903†	21314.8	1.025	mg/L	0.0138	1.025	mg/L	0.0138	1.34%
Tl 190.801†	4612.5	2.009	mg/L	0.0060	2.009	mg/L	0.0060	0.30%
V 292.402†	123959.1	1.035	mg/L	0.0043	1.035	mg/L	0.0043	0.42%
Zn 206.200†	3755.8	1.050	mg/L	0.0179	1.050	mg/L	0.0179	1.71%

Sequence No.: 10
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 10:32:45 AM
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	2426216.9	101.7	%	0.75				0.74%
ScR 361.383	311466.8	102.0	%	0.47				0.46%
Ag 328.068†	-9.7	-0.00006	mg/L	0.000025	-0.00006	mg/L	0.000025	40.93%
Al 308.215†	17.1	0.01021	mg/L	0.005126	0.01021	mg/L	0.005126	50.23%
As 188.979†	1.6	0.00093	mg/L	0.001375	0.00093	mg/L	0.001375	148.54%
B 249.677†	13.8	0.00190	mg/L	0.000116	0.00190	mg/L	0.000116	6.10%
Ba 233.527†	-1.0	-0.00023	mg/L	0.000227	-0.00023	mg/L	0.000227	97.02%
Be 313.042†	125.9	0.00020	mg/L	0.000059	0.00020	mg/L	0.000059	29.01%
Ca 317.933†	37.9	0.00285	mg/L	0.001086	0.00285	mg/L	0.001086	38.07%
Cd 228.802†	-4.2	-0.00015	mg/L	0.000155	-0.00015	mg/L	0.000155	104.38%
Co 228.616†	8.4	0.00025	mg/L	0.000054	0.00025	mg/L	0.000054	21.57%
Cr 267.716†	-0.3	-0.00004	mg/L	0.000791	-0.00004	mg/L	0.000791	>999.9%
Cu 324.752†	-73.5	-0.00030	mg/L	0.000089	-0.00030	mg/L	0.000089	29.60%
Fe 273.955†	11.6	0.00887	mg/L	0.001476	0.00887	mg/L	0.001476	16.65%
K 766.490†	-21.0	-0.01100	mg/L	0.011515	-0.01100	mg/L	0.011515	104.70%
Mg 279.077†	-3.7	-0.00269	mg/L	0.003999	-0.00269	mg/L	0.003999	148.62%
Mn 257.610†	7.5	0.00021	mg/L	0.000067	0.00021	mg/L	0.000067	31.92%
Mo 202.031†	19.4	0.00101	mg/L	0.000135	0.00101	mg/L	0.000135	13.43%
Na 589.592†	74.7	0.00640	mg/L	0.002642	0.00640	mg/L	0.002642	41.27%
Na 330.237†	-7.3	-0.2612	mg/L	0.14059	-0.2612	mg/L	0.14059	53.82%
Ni 231.604†	2.4	0.00064	mg/L	0.000287	0.00064	mg/L	0.000287	44.94%
Pb 220.353†	8.9	0.00119	mg/L	0.000146	0.00119	mg/L	0.000146	12.27%
Sb 206.836†	5.0	0.00160	mg/L	0.001285	0.00160	mg/L	0.001285	80.26%
Se 196.026†	-2.6	-0.00189	mg/L	0.001726	-0.00189	mg/L	0.001726	91.37%
Si 288.158†	5.7	0.00276	mg/L	0.002314	0.00276	mg/L	0.002314	83.98%
Sn 189.927†	-1.0	-0.00027	mg/L	0.000874	-0.00027	mg/L	0.000874	325.78%
Sr 421.552†	172.9	0.00020	mg/L	0.000073	0.00020	mg/L	0.000073	36.35%
Ti 334.903†	-25.6	-0.00124	mg/L	0.000409	-0.00124	mg/L	0.000409	33.15%
Tl 190.801†	-0.8	-0.00036	mg/L	0.001846	-0.00036	mg/L	0.001846	505.88%
V 292.402†	-7.0	-0.00006	mg/L	0.000107	-0.00006	mg/L	0.000107	185.56%
Zn 206.200†	1.8	0.00050	mg/L	0.000458	0.00050	mg/L	0.000458	91.11%

Analysis Begun

Start Time: 11/19/2012 10:52:53 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1119.sif
Batch ID:
Results Data Set: I2121119
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Hi Pur QC 7
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 304
Date Collected: 11/19/2012 10:52:54 AM
Data Type: Original

Nebulizer Parameters: Hi Pur QC 7

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Hi Pur QC 7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2483769.8	104.2	%	0.22				0.22%
ScR 361.383	319547.4	104.6	%	0.60				0.57%
Ag 328.068†	155660.1	0.9665	mg/L	0.00395	0.9665	mg/L	0.00395	0.41%
Al 308.215†	3215.6	1.925	mg/L	0.0086	1.925	mg/L	0.0086	0.45%
As 188.979†	5.3	0.00313	mg/L	0.003290	0.00313	mg/L	0.003290	105.18%
B 249.677†	13989.4	1.931	mg/L	0.0016	1.931	mg/L	0.0016	0.08%
Ba 233.527†	8121.1	1.938	mg/L	0.0029	1.938	mg/L	0.0029	0.15%
Be 313.042†	-10.4	-0.00002	mg/L	0.000024	-0.00002	mg/L	0.000024	143.38%
Ca 317.933†	53.7	0.00404	mg/L	0.000240	0.00404	mg/L	0.000240	5.94%
Cd 228.802†	-9.2	-0.00033	mg/L	0.000087	-0.00033	mg/L	0.000087	26.09%
Co 228.616†	11.3	0.00018	mg/L	0.000148	0.00018	mg/L	0.000148	79.79%
Cr 267.716†	6.0	0.00100	mg/L	0.000339	0.00100	mg/L	0.000339	33.81%
Cu 324.752†	-176.9	-0.00072	mg/L	0.000120	-0.00072	mg/L	0.000120	16.68%
Fe 273.955†	0.6	0.00045	mg/L	0.001301	0.00045	mg/L	0.001301	287.02%
K 766.490†	36581.4	19.18	mg/L	0.176	19.18	mg/L	0.176	0.92%
Mg 279.077†	-9.5	-0.00701	mg/L	0.003991	-0.00701	mg/L	0.003991	56.90%
Mn 257.610†	1.9	0.00004	mg/L	0.000042	0.00004	mg/L	0.000042	98.40%
Mo 202.031†	4.5	0.00023	mg/L	0.000273	0.00023	mg/L	0.000273	116.67%
Na 589.592†	22517.4	1.929	mg/L	0.0160	1.929	mg/L	0.0160	0.83%
Na 330.237†	54.9	1.966	mg/L	0.3855	1.966	mg/L	0.3855	19.61%
Ni 231.604†	7.3	0.00194	mg/L	0.000750	0.00194	mg/L	0.000750	38.55%
Pb 220.353†	-2.5	0.00013	mg/L	0.000857	0.00013	mg/L	0.000857	668.80%
Sb 206.836†	-3.8	-0.00121	mg/L	0.001012	-0.00121	mg/L	0.001012	83.45%
Se 196.026†	-5.3	-0.00393	mg/L	0.002487	-0.00393	mg/L	0.002487	63.28%
Si 288.158†	4013.0	1.926	mg/L	0.0022	1.926	mg/L	0.0022	0.11%
Sn 189.927†	0.1	0.00001	mg/L	0.000448	0.00001	mg/L	0.000448	>999.9%
Sr 421.552†	12.3	0.00001	mg/L	0.000048	0.00001	mg/L	0.000048	329.84%
Ti 334.903†	-17.3	-0.00083	mg/L	0.000367	-0.00083	mg/L	0.000367	44.13%
Tl 190.801†	1.6	0.00068	mg/L	0.001566	0.00068	mg/L	0.001566	228.64%
V 292.402†	6.7	0.00006	mg/L	0.000304	0.00006	mg/L	0.000304	501.07%
Zn 206.200†	-5.6	-0.00157	mg/L	0.000380	-0.00157	mg/L	0.000380	24.26%

Sequence No.: 2
Sample ID: Spex QC 21
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 305
Date Collected: 11/19/2012 10:57:11 AM
Data Type: Original

Nebulizer Parameters: Spex QC 21

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Spex QC 21

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2452986.4	102.9	%	0.56				0.54%
ScR 361.383	314615.0	103.0	%	0.62				0.60%
Ag 328.068†	-52.4	0.00026	mg/L	0.000076	0.00026	mg/L	0.000076	29.89%
Al 308.215†	115.7	0.00197	mg/L	0.003696	0.00197	mg/L	0.003696	187.55%
As 188.979†	3364.2	2.039	mg/L	0.0030	2.039	mg/L	0.0030	0.15%
B 249.677†	99.4	0.01185	mg/L	0.001643	0.01185	mg/L	0.001643	13.87%
Ba 233.527†	5.6	0.00073	mg/L	0.001174	0.00073	mg/L	0.001174	161.57%
Be 313.042†	1222877.7	1.980	mg/L	0.0110	1.980	mg/L	0.0110	0.56%
Ca 317.933†	26301.5	1.977	mg/L	0.0101	1.977	mg/L	0.0101	0.51%
Cd 228.802†	60415.4	2.058	mg/L	0.0192	2.058	mg/L	0.0192	0.94%
Co 228.616†	68299.7	2.031	mg/L	0.0209	2.031	mg/L	0.0209	1.03%
Cr 267.716†	12428.8	2.090	mg/L	0.0163	2.090	mg/L	0.0163	0.78%
Cu 324.752†	478278.6	1.951	mg/L	0.0048	1.951	mg/L	0.0048	0.25%
Fe 273.955†	2732.7	2.067	mg/L	0.0174	2.067	mg/L	0.0174	0.84%
K 766.490†	-30.0	-0.01573	mg/L	0.011402	-0.01573	mg/L	0.011402	72.48%
Mg 279.077†	2759.5	2.043	mg/L	0.0274	2.043	mg/L	0.0274	1.34%
Mn 257.610†	72643.7	2.032	mg/L	0.0100	2.032	mg/L	0.0100	0.49%
Mo 202.031†	37338.2	1.941	mg/L	0.0188	1.941	mg/L	0.0188	0.97%
Na 589.592†	443.1	0.03797	mg/L	0.001491	0.03797	mg/L	0.001491	3.93%
Na 330.237†	-18.3	-0.8888	mg/L	0.02686	-0.8888	mg/L	0.02686	3.02%
Ni 231.604†	7544.1	2.018	mg/L	0.0178	2.018	mg/L	0.0178	0.88%
Pb 220.353†	14707.9	1.972	mg/L	0.0181	1.972	mg/L	0.0181	0.92%
Sb 206.836†	6558.2	2.068	mg/L	0.0037	2.068	mg/L	0.0037	0.18%
Se 196.026†	2726.4	2.016	mg/L	0.0052	2.016	mg/L	0.0052	0.26%
Si 288.158†	77.7	0.04819	mg/L	0.002390	0.04819	mg/L	0.002390	4.96%
Sn 189.927†	-11.8	-0.00163	mg/L	0.000782	-0.00163	mg/L	0.000782	47.98%
Sr 421.552†	1706516.7	1.995	mg/L	0.0140	1.995	mg/L	0.0140	0.70%
Ti 334.903†	40662.7	1.956	mg/L	0.0093	1.956	mg/L	0.0093	0.47%
Tl 190.801†	4653.2	2.019	mg/L	0.0036	2.019	mg/L	0.0036	0.18%
V 292.402†	242286.4	2.024	mg/L	0.0227	2.024	mg/L	0.0227	1.12%
Zn 206.200†	7393.0	2.067	mg/L	0.0229	2.067	mg/L	0.0229	1.11%

Sequence No.: 3
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 11:01:27 AM
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	2445420.3	102.5	%	0.53				0.52%
ScR 361.383	314698.9	103.1	%	0.43				0.42%
Ag 328.068†	166704.9	1.035	mg/L	0.0107	1.035	mg/L	0.0107	1.03%
Al 308.215†	3366.0	1.980	mg/L	0.0142	1.980	mg/L	0.0142	0.71%
As 188.979†	3485.3	2.088	mg/L	0.0089	2.088	mg/L	0.0089	0.43%
B 249.677†	7154.0	0.9864	mg/L	0.00570	0.9864	mg/L	0.00570	0.58%
Ba 233.527†	4196.4	1.001	mg/L	0.0041	1.001	mg/L	0.0041	0.41%
Be 313.042†	612870.0	0.9924	mg/L	0.00718	0.9924	mg/L	0.00718	0.72%
Ca 317.933†	26863.6	2.020	mg/L	0.0125	2.020	mg/L	0.0125	0.62%
Cd 228.802†	30827.0	1.043	mg/L	0.0079	1.043	mg/L	0.0079	0.75%
Co 228.616†	34212.7	1.017	mg/L	0.0088	1.017	mg/L	0.0088	0.86%
Cr 267.716†	6002.7	1.010	mg/L	0.0082	1.010	mg/L	0.0082	0.81%
Cu 324.752†	245891.6	1.003	mg/L	0.0033	1.003	mg/L	0.0033	0.33%
Fe 273.955†	2683.2	2.037	mg/L	0.0157	2.037	mg/L	0.0157	0.77%
K 766.490†	37533.2	19.67	mg/L	0.218	19.67	mg/L	0.218	1.11%
Mg 279.077†	2699.6	1.991	mg/L	0.0200	1.991	mg/L	0.0200	1.00%
Mn 257.610†	36657.6	1.026	mg/L	0.0066	1.026	mg/L	0.0066	0.64%
Mo 202.031†	19277.6	1.002	mg/L	0.0094	1.002	mg/L	0.0094	0.94%
Na 589.592†	587825.5	50.36	mg/L	0.285	50.36	mg/L	0.285	0.57%
Na 330.237†	1425.3	50.89	mg/L	0.373	50.89	mg/L	0.373	0.73%
Ni 231.604†	3714.5	0.9939	mg/L	0.00661	0.9939	mg/L	0.00661	0.67%
Pb 220.353†	14987.7	2.009	mg/L	0.0202	2.009	mg/L	0.0202	1.01%
Sb 206.836†	6662.0	2.122	mg/L	0.0149	2.122	mg/L	0.0149	0.70%
Se 196.026†	2781.2	2.058	mg/L	0.0138	2.058	mg/L	0.0138	0.67%
Si 288.158†	4204.1	2.017	mg/L	0.0095	2.017	mg/L	0.0095	0.47%
Sn 189.927†	3813.1	1.025	mg/L	0.0064	1.025	mg/L	0.0064	0.63%
Sr 421.552†	852862.8	0.9970	mg/L	0.00682	0.9970	mg/L	0.00682	0.68%
Ti 334.903†	21155.8	1.018	mg/L	0.0057	1.018	mg/L	0.0057	0.56%
Tl 190.801†	4629.9	2.017	mg/L	0.0067	2.017	mg/L	0.0067	0.33%
V 292.402†	123837.8	1.034	mg/L	0.0107	1.034	mg/L	0.0107	1.04%
Zn 206.200†	3741.2	1.046	mg/L	0.0071	1.046	mg/L	0.0071	0.68%

Sequence No.: 4
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 11:05:48 AM
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	2445689.3	102.6	%	0.41				0.40%
ScR 361.383	312547.6	102.3	%	0.86				0.84%
Ag 328.068†	-52.1	-0.00032	mg/L	0.000113	-0.00032	mg/L	0.000113	34.91%
Al 308.215†	-12.3	-0.00741	mg/L	0.003817	-0.00741	mg/L	0.003817	51.52%
As 188.979†	-1.5	-0.00091	mg/L	0.000290	-0.00091	mg/L	0.000290	31.71%
B 249.677†	18.3	0.00252	mg/L	0.000207	0.00252	mg/L	0.000207	8.22%
Ba 233.527†	-0.1	-0.00001	mg/L	0.000089	-0.00001	mg/L	0.000089	658.14%
Be 313.042†	92.9	0.00015	mg/L	0.000053	0.00015	mg/L	0.000053	35.18%
Ca 317.933†	-14.1	-0.00106	mg/L	0.000659	-0.00106	mg/L	0.000659	62.03%
Cd 228.802†	-4.9	-0.00016	mg/L	0.000012	-0.00016	mg/L	0.000012	7.29%
Co 228.616†	9.0	0.00027	mg/L	0.000033	0.00027	mg/L	0.000033	12.24%
Cr 267.716†	5.2	0.00087	mg/L	0.000739	0.00087	mg/L	0.000739	84.67%
Cu 324.752†	-99.1	-0.00040	mg/L	0.000094	-0.00040	mg/L	0.000094	23.13%
Fe 273.955†	2.6	0.00197	mg/L	0.000844	0.00197	mg/L	0.000844	42.78%
K 766.490†	-47.4	-0.02485	mg/L	0.016923	-0.02485	mg/L	0.016923	68.09%
Mg 279.077†	-2.7	-0.00197	mg/L	0.001241	-0.00197	mg/L	0.001241	63.11%
Mn 257.610†	8.3	0.00023	mg/L	0.000107	0.00023	mg/L	0.000107	46.22%
Mo 202.031†	19.1	0.00099	mg/L	0.000107	0.00099	mg/L	0.000107	10.79%
Na 589.592†	105.9	0.00907	mg/L	0.002673	0.00907	mg/L	0.002673	29.47%
Na 330.237†	-8.9	-0.3170	mg/L	0.23048	-0.3170	mg/L	0.23048	72.70%
Ni 231.604†	4.6	0.00123	mg/L	0.001737	0.00123	mg/L	0.001737	140.95%
Pb 220.353†	-0.9	-0.00012	mg/L	0.000162	-0.00012	mg/L	0.000162	133.17%
Sb 206.836†	6.4	0.00202	mg/L	0.000754	0.00202	mg/L	0.000754	37.31%
Se 196.026†	2.3	0.00169	mg/L	0.003690	0.00169	mg/L	0.003690	218.57%
Si 288.158†	-4.2	-0.00203	mg/L	0.003672	-0.00203	mg/L	0.003672	181.22%
Sn 189.927†	-1.1	-0.00030	mg/L	0.000457	-0.00030	mg/L	0.000457	154.38%
Sr 421.552†	139.1	0.00016	mg/L	0.000047	0.00016	mg/L	0.000047	28.65%
Ti 334.903†	-6.4	-0.00031	mg/L	0.001036	-0.00031	mg/L	0.001036	332.71%
Tl 190.801†	-2.3	-0.00099	mg/L	0.001834	-0.00099	mg/L	0.001834	184.87%
V 292.402†	25.6	0.00022	mg/L	0.000222	0.00022	mg/L	0.000222	101.93%
Zn 206.200†	0.0	0.00000	mg/L	0.001017	0.00000	mg/L	0.001017	>999.9%

Analysis Begun

Start Time: 11/19/2012 11:14:03 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1119.sif
Batch ID:
Results Data Set: I2121119
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VS75 MB PHN
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 307
Date Collected: 11/19/2012 11:14:04 AM
Data Type: Original

Nebulizer Parameters: VS75 MB PHN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS75 MB PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2518912.8	105.6	%	0.77				0.73%
ScR 361.383	330237.1	108.1	%	1.99				1.84%
Ag 328.068†	-15.4	-0.00010	mg/L	0.000175	-0.00010	mg/L	0.000175	183.06%
Al 308.215†	-10.1	-0.00605	mg/L	0.002317	-0.00605	mg/L	0.002317	38.31%
As 188.979†	-0.9	-0.00058	mg/L	0.001296	-0.00058	mg/L	0.001296	224.32%
B 249.677†	9.1	0.00125	mg/L	0.000405	0.00125	mg/L	0.000405	32.37%
Ba 233.527†	-1.8	-0.00043	mg/L	0.000151	-0.00043	mg/L	0.000151	34.98%
Be 313.042†	1.2	0.00000	mg/L	0.000032	0.00000	mg/L	0.000032	>999.9%
Ca 317.933†	-12.7	-0.00095	mg/L	0.000217	-0.00095	mg/L	0.000217	22.82%
Cd 228.802†	-7.5	-0.00025	mg/L	0.000138	-0.00025	mg/L	0.000138	54.51%
Co 228.616†	5.6	0.00017	mg/L	0.000107	0.00017	mg/L	0.000107	63.79%
Cr 267.716†	8.2	0.00139	mg/L	0.000527	0.00139	mg/L	0.000527	37.95%
Cu 324.752†	251.4	0.00103	mg/L	0.000033	0.00103	mg/L	0.000033	3.23%
Fe 273.955†	9.0	0.00688	mg/L	0.001245	0.00688	mg/L	0.001245	18.09%
K 766.490†	-71.9	-0.03771	mg/L	0.024899	-0.03771	mg/L	0.024899	66.03%
Mg 279.077†	-10.0	-0.00737	mg/L	0.001284	-0.00737	mg/L	0.001284	17.43%
Mn 257.610†	-1.2	-0.00003	mg/L	0.000133	-0.00003	mg/L	0.000133	396.30%
Mo 202.031†	5.3	0.00027	mg/L	0.000168	0.00027	mg/L	0.000168	61.62%
Na 589.592†	76.7	0.00657	mg/L	0.001013	0.00657	mg/L	0.001013	15.41%
Na 330.237†	4.3	0.1541	mg/L	0.51022	0.1541	mg/L	0.51022	331.20%
Ni 231.604†	3.0	0.00080	mg/L	0.000600	0.00080	mg/L	0.000600	75.43%
Pb 220.353†	2.2	0.00029	mg/L	0.000442	0.00029	mg/L	0.000442	152.34%
Sb 206.836†	1.4	0.00044	mg/L	0.001189	0.00044	mg/L	0.001189	270.32%
Se 196.026†	2.4	0.00177	mg/L	0.000436	0.00177	mg/L	0.000436	24.66%
Si 288.158†	-16.1	-0.00772	mg/L	0.003272	-0.00772	mg/L	0.003272	42.41%
Sn 189.927†	-0.3	-0.00008	mg/L	0.000880	-0.00008	mg/L	0.000880	>999.9%
Sr 421.552†	24.0	0.00003	mg/L	0.000021	0.00003	mg/L	0.000021	74.19%
Ti 334.903†	-20.1	-0.00097	mg/L	0.000408	-0.00097	mg/L	0.000408	42.19%
Tl 190.801†	-4.7	-0.00208	mg/L	0.000744	-0.00208	mg/L	0.000744	35.85%
V 292.402†	4.4	0.00004	mg/L	0.000135	0.00004	mg/L	0.000135	315.47%
Zn 206.200†	1.9	0.00052	mg/L	0.000412	0.00052	mg/L	0.000412	79.02%

Sequence No.: 2
Sample ID: VS67 MB LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 308
Date Collected: 11/19/2012 11:18:21 AM
Data Type: Original

Nebulizer Parameters: VS67 MB LEN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS67 MB LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2398147.5	100.6	%	0.30				0.30%
ScR 361.383	314151.3	102.9	%	1.66				1.61%
Ag 328.068†	16.2	0.00010	mg/L	0.000270	0.00050	mg/L	0.001349	268.01%
Al 308.215†	-9.7	-0.00578	mg/L	0.006342	-0.02891	mg/L	0.031709	109.69%
As 188.979†	-1.4	-0.00092	mg/L	0.001672	-0.00458	mg/L	0.008361	182.43%
B 249.677†	198.8	0.02744	mg/L	0.001002	0.1372	mg/L	0.00501	3.65%
Ba 233.527†	11.4	0.00272	mg/L	0.000943	0.01362	mg/L	0.004716	34.61%
Be 313.042†	29.2	0.00005	mg/L	0.000028	0.00024	mg/L	0.000141	59.54%
Ca 317.933†	6703.5	0.5040	mg/L	0.01671	2.520	mg/L	0.0835	3.32%
Cd 228.802†	0.2	0.00001	mg/L	0.000112	0.00007	mg/L	0.000559	747.16%
Co 228.616†	0.3	0.00001	mg/L	0.000213	0.00005	mg/L	0.001065	>999.9%
Cr 267.716†	3.8	0.00063	mg/L	0.000762	0.00313	mg/L	0.003811	121.83%
Cu 324.752†	11.2	0.00005	mg/L	0.000159	0.00023	mg/L	0.000795	348.64%
Fe 273.955†	6.2	0.00472	mg/L	0.001563	0.02361	mg/L	0.007814	33.09%
K 766.490†	115.1	0.06033	mg/L	0.019262	0.3017	mg/L	0.09631	31.93%
Mg 279.077†	75.7	0.05561	mg/L	0.007623	0.2781	mg/L	0.03812	13.71%
Mn 257.610†	7.1	0.00020	mg/L	0.000047	0.00099	mg/L	0.000237	23.90%
Mo 202.031†	3.7	0.00019	mg/L	0.000141	0.00094	mg/L	0.000707	75.50%
Na 589.592†	3132681.4	268.4	mg/L	7.52	1342	mg/L	37.58	2.80%
Na 330.237†	7864.5	281.4	mg/L	8.26	1407	mg/L	41.29	2.93%
Ni 231.604†	15.5	0.00414	mg/L	0.000258	0.02071	mg/L	0.001289	6.22%
Pb 220.353†	2.0	0.00027	mg/L	0.000342	0.00135	mg/L	0.001710	126.19%
Sb 206.836†	-3.9	-0.00124	mg/L	0.000921	-0.00621	mg/L	0.004605	74.19%
Se 196.026†	4.9	0.00363	mg/L	0.002896	0.01817	mg/L	0.014480	79.70%
Si 288.158†	70.1	0.03366	mg/L	0.004703	0.1683	mg/L	0.02352	13.97%
Sn 189.927†	-1.5	-0.00033	mg/L	0.000234	-0.00165	mg/L	0.001172	70.83%
Sr 421.552†	329.2	0.00038	mg/L	0.000003	0.00192	mg/L	0.000017	0.90%
Ti 334.903†	-21.0	-0.00104	mg/L	0.000723	-0.00518	mg/L	0.003613	69.80%
Tl 190.801†	-1.7	-0.00074	mg/L	0.002467	-0.00372	mg/L	0.012334	331.72%
V 292.402†	-6.1	-0.00005	mg/L	0.000388	-0.00024	mg/L	0.001941	824.72%
Zn 206.200†	6.2	0.00172	mg/L	0.000605	0.00862	mg/L	0.003027	35.12%

Sequence No.: 3
Sample ID: VS75 A PHN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 309
Date Collected: 11/19/2012 11:22:53 AM
Data Type: Original

Nebulizer Parameters: VS75 A PHN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS75 A PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2525061.4	105.9	%	0.64				0.60%
ScR 361.383	332863.4	109.0	%	0.52				0.47%
Ag 328.068†	-27.5	-0.00017	mg/L	0.000107	-0.00017	mg/L	0.000107	63.26%
Al 308.215†	5728.4	3.428	mg/L	0.0320	3.428	mg/L	0.0320	0.93%
As 188.979†	-1.6	0.00293	mg/L	0.002201	0.00293	mg/L	0.002201	75.01%
B 249.677†	93.0	0.01284	mg/L	0.000522	0.01284	mg/L	0.000522	4.07%
Ba 233.527†	378.7	0.08968	mg/L	0.000756	0.08968	mg/L	0.000756	0.84%
Be 313.042†	0.4	-0.00000	mg/L	0.000021	-0.00000	mg/L	0.000021	882.85%
Ca 317.933†	31862.2	2.396	mg/L	0.0086	2.396	mg/L	0.0086	0.36%
Cd 228.802†	19.7	0.00066	mg/L	0.000103	0.00066	mg/L	0.000103	15.54%
Co 228.616†	106.1	0.00282	mg/L	0.000127	0.00282	mg/L	0.000127	4.49%
Cr 267.716†	484.2	0.08153	mg/L	0.000751	0.08153	mg/L	0.000751	0.92%
Cu 324.752†	10365.2	0.04243	mg/L	0.000392	0.04243	mg/L	0.000392	0.92%
Fe 273.955†	5271.6	4.016	mg/L	0.0272	4.016	mg/L	0.0272	0.68%
K 766.490†	2678.3	1.404	mg/L	0.0279	1.404	mg/L	0.0279	1.98%
Mg 279.077†	1063.8	0.7799	mg/L	0.00838	0.7799	mg/L	0.00838	1.07%
Mn 257.610†	1985.5	0.05555	mg/L	0.000403	0.05555	mg/L	0.000403	0.73%
Mo 202.031†	71.6	0.00369	mg/L	0.000302	0.00369	mg/L	0.000302	8.19%
Na 589.592†	59613.0	5.107	mg/L	0.0400	5.107	mg/L	0.0400	0.78%
Na 330.237†	144.8	5.088	mg/L	0.1854	5.088	mg/L	0.1854	3.64%
Ni 231.604†	75.7	0.02024	mg/L	0.001222	0.02024	mg/L	0.001222	6.04%
Pb 220.353†	351.5	0.04782	mg/L	0.000337	0.04782	mg/L	0.000337	0.70%
Sb 206.836†	1.6	-0.00051	mg/L	0.000433	-0.00051	mg/L	0.000433	84.51%
Se 196.026†	8.8	0.00649	mg/L	0.001360	0.00649	mg/L	0.001360	20.96%
Si 288.158†	2186.0	1.049	mg/L	0.0115	1.049	mg/L	0.0115	1.10%
Sn 189.927†	33.2	0.00924	mg/L	0.001384	0.00924	mg/L	0.001384	14.98%
Sr 421.552†	25936.7	0.03032	mg/L	0.000210	0.03032	mg/L	0.000210	0.69%
Ti 334.903†	3012.1	0.1449	mg/L	0.00201	0.1449	mg/L	0.00201	1.39%
Tl 190.801†	-0.1	0.00030	mg/L	0.000712	0.00030	mg/L	0.000712	235.11%
V 292.402†	740.0	0.00629	mg/L	0.000086	0.00629	mg/L	0.000086	1.36%
Zn 206.200†	1382.4	0.3866	mg/L	0.00426	0.3866	mg/L	0.00426	1.10%

Sequence No.: 4
Sample ID.: VS75 B PHN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 310
Date Collected: 11/19/2012 11:26:53 AM
Data Type: Original

Nebulizer Parameters: VS75 B PHN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS75 B PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2509330.5	105.2	%	0.16				0.15%
ScR 361.383	323331.7	105.9	%	0.46				0.44%
Ag 328.068†	57.6	0.00036	mg/L	0.000258	0.00036	mg/L	0.000258	71.86%
Al 308.215†	1619.5	0.9691	mg/L	0.00661	0.9691	mg/L	0.00661	0.68%
As 188.979†	8.1	0.00657	mg/L	0.000442	0.00657	mg/L	0.000442	6.73%
B 249.677†	121.1	0.01671	mg/L	0.000804	0.01671	mg/L	0.000804	4.81%
Ba 233.527†	293.1	0.06920	mg/L	0.000512	0.06920	mg/L	0.000512	0.74%
Be 313.042†	4.3	0.00001	mg/L	0.000007	0.00001	mg/L	0.000007	137.61%
Ca 317.933†	46738.3	3.514	mg/L	0.0034	3.514	mg/L	0.0034	0.10%
Cd 228.802†	78.1	0.00261	mg/L	0.000079	0.00261	mg/L	0.000079	3.03%
Co 228.616†	158.7	0.00453	mg/L	0.000111	0.00453	mg/L	0.000111	2.45%
Cr 267.716†	180.3	0.03039	mg/L	0.000724	0.03039	mg/L	0.000724	2.38%
Cu 324.752†	17594.4	0.07196	mg/L	0.000104	0.07196	mg/L	0.000104	0.14%
Fe 273.955†	5879.6	4.479	mg/L	0.0284	4.479	mg/L	0.0284	0.63%
K 766.490†	2572.6	1.349	mg/L	0.0165	1.349	mg/L	0.0165	1.23%
Mg 279.077†	695.1	0.5086	mg/L	0.00735	0.5086	mg/L	0.00735	1.44%
Mn 257.610†	2176.3	0.06091	mg/L	0.000374	0.06091	mg/L	0.000374	0.61%
Mo 202.031†	129.4	0.00669	mg/L	0.000135	0.00669	mg/L	0.000135	2.02%
Na 589.592†	398795.1	34.17	mg/L	0.198	34.17	mg/L	0.198	0.58%
Na 330.237†	995.3	35.23	mg/L	0.262	35.23	mg/L	0.262	0.74%
Ni 231.604†	60.1	0.01607	mg/L	0.000800	0.01607	mg/L	0.000800	4.98%
Pb 220.353†	675.2	0.09045	mg/L	0.001121	0.09045	mg/L	0.001121	1.24%
Sb 206.836†	7.7	0.00214	mg/L	0.001553	0.00214	mg/L	0.001553	72.62%
Se 196.026†	3.0	0.00221	mg/L	0.000525	0.00221	mg/L	0.000525	23.74%
Si 288.158†	2194.4	1.053	mg/L	0.0129	1.053	mg/L	0.0129	1.22%
Sn 189.927†	32.5	0.00917	mg/L	0.000405	0.00917	mg/L	0.000405	4.42%
Sr 421.552†	41025.8	0.04796	mg/L	0.000155	0.04796	mg/L	0.000155	0.32%
Ti 334.903†	1471.8	0.07070	mg/L	0.003209	0.07070	mg/L	0.003209	4.54%
Tl 190.801†	-1.3	-0.00012	mg/L	0.002141	-0.00012	mg/L	0.002141	>999.9%
V 292.402†	389.3	0.00319	mg/L	0.000104	0.00319	mg/L	0.000104	3.26%
Zn 206.200†	4366.9	1.221	mg/L	0.0068	1.221	mg/L	0.0068	0.55%

Sequence No.: 5
Sample ID: VS67 B LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 311
Date Collected: 11/19/2012 11:31:07 AM
Data Type: Original

Nebulizer Parameters: VS67 B LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS67 B LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2314882.9	97.07	%	0.401				0.41%
ScR 361.383	307336.2	100.6	%	1.84				1.83%
Ag 328.068†	-200.6	-0.00125	mg/L	0.000247	-0.00623	mg/L	0.001235	19.84%
Al 308.215†	442.0	0.2643	mg/L	0.01602	1.322	mg/L	0.0801	6.06%
As 188.979†	49.8	0.01978	mg/L	0.003170	0.09891	mg/L	0.015849	16.02%
B 249.677†	-11.4	-0.00157	mg/L	0.001432	-0.00783	mg/L	0.007162	91.50%
Ba 233.527†	651.4	0.1554	mg/L	0.01184	0.7771	mg/L	0.05921	7.62%
Be 313.042†	8.4	0.00001	mg/L	0.000014	0.00007	mg/L	0.000071	106.60%
Ca 317.933†	2259905.4	169.9	mg/L	12.07	849.5	mg/L	60.35	7.10%
Cd 228.802†	13.2	0.00026	mg/L	0.000186	0.00129	mg/L	0.000930	72.38%
Co 228.616†	13.7	0.00038	mg/L	0.000089	0.00190	mg/L	0.000443	23.37%
Cr 267.716†	176.8	0.02818	mg/L	0.002169	0.1409	mg/L	0.01084	7.69%
Cu 324.752†	3011.8	0.01228	mg/L	0.000494	0.06141	mg/L	0.002470	4.02%
Fe 273.955†	13.6	0.01040	mg/L	0.001646	0.05200	mg/L	0.008228	15.83%
K 766.490†	3760.8	1.971	mg/L	0.0945	9.857	mg/L	0.4724	4.79%
Mg 279.077†	25.2	0.01859	mg/L	0.002038	0.09297	mg/L	0.010189	10.96%
Mn 257.610†	36.6	0.00054	mg/L	0.000123	0.00268	mg/L	0.000616	23.02%
Mo 202.031†	194.1	0.00825	mg/L	0.000390	0.04125	mg/L	0.001948	4.72%
Na 589.592†	3236105.1	277.3	mg/L	17.17	1386	mg/L	85.84	6.19%
Na 330.237†	8048.8	288.0	mg/L	16.42	1440	mg/L	82.09	5.70%
Ni 231.604†	8.0	0.00213	mg/L	0.001866	0.01063	mg/L	0.009328	87.77%
Pb 220.353†	6.6	0.00098	mg/L	0.000440	0.00489	mg/L	0.002202	45.06%
Sb 206.836†	7.1	0.00163	mg/L	0.001825	0.00817	mg/L	0.009123	111.66%
Se 196.026†	-25.0	-0.01853	mg/L	0.005892	-0.09263	mg/L	0.029460	31.80%
Si 288.158†	1758.6	0.8441	mg/L	0.06289	4.220	mg/L	0.3145	7.45%
Sn 189.927†	-77.7	0.00015	mg/L	0.003146	0.00075	mg/L	0.015728	>999.9%
Sr 421.552†	629751.3	0.7362	mg/L	0.04924	3.681	mg/L	0.2462	6.69%
Ti 334.903†	203.1	0.00166	mg/L	0.000685	0.00829	mg/L	0.003426	41.32%
Tl 190.801†	24.5	0.01073	mg/L	0.004129	0.05365	mg/L	0.020647	38.48%
V 292.402†	118.1	0.00111	mg/L	0.000144	0.00555	mg/L	0.000720	12.97%
Zn 206.200†	5.7	0.00158	mg/L	0.000414	0.00791	mg/L	0.002070	26.15%

Sequence No.: 6
Sample ID: VS67 ADUP LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 312
Date Collected: 11/19/2012 11:35:40 AM
Data Type: Original

Nebulizer Parameters: VS67 ADUP LEN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS67 ADUP LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2321325.0	97.34	%	0.579				0.59%
ScR 361.383	306381.3	100.3	%	1.88				1.87%
Ag 328.068†	-182.8	-0.00113	mg/L	0.000203	-0.00567	mg/L	0.001016	17.90%
Al 308.215†	385.5	0.2305	mg/L	0.00821	1.153	mg/L	0.0410	3.56%
As 188.979†	51.5	0.02107	mg/L	0.002140	0.1053	mg/L	0.01070	10.16%
B 249.677†	116.5	0.01609	mg/L	0.001097	0.08045	mg/L	0.005487	6.82%
Ba 233.527†	641.7	0.1531	mg/L	0.00583	0.7655	mg/L	0.02913	3.81%
Be 313.042†	13.3	0.00002	mg/L	0.000031	0.00011	mg/L	0.000157	146.78%
Ca 317.933†	2190867.3	164.7	mg/L	4.66	823.6	mg/L	23.28	2.83%
Cd 228.802†	12.3	0.00022	mg/L	0.000020	0.00111	mg/L	0.000099	8.90%
Co 228.616†	14.7	0.00041	mg/L	0.000110	0.00205	mg/L	0.000550	26.85%
Cr 267.716†	176.2	0.02813	mg/L	0.002067	0.1407	mg/L	0.01034	7.35%
Cu 324.752†	1954.9	0.00797	mg/L	0.000262	0.03985	mg/L	0.001312	3.29%
Fe 273.955†	9.1	0.00700	mg/L	0.000377	0.03498	mg/L	0.001883	5.38%
K 766.490†	3473.5	1.821	mg/L	0.0486	9.104	mg/L	0.2432	2.67%
Mg 279.077†	74.7	0.05495	mg/L	0.008092	0.2747	mg/L	0.04046	14.73%
Mn 257.610†	35.2	0.00051	mg/L	0.000112	0.00256	mg/L	0.000558	21.77%
Mo 202.031†	168.6	0.00698	mg/L	0.000237	0.03490	mg/L	0.001185	3.39%
Na 589.592†	3268848.2	280.1	mg/L	7.44	1400	mg/L	37.19	2.66%
Na 330.237†	7980.8	285.6	mg/L	8.50	1428	mg/L	42.51	2.98%
Ni 231.604†	12.7	0.00339	mg/L	0.000251	0.01696	mg/L	0.001257	7.41%
Pb 220.353†	-21.6	-0.00280	mg/L	0.000215	-0.01399	mg/L	0.001077	7.70%
Sb 206.836†	2.4	0.00015	mg/L	0.002311	0.00076	mg/L	0.011555	>999.9%
Se 196.026†	-26.8	-0.01986	mg/L	0.003239	-0.09930	mg/L	0.016196	16.31%
Si 288.158†	1441.3	0.6918	mg/L	0.02940	3.459	mg/L	0.1470	4.25%
Sn 189.927†	-70.7	0.00140	mg/L	0.001569	0.00701	mg/L	0.007844	111.85%
Sr 421.552†	659200.9	0.7706	mg/L	0.02043	3.853	mg/L	0.1022	2.65%
Ti 334.903†	190.5	0.00130	mg/L	0.000698	0.00649	mg/L	0.003489	53.78%
Tl 190.801†	22.8	0.00997	mg/L	0.002339	0.04985	mg/L	0.011694	23.46%
V 292.402†	73.1	0.00074	mg/L	0.000205	0.00368	mg/L	0.001027	27.95%
Zn 206.200†	3.9	0.00107	mg/L	0.000547	0.00537	mg/L	0.002736	50.92%

Sequence No.: 7
Sample ID: VS67 A LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 313
Date Collected: 11/19/2012 11:40:13 AM
Data Type: Original

Nebulizer Parameters: VS67 A LEN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS67 A LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2326516.7	97.56	%	0.151				0.16%
ScR 361.383	301919.6	98.87	%	1.294				1.31%
Ag 328.068†	-184.7	-0.00115	mg/L	0.000236	-0.00573	mg/L	0.001181	20.60%
Al 308.215†	368.6	0.2204	mg/L	0.01873	1.102	mg/L	0.0936	8.50%
As 188.979†	48.1	0.01926	mg/L	0.002310	0.09629	mg/L	0.011552	12.00%
B 249.677†	116.4	0.01608	mg/L	0.000403	0.08038	mg/L	0.002013	2.50%
Ba 233.527†	644.2	0.1537	mg/L	0.00728	0.7685	mg/L	0.03640	4.74%
Be 313.042†	16.8	0.00003	mg/L	0.000015	0.00013	mg/L	0.000076	56.18%
Ca 317.933†	2156743.3	162.2	mg/L	6.12	810.8	mg/L	30.58	3.77%
Cd 228.802†	8.7	0.00011	mg/L	0.000124	0.00054	mg/L	0.000618	114.10%
Co 228.616†	14.9	0.00042	mg/L	0.000103	0.00208	mg/L	0.000516	24.82%
Cr 267.716†	171.3	0.02732	mg/L	0.001567	0.1366	mg/L	0.00783	5.73%
Cu 324.752†	2263.5	0.00923	mg/L	0.000314	0.04615	mg/L	0.001570	3.40%
Fe 273.955†	6.2	0.00480	mg/L	0.002104	0.02398	mg/L	0.010518	43.86%
K 766.490†	3467.6	1.818	mg/L	0.0744	9.088	mg/L	0.3722	4.10%
Mg 279.077†	79.6	0.05858	mg/L	0.004663	0.2929	mg/L	0.02332	7.96%
Mn 257.610†	36.8	0.00056	mg/L	0.000128	0.00282	mg/L	0.000639	22.63%
Mo 202.031†	173.5	0.00726	mg/L	0.000062	0.03632	mg/L	0.000309	0.85%
Na 589.592†	3223634.5	276.2	mg/L	10.58	1381	mg/L	52.92	3.83%
Na 330.237†	7894.6	282.5	mg/L	10.94	1412	mg/L	54.69	3.87%
Ni 231.604†	4.6	0.00122	mg/L	0.000813	0.00611	mg/L	0.004067	66.52%
Pb 220.353†	-22.9	-0.00298	mg/L	0.000412	-0.01489	mg/L	0.002061	13.84%
Sb 206.836†	-0.9	-0.00089	mg/L	0.001121	-0.00444	mg/L	0.005607	126.16%
Se 196.026†	-26.4	-0.01952	mg/L	0.002111	-0.09760	mg/L	0.010554	10.81%
Si 288.158†	1453.4	0.6976	mg/L	0.02856	3.488	mg/L	0.1428	4.09%
Sn 189.927†	-73.9	0.00021	mg/L	0.000980	0.00107	mg/L	0.004899	459.74%
Sr 421.552†	652879.8	0.7632	mg/L	0.03079	3.816	mg/L	0.1539	4.03%
Ti 334.903†	196.8	0.00173	mg/L	0.000852	0.00863	mg/L	0.004259	49.36%
Tl 190.801†	25.1	0.01097	mg/L	0.002697	0.05484	mg/L	0.013483	24.59%
V 292.402†	76.2	0.00076	mg/L	0.000061	0.00379	mg/L	0.000306	8.08%
Zn 206.200†	2.8	0.00079	mg/L	0.000323	0.00395	mg/L	0.001613	40.88%

Sequence No.: 8
Sample ID: VS67 ASPK LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 314
Date Collected: 11/19/2012 11:44:29 AM
Data Type: Original

Nebulizer Parameters: VS67 ASPK LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS67 ASPK LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2357151.8	98.84	%	0.670				0.68%
ScR 361.383	308538.5	101.0	%	1.27				1.25%
Ag 328.068†	34086.2	0.2117	mg/L	0.00325	1.059	mg/L	0.0163	1.54%
Al 308.215†	1759.9	1.050	mg/L	0.0303	5.251	mg/L	0.1515	2.89%
As 188.979†	1513.9	0.8862	mg/L	0.01710	4.431	mg/L	0.0855	1.93%
B 249.677†	121.7	0.01637	mg/L	0.001215	0.08187	mg/L	0.006073	7.42%
Ba 233.527†	3973.1	0.9478	mg/L	0.02797	4.739	mg/L	0.1398	2.95%
Be 313.042†	125230.0	0.2028	mg/L	0.00341	1.014	mg/L	0.0171	1.68%
Ca 317.933†	2329547.2	175.1	mg/L	3.45	875.7	mg/L	17.24	1.97%
Cd 228.802†	6737.6	0.2250	mg/L	0.00390	1.125	mg/L	0.0195	1.74%
Co 228.616†	6974.5	0.2076	mg/L	0.00353	1.038	mg/L	0.0177	1.70%
Cr 267.716†	1388.6	0.2316	mg/L	0.00570	1.158	mg/L	0.0285	2.46%
Cu 324.752†	55644.3	0.2271	mg/L	0.00366	1.135	mg/L	0.0183	1.61%
Fe 273.955†	1070.4	0.8140	mg/L	0.02054	4.070	mg/L	0.1027	2.52%
K 766.490†	11266.4	5.906	mg/L	0.0859	29.53	mg/L	0.430	1.46%
Mg 279.077†	5592.4	4.111	mg/L	0.1012	20.55	mg/L	0.506	2.46%
Mn 257.610†	7286.0	0.2035	mg/L	0.00517	1.017	mg/L	0.0258	2.54%
Mo 202.031†	161.7	0.00650	mg/L	0.000173	0.03249	mg/L	0.000863	2.66%
Na 589.592†	3406393.5	291.8	mg/L	7.51	1459	mg/L	37.57	2.57%
Na 330.237†	8342.8	298.5	mg/L	4.75	1492	mg/L	23.73	1.59%
Ni 231.604†	751.5	0.2007	mg/L	0.00571	1.003	mg/L	0.0285	2.84%
Pb 220.353†	6105.1	0.8182	mg/L	0.01331	4.091	mg/L	0.0666	1.63%
Sb 206.836†	1.8	-0.00214	mg/L	0.002203	-0.01072	mg/L	0.011014	102.74%
Se 196.026†	1151.6	0.8524	mg/L	0.01012	4.262	mg/L	0.0506	1.19%
Si 288.158†	1507.2	0.7247	mg/L	0.01954	3.624	mg/L	0.0977	2.70%
Sn 189.927†	-74.8	0.00159	mg/L	0.000883	0.00797	mg/L	0.004415	55.37%
Sr 421.552†	851653.4	0.9956	mg/L	0.01786	4.978	mg/L	0.0893	1.79%
Ti 334.903†	202.3	0.00133	mg/L	0.000147	0.00664	mg/L	0.000733	11.03%
Tl 190.801†	1805.4	0.7879	mg/L	0.01500	3.939	mg/L	0.0750	1.90%
V 292.402†	24552.9	0.2052	mg/L	0.00334	1.026	mg/L	0.0167	1.63%
Zn 206.200†	727.2	0.2034	mg/L	0.00550	1.017	mg/L	0.0275	2.71%

Sequence No.: 9
Sample ID: VS75 MBSPK PHN
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 315
Date Collected: 11/19/2012 11:49:02 AM
Data Type: Original

Nebulizer Parameters: VS75 MBSPK PHN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS75 MBSPK PHN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2481410.9	104.1	%	0.16				0.15%
ScR 361.383	314299.4	102.9	%	0.82				0.80%
Ag 328.068†	169825.8	1.055	mg/L	0.0031	1.055	mg/L	0.0031	0.30%
Al 308.215†	6870.9	4.098	mg/L	0.0208	4.098	mg/L	0.0208	0.51%
As 188.979†	7018.3	4.153	mg/L	0.0051	4.153	mg/L	0.0051	0.12%
B 249.677†	10.6	-0.00063	mg/L	0.000447	-0.00063	mg/L	0.000447	70.51%
Ba 233.527†	17012.7	4.058	mg/L	0.0246	4.058	mg/L	0.0246	0.61%
Be 313.042†	633347.3	1.026	mg/L	0.0072	1.026	mg/L	0.0072	0.70%
Ca 317.933†	263199.8	19.79	mg/L	0.114	19.79	mg/L	0.114	0.58%
Cd 228.802†	31787.4	1.062	mg/L	0.0027	1.062	mg/L	0.0027	0.25%
Co 228.616†	34314.4	1.022	mg/L	0.0035	1.022	mg/L	0.0035	0.34%
Cr 267.716†	6206.9	1.042	mg/L	0.0040	1.042	mg/L	0.0040	0.38%
Cu 324.752†	246490.2	1.006	mg/L	0.0019	1.006	mg/L	0.0019	0.19%
Fe 273.955†	5488.8	4.174	mg/L	0.0067	4.174	mg/L	0.0067	0.16%
K 766.490†	38383.5	20.12	mg/L	0.201	20.12	mg/L	0.201	1.00%
Mg 279.077†	28349.9	20.84	mg/L	0.097	20.84	mg/L	0.097	0.47%
Mn 257.610†	36029.5	1.009	mg/L	0.0060	1.009	mg/L	0.0060	0.59%
Mo 202.031†	41.9	0.00191	mg/L	0.000175	0.00191	mg/L	0.000175	9.18%
Na 589.592†	237472.5	20.35	mg/L	0.156	20.35	mg/L	0.156	0.77%
Na 330.237†	582.9	20.52	mg/L	0.083	20.52	mg/L	0.083	0.40%
Ni 231.604†	3800.3	1.015	mg/L	0.0069	1.015	mg/L	0.0069	0.68%
Pb 220.353†	29875.4	4.004	mg/L	0.0006	4.004	mg/L	0.0006	0.02%
Sb 206.836†	25.0	-0.00307	mg/L	0.001493	-0.00307	mg/L	0.001493	48.72%
Se 196.026†	5614.8	4.156	mg/L	0.0058	4.156	mg/L	0.0058	0.14%
Si 288.158†	-18.5	-0.00240	mg/L	0.001928	-0.00240	mg/L	0.001928	80.26%
Sn 189.927†	-31.4	-0.00585	mg/L	0.000418	-0.00585	mg/L	0.000418	7.15%
Sr 421.552†	882294.7	1.031	mg/L	0.0071	1.031	mg/L	0.0071	0.69%
Ti 334.903†	24.6	0.00003	mg/L	0.000319	0.00003	mg/L	0.000319	>999.9%
Tl 190.801†	9093.6	3.969	mg/L	0.0051	3.969	mg/L	0.0051	0.13%
V 292.402†	123140.0	1.029	mg/L	0.0019	1.029	mg/L	0.0019	0.18%
Zn 206.200†	3703.0	1.036	mg/L	0.0047	1.036	mg/L	0.0047	0.45%

Sequence No.: 10
Sample ID: CV 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 11:53:04 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2444669.3	102.5	%	0.27				0.27%
ScR 361.383	310279.4	101.6	%	1.52				1.49%
Ag 328.068†	164528.2	1.022	mg/L	0.0022	1.022	mg/L	0.0022	0.21%
Al 308.215†	3366.7	1.981	mg/L	0.0292	1.981	mg/L	0.0292	1.47%
As 188.979†	3468.4	2.079	mg/L	0.0034	2.079	mg/L	0.0034	0.16%
B 249.677†	7181.6	0.9902	mg/L	0.02043	0.9902	mg/L	0.02043	2.06%
Ba 233.527†	4150.5	0.9898	mg/L	0.01061	0.9898	mg/L	0.01061	1.07%
Be 313.042†	626594.2	1.015	mg/L	0.0201	1.015	mg/L	0.0201	1.98%
Ca 317.933†	27498.5	2.067	mg/L	0.0304	2.067	mg/L	0.0304	1.47%
Cd 228.802†	30592.2	1.035	mg/L	0.0031	1.035	mg/L	0.0031	0.30%
Co 228.616†	33745.4	1.003	mg/L	0.0032	1.003	mg/L	0.0032	0.32%
Cr 267.716†	6035.2	1.015	mg/L	0.0154	1.015	mg/L	0.0154	1.52%
Cu 324.752†	244268.9	0.9962	mg/L	0.00281	0.9962	mg/L	0.00281	0.28%
Fe 273.955†	2725.8	2.069	mg/L	0.0288	2.069	mg/L	0.0288	1.39%
K 766.490†	38330.3	20.09	mg/L	0.431	20.09	mg/L	0.431	2.15%
Mg 279.077†	2716.5	2.004	mg/L	0.0198	2.004	mg/L	0.0198	0.99%
Mn 257.610†	37198.7	1.041	mg/L	0.0157	1.041	mg/L	0.0157	1.51%
Mo 202.031†	19005.7	0.9879	mg/L	0.00367	0.9879	mg/L	0.00367	0.37%
Na 589.592†	598876.3	51.31	mg/L	1.034	51.31	mg/L	1.034	2.01%
Na 330.237†	1449.6	51.76	mg/L	0.746	51.76	mg/L	0.746	1.44%
Ni 231.604†	3730.6	0.9982	mg/L	0.01756	0.9982	mg/L	0.01756	1.76%
Pb 220.353†	14826.8	1.987	mg/L	0.0054	1.987	mg/L	0.0054	0.27%
Sb 206.836†	6613.2	2.106	mg/L	0.0044	2.106	mg/L	0.0044	0.21%
Se 196.026†	2765.1	2.046	mg/L	0.0083	2.046	mg/L	0.0083	0.41%
Si 288.158†	4236.6	2.032	mg/L	0.0281	2.032	mg/L	0.0281	1.39%
Sn 189.927†	3786.0	1.018	mg/L	0.0012	1.018	mg/L	0.0012	0.12%
Sr 421.552†	869451.6	1.016	mg/L	0.0198	1.016	mg/L	0.0198	1.95%
Ti 334.903†	21353.5	1.027	mg/L	0.0150	1.027	mg/L	0.0150	1.46%
Tl 190.801†	4567.2	1.990	mg/L	0.0025	1.990	mg/L	0.0025	0.13%
V 292.402†	122306.2	1.022	mg/L	0.0032	1.022	mg/L	0.0032	0.32%
Zn 206.200†	3744.6	1.047	mg/L	0.0146	1.047	mg/L	0.0146	1.39%

Sequence No.: 11
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 11:57:25 AM
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	2439994.6	102.3	%	0.42				0.41%
ScR 361.383	317951.6	104.1	%	1.07				1.02%
Ag 328.068†	36.1	0.00022	mg/L	0.000046	0.00022	mg/L	0.000046	20.44%
Al 308.215†	-4.6	-0.00275	mg/L	0.004377	-0.00275	mg/L	0.004377	159.03%
As 188.979†	3.4	0.00199	mg/L	0.001731	0.00199	mg/L	0.001731	87.17%
B 249.677†	6.0	0.00082	mg/L	0.000717	0.00082	mg/L	0.000717	87.18%
Ba 233.527†	-0.2	-0.00004	mg/L	0.000264	-0.00004	mg/L	0.000264	602.50%
Be 313.042†	95.0	0.00015	mg/L	0.000008	0.00015	mg/L	0.000008	5.25%
Ca 317.933†	252.8	0.01900	mg/L	0.002064	0.01900	mg/L	0.002064	10.86%
Cd 228.802†	-4.7	-0.00017	mg/L	0.000121	-0.00017	mg/L	0.000121	70.08%
Co 228.616†	6.0	0.00018	mg/L	0.000092	0.00018	mg/L	0.000092	51.03%
Cr 267.716†	5.6	0.00094	mg/L	0.000720	0.00094	mg/L	0.000720	76.71%
Cu 324.752†	-130.9	-0.00053	mg/L	0.000140	-0.00053	mg/L	0.000140	26.26%
Fe 273.955†	3.5	0.00265	mg/L	0.000554	0.00265	mg/L	0.000554	20.91%
K 766.490†	-27.0	-0.01417	mg/L	0.000695	-0.01417	mg/L	0.000695	4.90%
Mg 279.077†	-5.3	-0.00390	mg/L	0.001236	-0.00390	mg/L	0.001236	31.72%
Mn 257.610†	7.4	0.00021	mg/L	0.000066	0.00021	mg/L	0.000066	32.12%
Mo 202.031†	11.8	0.00061	mg/L	0.000176	0.00061	mg/L	0.000176	28.81%
Na 589.592†	719.1	0.06161	mg/L	0.003489	0.06161	mg/L	0.003489	5.66%
Na 330.237†	-6.8	-0.2449	mg/L	0.11826	-0.2449	mg/L	0.11826	48.28%
Ni 231.604†	6.8	0.00183	mg/L	0.001013	0.00183	mg/L	0.001013	55.45%
Pb 220.353†	2.3	0.00031	mg/L	0.000276	0.00031	mg/L	0.000276	87.98%
Sb 206.836†	4.3	0.00137	mg/L	0.000855	0.00137	mg/L	0.000855	62.48%
Se 196.026†	-0.2	-0.00012	mg/L	0.001711	-0.00012	mg/L	0.001711	>999.9%
Si 288.158†	2.5	0.00120	mg/L	0.005544	0.00120	mg/L	0.005544	461.81%
Sn 189.927†	-0.3	-0.00007	mg/L	0.000687	-0.00007	mg/L	0.000687	959.51%
Sr 421.552†	221.9	0.00026	mg/L	0.000007	0.00026	mg/L	0.000007	2.68%
Ti 334.903†	-5.5	-0.00027	mg/L	0.001414	-0.00027	mg/L	0.001414	526.14%
Tl 190.801†	-1.0	-0.00044	mg/L	0.002424	-0.00044	mg/L	0.002424	545.35%
V 292.402†	13.9	0.00012	mg/L	0.000150	0.00012	mg/L	0.000150	124.65%
Zn 206.200†	-0.4	-0.00012	mg/L	0.000446	-0.00012	mg/L	0.000446	387.72%

Sequence No.: 12
Sample ID: VR36 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 316
Date Collected: 11/19/2012 12:01:40 PM
Data Type: Original

Nebulizer Parameters: VR36 E SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR36 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2470017.7	103.6	%	0.67				0.65%
ScR 361.383	323775.7	106.0	%	1.29				1.22%
Ag 328.068†	-55.9	-0.00032	mg/L	0.000080	-0.00160	mg/L	0.000401	24.98%
Al 308.215†	77040.2	46.11	mg/L	0.259	230.5	mg/L	1.29	0.56%
As 188.979†	12.6	0.06816	mg/L	0.000138	0.3408	mg/L	0.00069	0.20%
B 249.677†	35.3	0.00482	mg/L	0.001445	0.02409	mg/L	0.007224	29.98%
Ba 233.527†	2608.0	0.6128	mg/L	0.00243	3.064	mg/L	0.0122	0.40%
Be 313.042†	952.1	0.00150	mg/L	0.000025	0.00749	mg/L	0.000126	1.68%
Ca 317.933†	134892.3	10.14	mg/L	0.063	50.71	mg/L	0.314	0.62%
Cd 228.802†	436.8	0.01441	mg/L	0.000210	0.07204	mg/L	0.001052	1.46%
Co 228.616†	829.9	0.01977	mg/L	0.000166	0.09885	mg/L	0.000831	0.84%
Cr 267.716†	383.1	0.06527	mg/L	0.000540	0.3263	mg/L	0.00270	0.83%
Cu 324.752†	13198.8	0.05584	mg/L	0.000582	0.2792	mg/L	0.00291	1.04%
Fe 273.955†	75330.5	57.38	mg/L	0.369	286.9	mg/L	1.84	0.64%
K 766.490†	10842.4	5.683	mg/L	0.0446	28.42	mg/L	0.223	0.78%
Mg 279.077†	17747.3	13.01	mg/L	0.084	65.07	mg/L	0.422	0.65%
Mn 257.610†	67582.0	1.891	mg/L	0.0095	9.453	mg/L	0.0474	0.50%
Mo 202.031†	47.4	0.00235	mg/L	0.000043	0.01176	mg/L	0.000216	1.84%
Na 589.592†	6321.5	0.5416	mg/L	0.00467	2.708	mg/L	0.0233	0.86%
Na 330.237†	0.0	0.1367	mg/L	0.08025	0.6837	mg/L	0.40124	58.69%
Ni 231.604†	191.6	0.05125	mg/L	0.001044	0.2563	mg/L	0.00522	2.04%
Pb 220.353†	3873.8	0.5276	mg/L	0.00298	2.638	mg/L	0.0149	0.57%
Sb 206.836†	16.4	0.00556	mg/L	0.000307	0.02782	mg/L	0.001535	5.52%
Se 196.026†	2.5	0.00180	mg/L	0.002766	0.00900	mg/L	0.013829	153.66%
Si 288.158†	5179.8	2.487	mg/L	0.0192	12.44	mg/L	0.096	0.77%
Sn 189.927†	-15.4	-0.00254	mg/L	0.001287	-0.01270	mg/L	0.006437	50.68%
Sr 421.552†	98907.7	0.1156	mg/L	0.00064	0.5781	mg/L	0.00322	0.56%
Ti 334.903†	44533.6	2.144	mg/L	0.0114	10.72	mg/L	0.057	0.53%
Tl 190.801†	-9.8	0.00136	mg/L	0.001620	0.00680	mg/L	0.008100	119.12%
V 292.402†	10958.4	0.08850	mg/L	0.001053	0.4425	mg/L	0.00526	1.19%
Zn 206.200†	3822.2	1.069	mg/L	0.0055	5.345	mg/L	0.0277	0.52%

Sequence No.: 13
Sample ID: VR36 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 317
Date Collected: 11/19/2012 12:05:41 PM
Data Type: Original

Nebulizer Parameters: VR36 F SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2509833.6	105.2	%	0.42				0.40%
ScR 361.383	327612.2	107.3	%	0.46				0.43%
Ag 328.068†	-162.3	-0.00098	mg/L	0.000118	-0.00490	mg/L	0.000591	12.07%
Al 308.215†	79449.8	47.55	mg/L	0.236	237.7	mg/L	1.18	0.50%
As 188.979†	-73.9	0.01968	mg/L	0.001694	0.09842	mg/L	0.008469	8.60%
B 249.677†	26.4	0.00359	mg/L	0.000756	0.01795	mg/L	0.003779	21.05%
Ba 233.527†	1810.5	0.4221	mg/L	0.00174	2.110	mg/L	0.0087	0.41%
Be 313.042†	965.8	0.00152	mg/L	0.000012	0.00759	mg/L	0.000059	0.78%
Ca 317.933†	114748.0	8.627	mg/L	0.0414	43.14	mg/L	0.207	0.48%
Cd 228.802†	100.0	0.00319	mg/L	0.000028	0.01594	mg/L	0.000140	0.88%
Co 228.616†	903.3	0.02176	mg/L	0.000146	0.1088	mg/L	0.00073	0.67%
Cr 267.716†	397.3	0.06779	mg/L	0.000849	0.3389	mg/L	0.00424	1.25%
Cu 324.752†	10579.8	0.04525	mg/L	0.000498	0.2263	mg/L	0.00249	1.10%
Fe 273.955†	79007.0	60.18	mg/L	0.209	300.9	mg/L	1.04	0.35%
K 766.490†	10780.1	5.651	mg/L	0.0282	28.25	mg/L	0.141	0.50%
Mg 279.077†	18731.6	13.74	mg/L	0.049	68.68	mg/L	0.243	0.35%
Mn 257.610†	46889.9	1.312	mg/L	0.0037	6.559	mg/L	0.0186	0.28%
Mo 202.031†	31.7	0.00155	mg/L	0.000175	0.00775	mg/L	0.000874	11.27%
Na 589.592†	5903.2	0.5058	mg/L	0.00397	2.529	mg/L	0.0199	0.79%
Na 330.237†	-7.0	0.1018	mg/L	0.13621	0.5088	mg/L	0.68105	133.86%
Ni 231.604†	198.2	0.05303	mg/L	0.001206	0.2651	mg/L	0.00603	2.27%
Pb 220.353†	791.9	0.1150	mg/L	0.00107	0.5752	mg/L	0.00535	0.93%
Sb 206.836†	2.8	0.00124	mg/L	0.001304	0.00620	mg/L	0.006522	105.14%
Se 196.026†	7.2	0.00524	mg/L	0.001338	0.02619	mg/L	0.006692	25.56%
Si 288.158†	3401.6	1.634	mg/L	0.0071	8.170	mg/L	0.0354	0.43%
Sn 189.927†	-17.1	-0.00321	mg/L	0.000302	-0.01603	mg/L	0.001509	9.41%
Sr 421.552†	87513.6	0.1023	mg/L	0.00037	0.5115	mg/L	0.00185	0.36%
Ti 334.903†	46441.8	2.236	mg/L	0.0074	11.18	mg/L	0.037	0.33%
Tl 190.801†	-12.6	0.00041	mg/L	0.002989	0.00207	mg/L	0.014943	722.81%
V 292.402†	11648.6	0.09401	mg/L	0.001118	0.4701	mg/L	0.00559	1.19%
Zn 206.200†	1706.1	0.4771	mg/L	0.00020	2.386	mg/L	0.0010	0.04%

Sequence No.: 14
Sample ID: VR36 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 318
Date Collected: 11/19/2012 12:09:41 PM
Data Type: Original

Nebulizer Parameters: VR36 G SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR36 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2493711.0	104.6	%	0.28				0.26%
ScR 361.383	326395.1	106.9	%	0.70				0.66%
Ag 328.068†	-188.6	-0.00114	mg/L	0.000261	-0.00572	mg/L	0.001304	22.81%
Al 308.215†	77426.1	46.34	mg/L	0.880	231.7	mg/L	4.40	1.90%
As 188.979†	-93.2	0.00949	mg/L	0.003248	0.04746	mg/L	0.016242	34.23%
B 249.677†	26.0	0.00354	mg/L	0.001520	0.01771	mg/L	0.007598	42.90%
Ba 233.527†	1414.5	0.3281	mg/L	0.00659	1.640	mg/L	0.0330	2.01%
Be 313.042†	874.6	0.00137	mg/L	0.000020	0.00685	mg/L	0.000102	1.49%
Ca 317.933†	114376.4	8.599	mg/L	0.1776	43.00	mg/L	0.888	2.07%
Cd 228.802†	16.9	0.00044	mg/L	0.000097	0.00219	mg/L	0.000485	22.13%
Co 228.616†	815.1	0.01910	mg/L	0.000188	0.09548	mg/L	0.000941	0.99%
Cr 267.716†	381.3	0.06504	mg/L	0.002279	0.3252	mg/L	0.01140	3.50%
Cu 324.752†	9659.3	0.04136	mg/L	0.000620	0.2068	mg/L	0.00310	1.50%
Fe 273.955†	75178.2	57.26	mg/L	1.128	286.3	mg/L	5.64	1.97%
K 766.490†	10379.2	5.441	mg/L	0.1210	27.20	mg/L	0.605	2.22%
Mg 279.077†	18387.5	13.48	mg/L	0.271	67.42	mg/L	1.356	2.01%
Mn 257.610†	34360.0	0.9613	mg/L	0.01884	4.806	mg/L	0.0942	1.96%
Mo 202.031†	22.2	0.00106	mg/L	0.000073	0.00528	mg/L	0.000367	6.95%
Na 589.592†	6386.7	0.5472	mg/L	0.01327	2.736	mg/L	0.0664	2.43%
Na 330.237†	-9.2	0.1288	mg/L	0.18992	0.6440	mg/L	0.94961	147.46%
Ni 231.604†	182.6	0.04886	mg/L	0.001824	0.2443	mg/L	0.00912	3.73%
Pb 220.353†	112.5	0.02386	mg/L	0.000751	0.1193	mg/L	0.00375	3.15%
Sb 206.836†	6.7	0.00254	mg/L	0.000715	0.01269	mg/L	0.003576	28.19%
Se 196.026†	5.3	0.00382	mg/L	0.002348	0.01911	mg/L	0.011742	61.44%
Si 288.158†	3126.6	1.502	mg/L	0.0261	7.510	mg/L	0.1306	1.74%
Sn 189.927†	-15.7	-0.00282	mg/L	0.001324	-0.01411	mg/L	0.006620	46.92%
Sr 421.552†	84928.1	0.09928	mg/L	0.002059	0.4964	mg/L	0.01029	2.07%
Ti 334.903†	47315.3	2.278	mg/L	0.0443	11.39	mg/L	0.222	1.95%
Tl 190.801†	-14.6	-0.00077	mg/L	0.003980	-0.00383	mg/L	0.019900	520.13%
V 292.402†	11498.0	0.09277	mg/L	0.001164	0.4639	mg/L	0.00582	1.25%
Zn 206.200†	650.8	0.1820	mg/L	0.00469	0.9100	mg/L	0.02343	2.57%

Sequence No.: 15
Sample ID: VR36 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 319
Date Collected: 11/19/2012 12:13:41 PM
Data Type: Original

Nebulizer Parameters: VR36 H SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2498913.4	104.8	%	0.15				0.14%
ScR 361.383	327443.7	107.2	%	0.79				0.73%
Ag 328.068†	107.1	0.00070	mg/L	0.000201	0.00349	mg/L	0.001004	28.77%
Al 308.215†	137875.9	82.52	mg/L	1.463	412.6	mg/L	7.32	1.77%
As 188.979†	30.6	0.1045	mg/L	0.00115	0.5224	mg/L	0.00575	1.10%
B 249.677†	50.3	0.00688	mg/L	0.000508	0.03442	mg/L	0.002542	7.39%
Ba 233.527†	2897.5	0.6804	mg/L	0.01316	3.402	mg/L	0.0658	1.93%
Be 313.042†	1320.9	0.00208	mg/L	0.000051	0.01040	mg/L	0.000253	2.43%
Ca 317.933†	182012.9	13.68	mg/L	0.249	68.42	mg/L	1.245	1.82%
Cd 228.802†	1034.2	0.03471	mg/L	0.000666	0.1736	mg/L	0.00333	1.92%
Co 228.616†	958.0	0.02172	mg/L	0.000335	0.1086	mg/L	0.00167	1.54%
Cr 267.716†	331.9	0.05689	mg/L	0.001288	0.2845	mg/L	0.00644	2.26%
Cu 324.752†	29568.7	0.1228	mg/L	0.00260	0.6142	mg/L	0.01302	2.12%
Fe 273.955†	87406.5	66.58	mg/L	1.059	332.9	mg/L	5.30	1.59%
K 766.490†	9021.6	4.729	mg/L	0.1104	23.64	mg/L	0.552	2.33%
Mg 279.077†	17784.3	13.04	mg/L	0.231	65.18	mg/L	1.157	1.77%
Mn 257.610†	81459.3	2.279	mg/L	0.0385	11.39	mg/L	0.193	1.69%
Mo 202.031†	45.7	0.00222	mg/L	0.000247	0.01112	mg/L	0.001233	11.09%
Na 589.592†	9523.8	0.8160	mg/L	0.01467	4.080	mg/L	0.0733	1.80%
Na 330.237†	6.5	0.2278	mg/L	0.07634	1.139	mg/L	0.3817	33.50%
Ni 231.604†	178.0	0.04762	mg/L	0.000921	0.2381	mg/L	0.00460	1.93%
Pb 220.353†	10080.1	1.367	mg/L	0.0233	6.836	mg/L	0.1163	1.70%
Sb 206.836†	26.4	0.00937	mg/L	0.001591	0.04685	mg/L	0.007955	16.98%
Se 196.026†	12.9	0.00946	mg/L	0.003670	0.04731	mg/L	0.018349	38.78%
Si 288.158†	2043.8	0.9825	mg/L	0.01539	4.912	mg/L	0.0770	1.57%
Sn 189.927†	-3.0	0.00136	mg/L	0.000437	0.00682	mg/L	0.002186	32.05%
Sr 421.552†	108574.3	0.1269	mg/L	0.00237	0.6346	mg/L	0.01187	1.87%
Ti 334.903†	63255.5	3.045	mg/L	0.0526	15.23	mg/L	0.263	1.73%
Tl 190.801†	-14.0	0.00042	mg/L	0.002779	0.00211	mg/L	0.013896	658.52%
V 292.402†	13914.6	0.1123	mg/L	0.00235	0.5614	mg/L	0.01174	2.09%
Zn 206.200†	7568.9	2.117	mg/L	0.0375	10.58	mg/L	0.188	1.77%

Sequence No.: 16
Sample ID: VR36 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 320
Date Collected: 11/19/2012 12:17:41 PM
Data Type: Original

Nebulizer Parameters: VR36 I SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR36 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2508686.0	105.2	%	0.10				0.09%
ScR 361.383	328344.1	107.5	%	0.43				0.40%
Ag 328.068†	65.5	0.00043	mg/L	0.000155	0.00215	mg/L	0.000777	36.18%
Al 308.215†	68408.6	40.94	mg/L	0.197	204.7	mg/L	0.98	0.48%
As 188.979†	47.9	0.07909	mg/L	0.002278	0.3954	mg/L	0.01139	2.88%
B 249.677†	39.9	0.00547	mg/L	0.000586	0.02735	mg/L	0.002930	10.71%
Ba 233.527†	3201.8	0.7554	mg/L	0.00775	3.777	mg/L	0.0388	1.03%
Be 313.042†	818.5	0.00129	mg/L	0.000025	0.00644	mg/L	0.000127	1.97%
Ca 317.933†	209604.4	15.76	mg/L	0.094	78.79	mg/L	0.472	0.60%
Cd 228.802†	1158.5	0.03904	mg/L	0.000421	0.1952	mg/L	0.00210	1.08%
Co 228.616†	725.3	0.01738	mg/L	0.000387	0.08688	mg/L	0.001936	2.23%
Cr 267.716†	319.1	0.05428	mg/L	0.000963	0.2714	mg/L	0.00481	1.77%
Cu 324.752†	17411.9	0.07286	mg/L	0.001307	0.3643	mg/L	0.00654	1.79%
Fe 273.955†	67808.1	51.65	mg/L	0.162	258.3	mg/L	0.81	0.31%
K 766.490†	8312.8	4.357	mg/L	0.0070	21.79	mg/L	0.035	0.16%
Mg 279.077†	15006.8	11.00	mg/L	0.040	55.01	mg/L	0.198	0.36%
Mn 257.610†	100094.1	2.800	mg/L	0.0141	14.00	mg/L	0.070	0.50%
Mo 202.031†	51.3	0.00249	mg/L	0.000365	0.01247	mg/L	0.001823	14.62%
Na 589.592†	5021.5	0.4302	mg/L	0.00808	2.151	mg/L	0.0404	1.88%
Na 330.237†	6.2	-0.05439	mg/L	0.050179	-0.2719	mg/L	0.25089	92.26%
Ni 231.604†	173.1	0.04630	mg/L	0.000500	0.2315	mg/L	0.00250	1.08%
Pb 220.353†	9671.5	1.303	mg/L	0.0193	6.516	mg/L	0.0964	1.48%
Sb 206.836†	23.1	0.00769	mg/L	0.001450	0.03846	mg/L	0.007249	18.85%
Se 196.026†	1.8	0.00128	mg/L	0.005557	0.00638	mg/L	0.027784	435.46%
Si 288.158†	3439.8	1.652	mg/L	0.0193	8.261	mg/L	0.0963	1.17%
Sn 189.927†	-1.1	0.00195	mg/L	0.001261	0.00975	mg/L	0.006304	64.66%
Sr 421.552†	120636.3	0.1410	mg/L	0.00076	0.7051	mg/L	0.00382	0.54%
Ti 334.903†	37501.5	1.805	mg/L	0.0119	9.026	mg/L	0.0594	0.66%
Tl 190.801†	-4.3	0.00323	mg/L	0.003055	0.01614	mg/L	0.015273	94.62%
V 292.402†	9480.6	0.07669	mg/L	0.001541	0.3835	mg/L	0.00770	2.01%
Zn 206.200†	7443.6	2.082	mg/L	0.0217	10.41	mg/L	0.108	1.04%

Sequence No.: 17
Sample ID: VR36 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/19/2012 12:21:41 PM
Data Type: Original

Nebulizer Parameters: VR36 J SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2497648.0	104.7	%	0.55				0.52%
ScR 361.383	325775.9	106.7	%	0.35				0.33%
Ag 328.068†	114.4	0.00073	mg/L	0.000054	0.00365	mg/L	0.000270	7.40%
Al 308.215†	65439.2	39.17	mg/L	0.401	195.8	mg/L	2.01	1.02%
As 188.979†	133.5	0.1178	mg/L	0.00343	0.5891	mg/L	0.01717	2.91%
B 249.677†	23.0	0.00315	mg/L	0.000671	0.01574	mg/L	0.003353	21.31%
Ba 233.527†	2636.8	0.6223	mg/L	0.01018	3.111	mg/L	0.0509	1.64%
Be 313.042†	795.0	0.00126	mg/L	0.000038	0.00629	mg/L	0.000189	3.01%
Ca 317.933†	118667.3	8.922	mg/L	0.0763	44.61	mg/L	0.381	0.85%
Cd 228.802†	1112.0	0.03720	mg/L	0.000942	0.1860	mg/L	0.00471	2.53%
Co 228.616†	537.3	0.01275	mg/L	0.000323	0.06375	mg/L	0.001613	2.53%
Cr 267.716†	232.5	0.03967	mg/L	0.000859	0.1983	mg/L	0.00429	2.16%
Cu 324.752†	23435.1	0.09710	mg/L	0.002795	0.4855	mg/L	0.01397	2.88%
Fe 273.955†	54605.4	41.59	mg/L	0.452	208.0	mg/L	2.26	1.09%
K 766.490†	4566.4	2.394	mg/L	0.0342	11.97	mg/L	0.171	1.43%
Mg 279.077†	11660.4	8.548	mg/L	0.1084	42.74	mg/L	0.542	1.27%
Mn 257.610†	78029.2	2.183	mg/L	0.0217	10.92	mg/L	0.109	1.00%
Mo 202.031†	42.6	0.00211	mg/L	0.000286	0.01057	mg/L	0.001429	13.52%
Na 589.592†	4124.7	0.3534	mg/L	0.00425	1.767	mg/L	0.0212	1.20%
Na 330.237†	6.1	0.07678	mg/L	0.185854	0.3839	mg/L	0.92927	242.06%
Ni 231.604†	124.6	0.03334	mg/L	0.001491	0.1667	mg/L	0.00746	4.47%
Pb 220.353†	10256.1	1.381	mg/L	0.0346	6.907	mg/L	0.1732	2.51%
Sb 206.836†	50.0	0.01622	mg/L	0.001008	0.08109	mg/L	0.005041	6.22%
Se 196.026†	7.7	0.00566	mg/L	0.003361	0.02830	mg/L	0.016806	59.38%
Si 288.158†	4799.6	2.304	mg/L	0.0307	11.52	mg/L	0.153	1.33%
Sn 189.927†	0.8	0.00158	mg/L	0.000592	0.00788	mg/L	0.002961	37.59%
Sr 421.552†	77386.8	0.09047	mg/L	0.000973	0.4523	mg/L	0.00486	1.08%
Ti 334.903†	28555.3	1.375	mg/L	0.0113	6.873	mg/L	0.0565	0.82%
Tl 190.801†	-6.6	0.00122	mg/L	0.000470	0.00608	mg/L	0.002350	38.63%
V 292.402†	8140.5	0.06598	mg/L	0.002132	0.3299	mg/L	0.01066	3.23%
Zn 206.200†	4936.2	1.381	mg/L	0.0187	6.903	mg/L	0.0933	1.35%

Sequence No.: 18
Sample ID: VR36 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 322
Date Collected: 11/19/2012 12:25:41 PM
Data Type: Original

Nebulizer Parameters: VR36 K SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR36 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2499970.4	104.8	%	0.30				0.29%
ScR 361.383	323055.5	105.8	%	0.82				0.77%
Ag 328.068†	242.2	0.00152	mg/L	0.000232	0.00761	mg/L	0.001158	15.22%
Al 308.215†	50443.7	30.19	mg/L	0.369	150.9	mg/L	1.85	1.22%
As 188.979†	71.6	0.08109	mg/L	0.001283	0.4054	mg/L	0.00642	1.58%
B 249.677†	13.7	0.00186	mg/L	0.000714	0.00929	mg/L	0.003569	38.42%
Ba 233.527†	1935.9	0.4559	mg/L	0.00565	2.280	mg/L	0.0283	1.24%
Be 313.042†	624.2	0.00098	mg/L	0.000021	0.00491	mg/L	0.000107	2.18%
Ca 317.933†	170716.7	12.84	mg/L	0.168	64.18	mg/L	0.840	1.31%
Cd 228.802†	1316.7	0.04450	mg/L	0.000850	0.2225	mg/L	0.00425	1.91%
Co 228.616†	492.3	0.01148	mg/L	0.000199	0.05742	mg/L	0.000994	1.73%
Cr 267.716†	205.8	0.03505	mg/L	0.000915	0.1753	mg/L	0.00458	2.61%
Cu 324.752†	19080.3	0.07911	mg/L	0.000897	0.3955	mg/L	0.00449	1.13%
Fe 273.955†	47739.2	36.36	mg/L	0.487	181.8	mg/L	2.43	1.34%
K 766.490†	3692.1	1.935	mg/L	0.0245	9.677	mg/L	0.1227	1.27%
Mg 279.077†	10647.6	7.807	mg/L	0.0630	39.03	mg/L	0.315	0.81%
Mn 257.610†	57820.9	1.618	mg/L	0.0217	8.089	mg/L	0.1086	1.34%
Mo 202.031†	51.3	0.00253	mg/L	0.000336	0.01263	mg/L	0.001682	13.33%
Na 589.592†	3305.3	0.2832	mg/L	0.00441	1.416	mg/L	0.0221	1.56%
Na 330.237†	1.8	-0.1727	mg/L	0.16434	-0.8635	mg/L	0.82169	95.16%
Ni 231.604†	112.7	0.03017	mg/L	0.000306	0.1508	mg/L	0.00153	1.01%
Pb 220.353†	16172.9	2.172	mg/L	0.0183	10.86	mg/L	0.091	0.84%
Sb 206.836†	122.1	0.03929	mg/L	0.001743	0.1965	mg/L	0.00872	4.44%
Se 196.026†	9.2	0.00677	mg/L	0.003005	0.03386	mg/L	0.015025	44.37%
Si 288.158†	4044.3	1.942	mg/L	0.0182	9.709	mg/L	0.0909	0.94%
Sn 189.927†	15.6	0.00607	mg/L	0.001260	0.03036	mg/L	0.006301	20.75%
Sr 421.552†	115893.0	0.1355	mg/L	0.00186	0.6774	mg/L	0.00930	1.37%
Ti 334.903†	28630.2	1.378	mg/L	0.0192	6.891	mg/L	0.0962	1.40%
Tl 190.801†	1.1	0.00407	mg/L	0.001063	0.02037	mg/L	0.005317	26.10%
V 292.402†	7634.1	0.06185	mg/L	0.000893	0.3092	mg/L	0.00447	1.44%
Zn 206.200†	5976.9	1.672	mg/L	0.0135	8.358	mg/L	0.0677	0.81%

Sequence No.: 19
Sample ID: VR36 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 323
Date Collected: 11/19/2012 12:29:40 PM
Data Type: Original

Nebulizer Parameters: VR36 L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR36 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2488775.6	104.4	%	0.71				0.68%
ScR 361.383	327994.2	107.4	%	1.30				1.21%
Ag 328.068†	-129.7	-0.00078	mg/L	0.000405	-0.00392	mg/L	0.002026	51.72%
Al 308.215†	70108.1	41.96	mg/L	1.026	209.8	mg/L	5.13	2.45%
As 188.979†	-45.7	0.02220	mg/L	0.001300	0.1110	mg/L	0.00650	5.85%
B 249.677†	23.5	0.00321	mg/L	0.001147	0.01604	mg/L	0.005733	35.75%
Ba 233.527†	1595.4	0.3732	mg/L	0.00682	1.866	mg/L	0.0341	1.83%
Be 313.042†	730.8	0.00115	mg/L	0.000032	0.00574	mg/L	0.000160	2.78%
Ca 317.933†	102843.0	7.732	mg/L	0.1820	38.66	mg/L	0.910	2.35%
Cd 228.802†	124.0	0.00403	mg/L	0.000302	0.02013	mg/L	0.001510	7.50%
Co 228.616†	584.8	0.01344	mg/L	0.000264	0.06720	mg/L	0.001322	1.97%
Cr 267.716†	247.7	0.04237	mg/L	0.000923	0.2118	mg/L	0.00462	2.18%
Cu 324.752†	8385.2	0.03576	mg/L	0.000592	0.1788	mg/L	0.00296	1.66%
Fe 273.955†	59127.7	45.04	mg/L	0.954	225.2	mg/L	4.77	2.12%
K 766.490†	3981.9	2.087	mg/L	0.0342	10.44	mg/L	0.171	1.64%
Mg 279.077†	13349.1	9.788	mg/L	0.2354	48.94	mg/L	1.177	2.40%
Mn 257.610†	51477.4	1.440	mg/L	0.0326	7.200	mg/L	0.1628	2.26%
Mo 202.031†	35.7	0.00177	mg/L	0.000500	0.00886	mg/L	0.002499	28.20%
Na 589.592†	3866.4	0.3313	mg/L	0.00649	1.656	mg/L	0.0325	1.96%
Na 330.237†	-9.7	-0.1257	mg/L	0.33413	-0.6285	mg/L	1.67063	265.83%
Ni 231.604†	138.6	0.03709	mg/L	0.001098	0.1854	mg/L	0.00549	2.96%
Pb 220.353†	438.1	0.06691	mg/L	0.001600	0.3345	mg/L	0.00800	2.39%
Sb 206.836†	8.6	0.00317	mg/L	0.002280	0.01586	mg/L	0.011400	71.87%
Se 196.026†	4.7	0.00342	mg/L	0.003362	0.01709	mg/L	0.016810	98.37%
Si 288.158†	5084.2	2.441	mg/L	0.0426	12.20	mg/L	0.213	1.74%
Sn 189.927†	-12.7	-0.00221	mg/L	0.001030	-0.01103	mg/L	0.005148	46.68%
Sr 421.552†	73333.2	0.08573	mg/L	0.002002	0.4286	mg/L	0.01001	2.33%
Ti 334.903†	36078.3	1.737	mg/L	0.0405	8.685	mg/L	0.2027	2.33%
Tl 190.801†	-9.5	0.00029	mg/L	0.000900	0.00143	mg/L	0.004498	315.11%
V 292.402†	8987.0	0.07260	mg/L	0.000626	0.3630	mg/L	0.00313	0.86%
Zn 206.200†	1870.6	0.5231	mg/L	0.00882	2.616	mg/L	0.0441	1.69%

Sequence No.: 20
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 12:33:40 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	2456833.2	103.0	%	0.68				0.66%
ScR 361.383	317011.9	103.8	%	2.28				2.20%
Ag 328.068†	163302.2	1.014	mg/L	0.0082	1.014	mg/L	0.0082	0.81%
Al 308.215†	3328.8	1.958	mg/L	0.0283	1.958	mg/L	0.0283	1.44%
As 188.979†	3467.3	2.078	mg/L	0.0127	2.078	mg/L	0.0127	0.61%
B 249.677†	7059.6	0.9734	mg/L	0.01898	0.9734	mg/L	0.01898	1.95%
Ba 233.527†	4050.0	0.9658	mg/L	0.01296	0.9658	mg/L	0.01296	1.34%
Be 313.042†	615163.4	0.9961	mg/L	0.01942	0.9961	mg/L	0.01942	1.95%
Ca 317.933†	26530.4	1.995	mg/L	0.0363	1.995	mg/L	0.0363	1.82%
Cd 228.802†	30535.4	1.033	mg/L	0.0078	1.033	mg/L	0.0078	0.75%
Co 228.616†	33617.9	0.9993	mg/L	0.00738	0.9993	mg/L	0.00738	0.74%
Cr 267.716†	5930.4	0.9974	mg/L	0.01806	0.9974	mg/L	0.01806	1.81%
Cu 324.752†	244178.4	0.9959	mg/L	0.00248	0.9959	mg/L	0.00248	0.25%
Fe 273.955†	2710.7	2.058	mg/L	0.0439	2.058	mg/L	0.0439	2.13%
K 766.490†	37584.0	19.70	mg/L	0.484	19.70	mg/L	0.484	2.46%
Mg 279.077†	2659.3	1.962	mg/L	0.0387	1.962	mg/L	0.0387	1.97%
Mn 257.610†	36764.7	1.029	mg/L	0.0197	1.029	mg/L	0.0197	1.91%
Mo 202.031†	19012.5	0.9882	mg/L	0.00594	0.9882	mg/L	0.00594	0.60%
Na 589.592†	585858.3	50.19	mg/L	1.075	50.19	mg/L	1.075	2.14%
Na 330.237†	1428.9	51.02	mg/L	0.650	51.02	mg/L	0.650	1.27%
Ni 231.604†	3649.0	0.9763	mg/L	0.01483	0.9763	mg/L	0.01483	1.52%
Pb 220.353†	14789.4	1.982	mg/L	0.0147	1.982	mg/L	0.0147	0.74%
Sb 206.836†	6631.3	2.112	mg/L	0.0145	2.112	mg/L	0.0145	0.69%
Se 196.026†	2774.7	2.053	mg/L	0.0202	2.053	mg/L	0.0202	0.99%
Si 288.158†	4160.7	1.996	mg/L	0.0319	1.996	mg/L	0.0319	1.60%
Sn 189.927†	3796.2	1.021	mg/L	0.0069	1.021	mg/L	0.0069	0.68%
Sr 421.552†	853276.4	0.9975	mg/L	0.02150	0.9975	mg/L	0.02150	2.16%
Ti 334.903†	21064.0	1.013	mg/L	0.0196	1.013	mg/L	0.0196	1.94%
Tl 190.801†	4550.7	1.982	mg/L	0.0110	1.982	mg/L	0.0110	0.55%
V 292.402†	121539.1	1.015	mg/L	0.0068	1.015	mg/L	0.0068	0.67%
Zn 206.200†	3677.6	1.028	mg/L	0.0197	1.028	mg/L	0.0197	1.92%

Sequence No.: 21
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 12:38:00 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	2470619.2	103.6	%	0.19				0.19%
ScR 361.383	321613.6	105.3	%	0.38				0.36%
Ag 328.068†	-27.4	-0.00017	mg/L	0.000286	-0.00017	mg/L	0.000286	168.68%
Al 308.215†	-3.3	-0.00201	mg/L	0.000908	-0.00201	mg/L	0.000908	45.18%
As 188.979†	0.4	0.00023	mg/L	0.001024	0.00023	mg/L	0.001024	438.81%
B 249.677†	9.7	0.00133	mg/L	0.001078	0.00133	mg/L	0.001078	80.87%
Ba 233.527†	-2.4	-0.00057	mg/L	0.000336	-0.00057	mg/L	0.000336	58.76%
Be 313.042†	38.1	0.00006	mg/L	0.000027	0.00006	mg/L	0.000027	43.27%
Ca 317.933†	-10.4	-0.00078	mg/L	0.001029	-0.00078	mg/L	0.001029	131.38%
Cd 228.802†	-10.1	-0.00035	mg/L	0.000135	-0.00035	mg/L	0.000135	39.13%
Co 228.616†	7.7	0.00023	mg/L	0.000126	0.00023	mg/L	0.000126	55.10%
Cr 267.716†	10.2	0.00172	mg/L	0.000799	0.00172	mg/L	0.000799	46.39%
Cu 324.752†	-228.0	-0.00093	mg/L	0.000133	-0.00093	mg/L	0.000133	14.27%
Fe 273.955†	3.0	0.00229	mg/L	0.000785	0.00229	mg/L	0.000785	34.33%
K 766.490†	-76.7	-0.04018	mg/L	0.010197	-0.04018	mg/L	0.010197	25.38%
Mg 279.077†	-6.9	-0.00508	mg/L	0.001555	-0.00508	mg/L	0.001555	30.60%
Mn 257.610†	0.7	0.00002	mg/L	0.000048	0.00002	mg/L	0.000048	246.88%
Mo 202.031†	9.1	0.00048	mg/L	0.000161	0.00048	mg/L	0.000161	33.88%
Na 589.592†	164.0	0.01405	mg/L	0.002620	0.01405	mg/L	0.002620	18.65%
Na 330.237†	1.6	0.05778	mg/L	0.303900	0.05778	mg/L	0.303900	525.95%
Ni 231.604†	8.6	0.00229	mg/L	0.000910	0.00229	mg/L	0.000910	39.70%
Pb 220.353†	-2.4	-0.00032	mg/L	0.000624	-0.00032	mg/L	0.000624	193.37%
Sb 206.836†	7.4	0.00231	mg/L	0.001296	0.00231	mg/L	0.001296	56.03%
Se 196.026†	-2.9	-0.00218	mg/L	0.003507	-0.00218	mg/L	0.003507	161.10%
Si 288.158†	0.6	0.00028	mg/L	0.001866	0.00028	mg/L	0.001866	677.67%
Sn 189.927†	-2.6	-0.00069	mg/L	0.000388	-0.00069	mg/L	0.000388	56.21%
Sr 421.552†	32.8	0.00004	mg/L	0.000048	0.00004	mg/L	0.000048	124.62%
Ti 334.903†	-14.6	-0.00070	mg/L	0.000350	-0.00070	mg/L	0.000350	49.85%
Tl 190.801†	-3.0	-0.00132	mg/L	0.000386	-0.00132	mg/L	0.000386	29.27%
V 292.402†	-3.7	-0.00002	mg/L	0.000096	-0.00002	mg/L	0.000096	416.69%
Zn 206.200†	-1.2	-0.00033	mg/L	0.000621	-0.00033	mg/L	0.000621	190.06%

Sequence No.: 22
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/19/2012 12:42:15 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	222.0 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	2513279.6	105.4	%	0.27				0.25%
ScR 361.383	326014.5	106.8	%	0.08				0.08%
Ag 328.068†	486.5	0.00302	mg/L	0.000049	0.00302	mg/L	0.000049	1.63%
Al 308.215†	83.3	0.04969	mg/L	0.004372	0.04969	mg/L	0.004372	8.80%
As 188.979†	84.8	0.05035	mg/L	0.001641	0.05035	mg/L	0.001641	3.26%
B 249.677†	138.9	0.01916	mg/L	0.000425	0.01916	mg/L	0.000425	2.22%
Ba 233.527†	9.7	0.00230	mg/L	0.001034	0.00230	mg/L	0.001034	44.93%
Be 313.042†	588.2	0.00095	mg/L	0.000017	0.00095	mg/L	0.000017	1.81%
Ca 317.933†	643.3	0.04837	mg/L	0.000646	0.04837	mg/L	0.000646	1.34%
Cd 228.802†	53.0	0.00149	mg/L	0.000063	0.00149	mg/L	0.000063	4.19%
Co 228.616†	125.0	0.00371	mg/L	0.000111	0.00371	mg/L	0.000111	3.00%
Cr 267.716†	36.6	0.00616	mg/L	0.000988	0.00616	mg/L	0.000988	16.05%
Cu 324.752†	257.6	0.00105	mg/L	0.000144	0.00105	mg/L	0.000144	13.73%
Fe 273.955†	70.1	0.05338	mg/L	0.002358	0.05338	mg/L	0.002358	4.42%
K 766.490†	873.4	0.4578	mg/L	0.00970	0.4578	mg/L	0.00970	2.12%
Mg 279.077†	52.2	0.03839	mg/L	0.004056	0.03839	mg/L	0.004056	10.56%
Mn 257.610†	37.1	0.00104	mg/L	0.000011	0.00104	mg/L	0.000011	1.09%
Mo 202.031†	96.0	0.00499	mg/L	0.000222	0.00499	mg/L	0.000222	4.45%
Na 589.592†	5664.5	0.4853	mg/L	0.00087	0.4853	mg/L	0.00087	0.18%
Na 330.237†	13.7	0.4887	mg/L	0.37311	0.4887	mg/L	0.37311	76.35%
Ni 231.604†	43.5	0.01165	mg/L	0.000645	0.01165	mg/L	0.000645	5.54%
Pb 220.353†	146.7	0.01968	mg/L	0.000513	0.01968	mg/L	0.000513	2.61%
Sb 206.836†	155.7	0.04963	mg/L	0.000217	0.04963	mg/L	0.000217	0.44%
Se 196.026†	68.1	0.05038	mg/L	0.004089	0.05038	mg/L	0.004089	8.12%
Si 288.158†	126.2	0.06051	mg/L	0.001666	0.06051	mg/L	0.001666	2.75%
Sn 189.927†	37.7	0.01014	mg/L	0.000880	0.01014	mg/L	0.000880	8.68%
Sr 421.552†	857.4	0.00100	mg/L	0.000045	0.00100	mg/L	0.000045	4.51%
Ti 334.903†	105.6	0.00508	mg/L	0.000873	0.00508	mg/L	0.000873	17.19%
Tl 190.801†	110.7	0.04842	mg/L	0.000700	0.04842	mg/L	0.000700	1.45%
V 292.402†	344.3	0.00289	mg/L	0.000033	0.00289	mg/L	0.000033	1.13%
Zn 206.200†	35.3	0.00987	mg/L	0.000553	0.00987	mg/L	0.000553	5.61%

Sequence No.: 23
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/19/2012 12:46:31 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	221.0 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	2448333.2	102.7	%	0.60				0.59%
ScR 361.383	318568.5	104.3	%	0.95				0.91%
Ag 328.068†	-221.0	-0.00137	mg/L	0.000153	-0.00137	mg/L	0.000153	11.16%
Al 308.215†	324358.9	194.1	mg/L	2.16	194.1	mg/L	2.16	1.11%
As 188.979†	36.5	0.01614	mg/L	0.001253	0.01614	mg/L	0.001253	7.77%
B 249.677†	-14.2	-0.00196	mg/L	0.001512	-0.00196	mg/L	0.001512	77.14%
Ba 233.527†	125.8	-0.00175	mg/L	0.002292	-0.00175	mg/L	0.002292	130.63%
Be 313.042†	27.0	0.00004	mg/L	0.000024	0.00004	mg/L	0.000024	58.13%
Ca 317.933†	1282970.2	96.46	mg/L	1.030	96.46	mg/L	1.030	1.07%
Cd 228.802†	39.9	-0.00062	mg/L	0.000128	-0.00062	mg/L	0.000128	20.65%
Co 228.616†	68.8	-0.00049	mg/L	0.000251	-0.00049	mg/L	0.000251	51.25%
Cr 267.716†	20.2	0.00150	mg/L	0.000876	0.00150	mg/L	0.000876	58.40%
Cu 324.752†	-2197.0	-0.00123	mg/L	0.000036	-0.00123	mg/L	0.000036	2.97%
Fe 273.955†	254800.6	194.1	mg/L	2.24	194.1	mg/L	2.24	1.16%
K 766.490†	-36.8	-0.01928	mg/L	0.017694	-0.01928	mg/L	0.017694	91.75%
Mg 279.077†	136150.9	99.97	mg/L	1.181	99.97	mg/L	1.181	1.18%
Mn 257.610†	32.7	0.00091	mg/L	0.000187	0.00091	mg/L	0.000187	20.69%
Mo 202.031†	37.4	0.00090	mg/L	0.000271	0.00090	mg/L	0.000271	29.96%
Na 589.592†	284.9	0.02441	mg/L	0.001478	0.02441	mg/L	0.001478	6.06%
Na 330.237†	-6.4	-0.2282	mg/L	0.20550	-0.2282	mg/L	0.20550	90.05%
Ni 231.604†	6.7	0.00180	mg/L	0.001224	0.00180	mg/L	0.001224	67.87%
Pb 220.353†	-274.3	0.00174	mg/L	0.000168	0.00174	mg/L	0.000168	9.61%
Sb 206.836†	22.3	0.00696	mg/L	0.004484	0.00696	mg/L	0.004484	64.39%
Se 196.026†	12.3	0.00912	mg/L	0.001018	0.00912	mg/L	0.001018	11.17%
Si 288.158†	-30.0	-0.00230	mg/L	0.003749	-0.00230	mg/L	0.003749	163.16%
Sn 189.927†	-60.3	-0.00426	mg/L	0.001322	-0.00426	mg/L	0.001322	31.02%
Sr 421.552†	3368.5	0.00394	mg/L Conf.	0.000024	0.00394	mg/L	0.000024	0.60%
Ti 334.903†	117.6	0.00106	mg/L	0.000477	0.00106	mg/L	0.000477	45.05%
Tl 190.801†	-60.4	-0.00572	mg/L	0.000851	-0.00572	mg/L	0.000851	14.88%
V 292.402†	1591.0	0.00646	mg/L	0.000433	0.00646	mg/L	0.000433	6.70%
Zn 206.200†	11.6	0.00325	mg/L	0.000785	0.00325	mg/L	0.000785	24.13%

Sequence No.: 24
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/19/2012 12:50:47 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	222.0 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	2466189.3	103.4	%	0.30				0.29%
ScR 361.383	321580.5	105.3	%	1.39				1.32%
Ag 328.068†	157780.6	0.9800	mg/L	0.00103	0.9800	mg/L	0.00103	0.11%
Al 308.215†	321081.6	192.2	mg/L	2.58	192.2	mg/L	2.58	1.34%
As 188.979†	1737.4	1.022	mg/L	0.0049	1.022	mg/L	0.0049	0.48%
B 249.677†	1.2	-0.00179	mg/L	0.000436	-0.00179	mg/L	0.000436	24.29%
Ba 233.527†	4171.2	0.9632	mg/L	0.01290	0.9632	mg/L	0.01290	1.34%
Be 313.042†	615285.8	0.9963	mg/L	0.01314	0.9963	mg/L	0.01314	1.32%
Ca 317.933†	1291477.2	97.10	mg/L	1.253	97.10	mg/L	1.253	1.29%
Cd 228.802†	29698.6	1.009	mg/L	0.0032	1.009	mg/L	0.0032	0.32%
Co 228.616†	31962.7	0.9493	mg/L	0.00241	0.9493	mg/L	0.00241	0.25%
Cr 267.716†	5936.0	0.9968	mg/L	0.01286	0.9968	mg/L	0.01286	1.29%
Cu 324.752†	244225.0	1.004	mg/L	0.0019	1.004	mg/L	0.0019	0.19%
Fe 273.955†	255284.9	194.5	mg/L	2.24	194.5	mg/L	2.24	1.15%
K 766.490†	-146.9	-0.07698	mg/L	0.019648	-0.07698	mg/L	0.019648	25.52%
Mg 279.077†	131555.8	96.59	mg/L	1.240	96.59	mg/L	1.240	1.28%
Mn 257.610†	34602.3	0.9681	mg/L	0.01170	0.9681	mg/L	0.01170	1.21%
Mo 202.031†	43.4	0.00115	mg/L	0.000252	0.00115	mg/L	0.000252	21.82%
Na 589.592†	428.4	0.03670	mg/L	0.000913	0.03670	mg/L	0.000913	2.49%
Na 330.237†	8.7	-0.00473	mg/L	0.145909	-0.00473	mg/L	0.145909	>999.9%
Ni 231.604†	3575.6	0.9566	mg/L	0.01352	0.9566	mg/L	0.01352	1.41%
Pb 220.353†	6951.0	0.9697	mg/L	0.00289	0.9697	mg/L	0.00289	0.30%
Sb 206.836†	3140.5	0.9897	mg/L	0.00333	0.9897	mg/L	0.00333	0.34%
Se 196.026†	1368.4	1.012	mg/L	0.0050	1.012	mg/L	0.0050	0.50%
Si 288.158†	-39.0	-0.00337	mg/L	0.002000	-0.00337	mg/L	0.002000	59.39%
Sn 189.927†	-62.9	-0.00440	mg/L	0.001084	-0.00440	mg/L	0.001084	24.61%
Sr 421.552†	3312.9	0.00387	mg/L	Conf. 0.000058	0.00387	mg/L	0.000058	1.50%
Ti 334.903†	112.4	0.00058	mg/L	0.000173	0.00058	mg/L	0.000173	29.92%
Tl 190.801†	2068.9	0.9168	mg/L	0.00380	0.9168	mg/L	0.00380	0.41%
V 292.402†	115475.7	0.9581	mg/L	0.00052	0.9581	mg/L	0.00052	0.05%
Zn 206.200†	3453.0	0.9657	mg/L	0.01395	0.9657	mg/L	0.01395	1.44%

Sequence No.: 25
Sample ID: CV5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 12:54:36 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	2469138.8	103.5	%	0.67				0.65%
ScR 361.383	325565.4	106.6	%	2.54				2.38%
Ag 328.068†	165436.5	1.028	mg/L	0.0079	1.028	mg/L	0.0079	0.77%
Al 308.215†	3321.7	1.954	mg/L	0.0553	1.954	mg/L	0.0553	2.83%
As 188.979†	3479.6	2.084	mg/L	0.0123	2.084	mg/L	0.0123	0.59%
B 249.677†	6990.4	0.9638	mg/L	0.02790	0.9638	mg/L	0.02790	2.90%
Ba 233.527†	4060.3	0.9683	mg/L	0.02985	0.9683	mg/L	0.02985	3.08%
Be 313.042†	604667.3	0.9791	mg/L	0.03035	0.9791	mg/L	0.03035	3.10%
Ca 317.933†	26544.0	1.996	mg/L	0.0617	1.996	mg/L	0.0617	3.09%
Cd 228.802†	30702.8	1.039	mg/L	0.0016	1.039	mg/L	0.0016	0.16%
Co 228.616†	34033.1	1.012	mg/L	0.0029	1.012	mg/L	0.0029	0.28%
Cr 267.716†	5895.2	0.9914	mg/L	0.03121	0.9914	mg/L	0.03121	3.15%
Cu 324.752†	243945.7	0.9949	mg/L	0.00513	0.9949	mg/L	0.00513	0.52%
Fe 273.955†	2684.2	2.037	mg/L	0.0547	2.037	mg/L	0.0547	2.69%
K 766.490†	36940.1	19.36	mg/L	0.603	19.36	mg/L	0.603	3.11%
Mg 279.077†	2644.1	1.950	mg/L	0.0642	1.950	mg/L	0.0642	3.29%
Mn 257.610†	36153.3	1.012	mg/L	0.0280	1.012	mg/L	0.0280	2.76%
Mo 202.031†	19119.0	0.9938	mg/L	0.00409	0.9938	mg/L	0.00409	0.41%
Na 589.592†	575920.9	49.34	mg/L	1.553	49.34	mg/L	1.553	3.15%
Na 330.237†	1404.0	50.13	mg/L	1.243	50.13	mg/L	1.243	2.48%
Ni 231.604†	3653.7	0.9776	mg/L	0.03386	0.9776	mg/L	0.03386	3.46%
Pb 220.353†	14943.5	2.003	mg/L	0.0026	2.003	mg/L	0.0026	0.13%
Sb 206.836†	6629.9	2.112	mg/L	0.0142	2.112	mg/L	0.0142	0.67%
Se 196.026†	2756.7	2.040	mg/L	0.0176	2.040	mg/L	0.0176	0.86%
Si 288.158†	4103.4	1.968	mg/L	0.0587	1.968	mg/L	0.0587	2.98%
Sn 189.927†	3787.1	1.018	mg/L	0.0059	1.018	mg/L	0.0059	0.57%
Sr 421.552†	835251.4	0.9764	mg/L	0.02986	0.9764	mg/L	0.02986	3.06%
Ti 334.903†	20732.6	0.9973	mg/L	0.03017	0.9973	mg/L	0.03017	3.03%
Tl 190.801†	4589.7	1.999	mg/L	0.0153	1.999	mg/L	0.0153	0.77%
V 292.402†	122963.5	1.027	mg/L	0.0050	1.027	mg/L	0.0050	0.48%
Zn 206.200†	3663.1	1.024	mg/L	0.0317	1.024	mg/L	0.0317	3.10%

Sequence No.: 26
Sample ID: CB S
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 12:58:57 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2482983.1	104.1	%	0.82				0.78%
ScR 361.383	323030.3	105.8	%	0.12				0.12%
Ag 328.068†	21.4	0.00013	mg/L	0.000159	0.00013	mg/L	0.000159	119.36%
Al 308.215†	3.5	0.00207	mg/L	0.007588	0.00207	mg/L	0.007588	366.54%
As 188.979†	1.8	0.00107	mg/L	0.001346	0.00107	mg/L	0.001346	126.05%
B 249.677†	8.0	0.00110	mg/L	0.000863	0.00110	mg/L	0.000863	78.12%
Ba 233.527†	-1.2	-0.00029	mg/L	0.000300	-0.00029	mg/L	0.000300	103.15%
Be 313.042†	43.9	0.00007	mg/L	0.000036	0.00007	mg/L	0.000036	50.77%
Ca 317.933†	1.3	0.00010	mg/L	0.000287	0.00010	mg/L	0.000287	284.32%
Cd 228.802†	-2.9	-0.00010	mg/L	0.000223	-0.00010	mg/L	0.000223	213.05%
Co 228.616†	10.9	0.00032	mg/L	0.000214	0.00032	mg/L	0.000214	65.91%
Cr 267.716†	0.5	0.00008	mg/L	0.000777	0.00008	mg/L	0.000777	994.66%
Cu 324.752†	-133.0	-0.00054	mg/L	0.000051	-0.00054	mg/L	0.000051	9.35%
Fe 273.955†	10.5	0.00800	mg/L	0.004652	0.00800	mg/L	0.004652	58.15%
K 766.490†	-49.1	-0.02576	mg/L	0.007008	-0.02576	mg/L	0.007008	27.20%
Mg 279.077†	-3.0	-0.00217	mg/L	0.003036	-0.00217	mg/L	0.003036	139.68%
Mn 257.610†	4.3	0.00012	mg/L	0.000101	0.00012	mg/L	0.000101	84.01%
Mo 202.031†	14.0	0.00073	mg/L	0.000159	0.00073	mg/L	0.000159	21.94%
Na 589.592†	143.8	0.01232	mg/L	0.003954	0.01232	mg/L	0.003954	32.08%
Na 330.237†	-3.1	-0.1101	mg/L	0.47013	-0.1101	mg/L	0.47013	427.00%
Ni 231.604†	8.3	0.00222	mg/L	0.001071	0.00222	mg/L	0.001071	48.15%
Pb 220.353†	1.9	0.00025	mg/L	0.000470	0.00025	mg/L	0.000470	188.16%
Sb 206.836†	9.0	0.00286	mg/L	0.000625	0.00286	mg/L	0.000625	21.85%
Se 196.026†	-1.5	-0.00111	mg/L	0.000793	-0.00111	mg/L	0.000793	71.22%
Si 288.158†	3.3	0.00158	mg/L	0.003393	0.00158	mg/L	0.003393	214.80%
Sn 189.927†	-1.2	-0.00032	mg/L	0.000737	-0.00032	mg/L	0.000737	231.07%
Sr 421.552†	77.8	0.00009	mg/L	0.000062	0.00009	mg/L	0.000062	68.04%
Ti 334.903†	-13.9	-0.00067	mg/L	0.000515	-0.00067	mg/L	0.000515	76.85%
Tl 190.801†	-4.6	-0.00203	mg/L	0.001580	-0.00203	mg/L	0.001580	77.72%
V 292.402†	25.6	0.00021	mg/L	0.000057	0.00021	mg/L	0.000057	26.77%
Zn 206.200†	0.7	0.00019	mg/L	0.000602	0.00019	mg/L	0.000602	314.93%

Sequence No.: 27
Sample ID: VS62 MB1 TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 324
Date Collected: 11/19/2012 1:03:12 PM
Data Type: Original

Nebulizer Parameters: VS62 MB1 TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS62 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2526305.9	105.9	%	0.09				0.08%
ScR 361.383	329352.3	107.9	%	1.22				1.13%
Ag 328.068†	-5.2	-0.00003	mg/L	0.000119	-0.00003	mg/L	0.000119	371.69%
Al 308.215†	16.5	0.00985	mg/L	0.005647	0.00985	mg/L	0.005647	57.35%
As 188.979†	0.1	0.00003	mg/L	0.000759	0.00003	mg/L	0.000759	>999.9%
B 249.677†	6.4	0.00089	mg/L	0.000119	0.00089	mg/L	0.000119	13.38%
Ba 233.527†	-1.6	-0.00039	mg/L	0.000121	-0.00039	mg/L	0.000121	30.77%
Be 313.042†	22.0	0.00004	mg/L	0.000025	0.00004	mg/L	0.000025	71.41%
Ca 317.933†	97.7	0.00734	mg/L	0.000107	0.00734	mg/L	0.000107	1.46%
Cd 228.802†	-8.5	-0.00029	mg/L	0.000038	-0.00029	mg/L	0.000038	13.03%
Co 228.616†	3.5	0.00010	mg/L	0.000018	0.00010	mg/L	0.000018	17.27%
Cr 267.716†	2.9	0.00049	mg/L	0.001002	0.00049	mg/L	0.001002	202.52%
Cu 324.752†	-83.3	-0.00034	mg/L	0.000050	-0.00034	mg/L	0.000050	14.69%
Fe 273.955†	24.2	0.01846	mg/L	0.001084	0.01846	mg/L	0.001084	5.87%
K 766.490†	-69.2	-0.03628	mg/L	0.008509	-0.03628	mg/L	0.008509	23.45%
Mg 279.077†	1.9	0.00141	mg/L	0.003877	0.00141	mg/L	0.003877	274.27%
Mn 257.610†	9.4	0.00026	mg/L	0.000078	0.00026	mg/L	0.000078	29.79%
Mo 202.031†	3.1	0.00016	mg/L	0.000159	0.00016	mg/L	0.000159	97.35%
Na 589.592†	147.2	0.01261	mg/L	0.002963	0.01261	mg/L	0.002963	23.50%
Na 330.237†	4.8	0.1717	mg/L	0.24291	0.1717	mg/L	0.24291	141.45%
Ni 231.604†	8.0	0.00215	mg/L	0.000395	0.00215	mg/L	0.000395	18.37%
Pb 220.353†	-3.4	-0.00045	mg/L	0.000288	-0.00045	mg/L	0.000288	64.35%
Sb 206.836†	1.9	0.00059	mg/L	0.001458	0.00059	mg/L	0.001458	245.22%
Se 196.026†	0.1	0.00009	mg/L	0.001480	0.00009	mg/L	0.001480	>999.9%
Si 288.158†	-3.6	-0.00173	mg/L	0.002038	-0.00173	mg/L	0.002038	117.67%
Sn 189.927†	1.2	0.00033	mg/L	0.000650	0.00033	mg/L	0.000650	195.24%
Sr 421.552†	-6.0	-0.00001	mg/L	0.000018	-0.00001	mg/L	0.000018	251.42%
Ti 334.903†	-25.7	-0.00124	mg/L	0.001243	-0.00124	mg/L	0.001243	100.51%
Tl 190.801†	-2.4	-0.00103	mg/L	0.000838	-0.00103	mg/L	0.000838	81.11%
V 292.402†	-0.8	-0.00000	mg/L	0.000157	-0.00000	mg/L	0.000157	>999.9%
Zn 206.200†	6.5	0.00182	mg/L	0.000410	0.00182	mg/L	0.000410	22.52%

Sequence No.: 28
Sample ID: VS62 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 325
Date Collected: 11/19/2012 1:07:27 PM
Data Type: Original

Nebulizer Parameters: VS62 A TWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS62 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2418612.8	101.4	%	0.18				0.18%
ScR 361.383	325924.5	106.7	%	0.46				0.43%
Ag 328.068†	-47.8	-0.00030	mg/L	0.000163	-0.00030	mg/L	0.000163	54.84%
Al 308.215†	47.7	0.02826	mg/L	0.000905	0.02826	mg/L	0.000905	3.20%
As 188.979†	22.7	0.01155	mg/L	0.002201	0.01155	mg/L	0.002201	19.05%
B 249.677†	1332.2	0.1839	mg/L	0.00075	0.1839	mg/L	0.00075	0.41%
Ba 233.527†	120.5	0.02872	mg/L	0.000303	0.02872	mg/L	0.000303	1.05%
Be 313.042†	53.1	0.00009	mg/L	0.000013	0.00009	mg/L	0.000013	15.58%
Ca 317.933†	424687.6	31.93	mg/L	0.393	31.93	mg/L	0.393	1.23%
Cd 228.802†	9.9	0.00025	mg/L	0.000132	0.00025	mg/L	0.000132	52.42%
Co 228.616†	23.4	0.00069	mg/L	0.000167	0.00069	mg/L	0.000167	24.19%
Cr 267.716†	10.2	0.00118	mg/L	0.000312	0.00118	mg/L	0.000312	26.37%
Cu 324.752†	2018.2	0.00821	mg/L	0.000019	0.00821	mg/L	0.000019	0.23%
Fe 273.955†	218.6	0.1666	mg/L	0.00223	0.1666	mg/L	0.00223	1.34%
K 766.490†	18409.1	9.650	mg/L	0.1123	9.650	mg/L	0.1123	1.16%
Mg 279.077†	3410.3	2.506	mg/L	0.0064	2.506	mg/L	0.0064	0.26%
Mn 257.610†	12242.6	0.3424	mg/L	0.00389	0.3424	mg/L	0.00389	1.14%
Mo 202.031†	316.6	0.01611	mg/L	0.000169	0.01611	mg/L	0.000169	1.05%
Na 589.592†	4917581.0	421.3	mg/L	0.96	421.3	mg/L	0.96	0.23%
Na 330.237†	11823.5	423.1	mg/L	5.44	423.1	mg/L	5.44	1.29%
Ni 231.604†	17.1	0.00458	mg/L	0.000923	0.00458	mg/L	0.000923	20.17%
Pb 220.353†	-9.7	-0.00131	mg/L	0.000999	-0.00131	mg/L	0.000999	76.28%
Sb 206.836†	3.8	0.00108	mg/L	0.000965	0.00108	mg/L	0.000965	89.44%
Se 196.026†	-3.6	-0.00268	mg/L	0.006737	-0.00268	mg/L	0.006737	251.44%
Si 288.158†	5573.8	2.675	mg/L	0.0100	2.675	mg/L	0.0100	0.37%
Sn 189.927†	-38.2	-0.00631	mg/L	0.000186	-0.00631	mg/L	0.000186	2.94%
Sr 421.552†	106677.2	0.1247	mg/L	0.00143	0.1247	mg/L	0.00143	1.15%
Ti 334.903†	42.7	0.00052	mg/L	0.000173	0.00052	mg/L	0.000173	33.38%
Tl 190.801†	7.6	0.00333	mg/L	0.001971	0.00333	mg/L	0.001971	59.12%
V 292.402†	20.4	0.00023	mg/L	0.000124	0.00023	mg/L	0.000124	53.32%
Zn 206.200†	119.2	0.03332	mg/L	0.000078	0.03332	mg/L	0.000078	0.23%

Sequence No.: 29
Sample ID: VS62 B TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 326
Date Collected: 11/19/2012 1:11:44 PM
Data Type: Original

Nebulizer Parameters: VS62 B TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS62 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2427236.5	101.8	%	0.38				0.38%
ScR 361.383	324473.0	106.3	%	0.18				0.17%
Ag 328.068†	-25.8	-0.00016	mg/L	0.000060	-0.00016	mg/L	0.000060	37.58%
Al 308.215†	25.7	0.01510	mg/L	0.002123	0.01510	mg/L	0.002123	14.06%
As 188.979†	19.1	0.00935	mg/L	0.000656	0.00935	mg/L	0.000656	7.01%
B 249.677†	1403.9	0.1938	mg/L	0.00188	0.1938	mg/L	0.00188	0.97%
Ba 233.527†	115.7	0.02759	mg/L	0.000760	0.02759	mg/L	0.000760	2.75%
Be 313.042†	45.7	0.00007	mg/L	0.000013	0.00007	mg/L	0.000013	17.67%
Ca 317.933†	446841.1	33.60	mg/L	0.103	33.60	mg/L	0.103	0.31%
Cd 228.802†	8.1	0.00021	mg/L	0.000058	0.00021	mg/L	0.000058	28.12%
Co 228.616†	24.6	0.00073	mg/L	0.000088	0.00073	mg/L	0.000088	12.14%
Cr 267.716†	11.4	0.00135	mg/L	0.000655	0.00135	mg/L	0.000655	48.54%
Cu 324.752†	1083.4	0.00439	mg/L	0.000078	0.00439	mg/L	0.000078	1.78%
Fe 273.955†	101.1	0.07699	mg/L	0.001149	0.07699	mg/L	0.001149	1.49%
K 766.490†	19274.8	10.10	mg/L	0.029	10.10	mg/L	0.029	0.28%
Mg 279.077†	3560.2	2.617	mg/L	0.0144	2.617	mg/L	0.0144	0.55%
Mn 257.610†	13349.6	0.3733	mg/L	0.00103	0.3733	mg/L	0.00103	0.28%
Mo 202.031†	307.1	0.01560	mg/L	0.000217	0.01560	mg/L	0.000217	1.39%
Na 589.592†	5691320.2	487.6	mg/L	2.05	487.6	mg/L	2.05	0.42%
Na 330.237†	13703.1	490.3	mg/L	2.30	490.3	mg/L	2.30	0.47%
Ni 231.604†	20.8	0.00555	mg/L	0.002721	0.00555	mg/L	0.002721	49.02%
Pb 220.353†	-2.0	-0.00027	mg/L	0.000747	-0.00027	mg/L	0.000747	279.96%
Sb 206.836†	4.9	0.00143	mg/L	0.001046	0.00143	mg/L	0.001046	73.08%
Se 196.026†	-7.4	-0.00550	mg/L	0.001269	-0.00550	mg/L	0.001269	23.06%
Si 288.158†	6035.5	2.897	mg/L	0.0195	2.897	mg/L	0.0195	0.67%
Sn 189.927†	-40.7	-0.00678	mg/L	0.000756	-0.00678	mg/L	0.000756	11.16%
Sr 421.552†	111822.7	0.1307	mg/L	0.00032	0.1307	mg/L	0.00032	0.25%
Ti 334.903†	32.5	-0.00005	mg/L	0.000757	-0.00005	mg/L	0.000757	>999.9%
Tl 190.801†	13.4	0.00590	mg/L	0.000982	0.00590	mg/L	0.000982	16.63%
V 292.402†	-3.1	0.00004	mg/L	0.000185	0.00004	mg/L	0.000185	415.27%
Zn 206.200†	96.3	0.02693	mg/L	0.000954	0.02693	mg/L	0.000954	3.54%

Sequence No.: 30
Sample ID: VS62 C TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 327
Date Collected: 11/19/2012 1:16:06 PM
Data Type: Original

Nebulizer Parameters: VS62 C TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS62 C TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2425883.5	101.7	%	0.58				0.57%
ScR 361.383	326303.5	106.9	%	1.58				1.48%
Ag 328.068†	-17.9	-0.00011	mg/L	0.000393	-0.00011	mg/L	0.000393	353.61%
Al 308.215†	45.3	0.02680	mg/L	0.005177	0.02680	mg/L	0.005177	19.32%
As 188.979†	19.5	0.00967	mg/L	0.001407	0.00967	mg/L	0.001407	14.55%
B 249.677†	1376.0	0.1899	mg/L	0.00336	0.1899	mg/L	0.00336	1.77%
Ba 233.527†	112.0	0.02669	mg/L	0.000722	0.02669	mg/L	0.000722	2.71%
Be 313.042†	31.9	0.00005	mg/L	0.000043	0.00005	mg/L	0.000043	83.17%
Ca 317.933†	436415.1	32.81	mg/L	0.563	32.81	mg/L	0.563	1.71%
Cd 228.802†	8.7	0.00022	mg/L	0.000113	0.00022	mg/L	0.000113	50.45%
Co 228.616†	20.6	0.00060	mg/L	0.000040	0.00060	mg/L	0.000040	6.63%
Cr 267.716†	12.8	0.00161	mg/L	0.000253	0.00161	mg/L	0.000253	15.70%
Cu 324.752†	752.4	0.00305	mg/L	0.000134	0.00305	mg/L	0.000134	4.38%
Fe 273.955†	360.1	0.2743	mg/L	0.00611	0.2743	mg/L	0.00611	2.23%
K 766.490†	19445.2	10.19	mg/L	0.127	10.19	mg/L	0.127	1.24%
Mg 279.077†	3392.9	2.494	mg/L	0.0505	2.494	mg/L	0.0505	2.02%
Mn 257.610†	12301.0	0.3440	mg/L	0.00591	0.3440	mg/L	0.00591	1.72%
Mo 202.031†	356.4	0.01817	mg/L	0.000129	0.01817	mg/L	0.000129	0.71%
Na 589.592†	4340934.7	371.9	mg/L	7.42	371.9	mg/L	7.42	2.00%
Na 330.237†	10381.6	371.5	mg/L	5.77	371.5	mg/L	5.77	1.55%
Ni 231.604†	19.6	0.00524	mg/L	0.000818	0.00524	mg/L	0.000818	15.60%
Pb 220.353†	-3.4	-0.00047	mg/L	0.001008	-0.00047	mg/L	0.001008	216.02%
Sb 206.836†	0.2	-0.00008	mg/L	0.001629	-0.00008	mg/L	0.001629	>999.9%
Se 196.026†	-7.5	-0.00558	mg/L	0.001650	-0.00558	mg/L	0.001650	29.57%
Si 288.158†	5645.9	2.710	mg/L	0.0476	2.710	mg/L	0.0476	1.76%
Sn 189.927†	-37.8	-0.00608	mg/L	0.000772	-0.00608	mg/L	0.000772	12.69%
Sr 421.552†	109498.9	0.1280	mg/L	0.00198	0.1280	mg/L	0.00198	1.55%
Ti 334.903†	57.7	0.00120	mg/L	0.000306	0.00120	mg/L	0.000306	25.60%
Tl 190.801†	7.9	0.00348	mg/L	0.002077	0.00348	mg/L	0.002077	59.69%
V 292.402†	6.4	0.00011	mg/L	0.000039	0.00011	mg/L	0.000039	34.36%
Zn 206.200†	107.1	0.02995	mg/L	0.000925	0.02995	mg/L	0.000925	3.09%

Sequence No.: 31
Sample ID: VS62 MB1SPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 328
Date Collected: 11/19/2012 1:20:23 PM
Data Type: Original

Nebulizer Parameters: VS62 MB1SPK TWC

Analyte	Back Pressure	Flow
All	224.0 kPa	0.75 L/min

Mean Data: VS62 MB1SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2524542.8	105.9	%	0.48				0.45%
ScR 361.383	330924.1	108.4	%	2.44				2.25%
Ag 328.068†	81263.1	0.5047	mg/L	0.00248	0.5047	mg/L	0.00248	0.49%
Al 308.215†	3150.8	1.879	mg/L	0.0442	1.879	mg/L	0.0442	2.35%
As 188.979†	3305.4	1.956	mg/L	0.0040	1.956	mg/L	0.0040	0.20%
B 249.677†	11.5	0.00058	mg/L	0.000318	0.00058	mg/L	0.000318	54.96%
Ba 233.527†	8043.4	1.919	mg/L	0.0460	1.919	mg/L	0.0460	2.40%
Be 313.042†	293393.8	0.4751	mg/L	0.01102	0.4751	mg/L	0.01102	2.32%
Ca 317.933†	122044.2	9.176	mg/L	0.2215	9.176	mg/L	0.2215	2.41%
Cd 228.802†	14928.5	0.4988	mg/L	0.00082	0.4988	mg/L	0.00082	0.17%
Co 228.616†	16517.4	0.4918	mg/L	0.00165	0.4918	mg/L	0.00165	0.34%
Cr 267.716†	2881.2	0.4838	mg/L	0.01066	0.4838	mg/L	0.01066	2.20%
Cu 324.752†	117761.5	0.4805	mg/L	0.00064	0.4805	mg/L	0.00064	0.13%
Fe 273.955†	2509.9	1.908	mg/L	0.0397	1.908	mg/L	0.0397	2.08%
K 766.490†	17576.5	9.213	mg/L	0.2417	9.213	mg/L	0.2417	2.62%
Mg 279.077†	13021.8	9.571	mg/L	0.2130	9.571	mg/L	0.2130	2.23%
Mn 257.610†	17047.6	0.4772	mg/L	0.01062	0.4772	mg/L	0.01062	2.23%
Mo 202.031†	21.6	0.00100	mg/L	0.000248	0.00100	mg/L	0.000248	24.78%
Na 589.592†	110691.9	9.484	mg/L	0.2187	9.484	mg/L	0.2187	2.31%
Na 330.237†	277.3	9.766	mg/L	0.1877	9.766	mg/L	0.1877	1.92%
Ni 231.604†	1786.1	0.4769	mg/L	0.01011	0.4769	mg/L	0.01011	2.12%
Pb 220.353†	14161.9	1.898	mg/L	0.0019	1.898	mg/L	0.0019	0.10%
Sb 206.836†	9.3	-0.00209	mg/L	0.001371	-0.00209	mg/L	0.001371	65.48%
Se 196.026†	2614.1	1.935	mg/L	0.0055	1.935	mg/L	0.0055	0.29%
Si 288.158†	-3.4	0.00136	mg/L	0.000956	0.00136	mg/L	0.000956	70.27%
Sn 189.927†	-14.1	-0.00258	mg/L	0.000570	-0.00258	mg/L	0.000570	22.06%
Sr 421.552†	407064.0	0.4759	mg/L	0.01141	0.4759	mg/L	0.01141	2.40%
Ti 334.903†	2.8	-0.00040	mg/L	0.000454	-0.00040	mg/L	0.000454	113.34%
Tl 190.801†	4360.4	1.903	mg/L	0.0029	1.903	mg/L	0.0029	0.15%
V 292.402†	59029.5	0.4931	mg/L	0.00176	0.4931	mg/L	0.00176	0.36%
Zn 206.200†	1710.3	0.4784	mg/L	0.01040	0.4784	mg/L	0.01040	2.17%

Sequence No.: 32
Sample ID: CV 6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 1:24:23 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2483993.9	104.2	%	0.88				0.84%
ScR 361.383	327854.1	107.4	%	3.16				2.95%
Ag 328.068†	157937.4	0.9810	mg/L	0.00312	0.9810	mg/L	0.00312	0.32%
Al 308.215†	3274.4	1.926	mg/L	0.0697	1.926	mg/L	0.0697	3.62%
As 188.979†	3374.1	2.022	mg/L	0.0364	2.022	mg/L	0.0364	1.80%
B 249.677†	6936.1	0.9563	mg/L	0.02954	0.9563	mg/L	0.02954	3.09%
Ba 233.527†	4119.5	0.9824	mg/L	0.03838	0.9824	mg/L	0.03838	3.91%
Be 313.042†	595589.9	0.9644	mg/L	0.03450	0.9644	mg/L	0.03450	3.58%
Ca 317.933†	26239.4	1.973	mg/L	0.0661	1.973	mg/L	0.0661	3.35%
Cd 228.802†	29649.0	1.003	mg/L	0.0038	1.003	mg/L	0.0038	0.37%
Co 228.616†	33332.9	0.9908	mg/L	0.00210	0.9908	mg/L	0.00210	0.21%
Cr 267.716†	5856.8	0.9850	mg/L	0.03008	0.9850	mg/L	0.03008	3.05%
Cu 324.752†	242269.6	0.9881	mg/L	0.00226	0.9881	mg/L	0.00226	0.23%
Fe 273.955†	2569.8	1.951	mg/L	0.0622	1.951	mg/L	0.0622	3.19%
K 766.490†	36992.3	19.39	mg/L	0.677	19.39	mg/L	0.677	3.49%
Mg 279.077†	2612.9	1.928	mg/L	0.0654	1.928	mg/L	0.0654	3.39%
Mn 257.610†	35287.2	0.9875	mg/L	0.03273	0.9875	mg/L	0.03273	3.31%
Mo 202.031†	19112.7	0.9934	mg/L	0.01900	0.9934	mg/L	0.01900	1.91%
Na 589.592†	581796.0	49.85	mg/L	1.806	49.85	mg/L	1.806	3.62%
Na 330.237†	1395.9	49.84	mg/L	1.328	49.84	mg/L	1.328	2.66%
Ni 231.604†	3648.0	0.9760	mg/L	0.02994	0.9760	mg/L	0.02994	3.07%
Pb 220.353†	14934.6	2.002	mg/L	0.0376	2.002	mg/L	0.0376	1.88%
Sb 206.836†	6447.1	2.053	mg/L	0.0392	2.053	mg/L	0.0392	1.91%
Se 196.026†	2679.6	1.983	mg/L	0.0383	1.983	mg/L	0.0383	1.93%
Si 288.158†	4064.1	1.950	mg/L	0.0607	1.950	mg/L	0.0607	3.12%
Sn 189.927†	3651.1	0.9817	mg/L	0.01725	0.9817	mg/L	0.01725	1.76%
Sr 421.552†	836201.4	0.9775	mg/L	0.03443	0.9775	mg/L	0.03443	3.52%
Ti 334.903†	20523.3	0.9872	mg/L	0.03385	0.9872	mg/L	0.03385	3.43%
Tl 190.801†	4543.1	1.979	mg/L	0.0393	1.979	mg/L	0.0393	1.98%
V 292.402†	118022.7	0.9860	mg/L	0.00292	0.9860	mg/L	0.00292	0.30%
Zn 206.200†	3616.1	1.011	mg/L	0.0347	1.011	mg/L	0.0347	3.43%

Sequence No.: 33
Sample ID: CB 6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 1:28:30 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2481029.3	104.0	%	1.39				1.33%
ScR 361.383	328083.1	107.4	%	0.44				0.41%
Ag 328.068†	9.9	0.00006	mg/L	0.000127	0.00006	mg/L	0.000127	206.75%
Al 308.215†	12.8	0.00766	mg/L	0.001647	0.00766	mg/L	0.001647	21.49%
As 188.979†	-0.8	-0.00049	mg/L	0.002817	-0.00049	mg/L	0.002817	572.42%
B 249.677†	8.2	0.00113	mg/L	0.000519	0.00113	mg/L	0.000519	45.89%
Ba 233.527†	-2.1	-0.00049	mg/L	0.000932	-0.00049	mg/L	0.000932	189.53%
Be 313.042†	90.4	0.00015	mg/L	0.000020	0.00015	mg/L	0.000020	13.61%
Ca 317.933†	86.5	0.00650	mg/L	0.001208	0.00650	mg/L	0.001208	18.59%
Cd 228.802†	-4.6	-0.00015	mg/L	0.000149	-0.00015	mg/L	0.000149	96.20%
Co 228.616†	5.2	0.00016	mg/L	0.000018	0.00016	mg/L	0.000018	11.58%
Cr 267.716†	2.4	0.00041	mg/L	0.000516	0.00041	mg/L	0.000516	126.06%
Cu 324.752†	-26.8	-0.00011	mg/L	0.000089	-0.00011	mg/L	0.000089	81.55%
Fe 273.955†	10.2	0.00773	mg/L	0.002099	0.00773	mg/L	0.002099	27.15%
K 766.490†	-41.9	-0.02198	mg/L	0.011606	-0.02198	mg/L	0.011606	52.81%
Mg 279.077†	-4.8	-0.00350	mg/L	0.001608	-0.00350	mg/L	0.001608	45.92%
Mn 257.610†	6.5	0.00018	mg/L	0.000203	0.00018	mg/L	0.000203	111.27%
Mo 202.031†	12.4	0.00064	mg/L	0.000203	0.00064	mg/L	0.000203	31.46%
Na 589.592†	1041.0	0.08919	mg/L	0.005551	0.08919	mg/L	0.005551	6.22%
Na 330.237†	3.2	0.1151	mg/L	0.21851	0.1151	mg/L	0.21851	189.81%
Ni 231.604†	2.8	0.00074	mg/L	0.000555	0.00074	mg/L	0.000555	75.29%
Pb 220.353†	2.6	0.00035	mg/L	0.000588	0.00035	mg/L	0.000588	170.30%
Sb 206.836†	0.9	0.00028	mg/L	0.001479	0.00028	mg/L	0.001479	524.94%
Se 196.026†	-1.0	-0.00071	mg/L	0.002340	-0.00071	mg/L	0.002340	328.57%
Si 288.158†	3.6	0.00172	mg/L	0.000852	0.00172	mg/L	0.000852	49.52%
Sn 189.927†	1.5	0.00040	mg/L	0.000387	0.00040	mg/L	0.000387	95.88%
Sr 421.552†	151.0	0.00018	mg/L	0.000036	0.00018	mg/L	0.000036	20.57%
Ti 334.903†	-1.8	-0.00009	mg/L	0.000817	-0.00009	mg/L	0.000817	951.58%
Tl 190.801†	4.1	0.00180	mg/L	0.001146	0.00180	mg/L	0.001146	63.79%
V 292.402†	28.2	0.00024	mg/L	0.000142	0.00024	mg/L	0.000142	60.21%
Zn 206.200†	-0.3	-0.00008	mg/L	0.000788	-0.00008	mg/L	0.000788	>999.9%

Analysis Begun

Start Time: 11/19/2012 1:34:03 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/19/2012 7:16:46 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1119.sif
Batch ID:
Results Data Set: I2121119
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VS95 MB TWC
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 329
Date Collected: 11/19/2012 1:34:09 PM
Data Type: Original

Nebulizer Parameters: VS95 MB TWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS95 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2525930.0	105.9	%	0.53				0.50%
ScR 361.383	329452.1	107.9	%	0.59				0.55%
Ag 328.068†	2.9	0.00002	mg/L	0.000181	0.00002	mg/L	0.000181	998.53%
Al 308.215†	6.8	0.00405	mg/L	0.003148	0.00405	mg/L	0.003148	77.65%
As 188.979†	2.0	0.00118	mg/L	0.002207	0.00118	mg/L	0.002207	186.69%
B 249.677†	1.7	0.00023	mg/L	0.000597	0.00023	mg/L	0.000597	260.95%
Ba 233.527†	-1.6	-0.00038	mg/L	0.000142	-0.00038	mg/L	0.000142	37.13%
Be 313.042†	22.4	0.00004	mg/L	0.000006	0.00004	mg/L	0.000006	15.61%
Ca 317.933†	108.9	0.00819	mg/L	0.000667	0.00819	mg/L	0.000667	8.15%
Cd 228.802†	-6.4	-0.00023	mg/L	0.000052	-0.00023	mg/L	0.000052	22.87%
Co 228.616†	7.4	0.00022	mg/L	0.000089	0.00022	mg/L	0.000089	40.58%
Cr 267.716†	8.5	0.00143	mg/L	0.001116	0.00143	mg/L	0.001116	78.10%
Cu 324.752†	-2.6	-0.00001	mg/L	0.000152	-0.00001	mg/L	0.000152	>999.9%
Fe 273.955†	7.7	0.00587	mg/L	0.001279	0.00587	mg/L	0.001279	21.79%
K 766.490†	-24.1	-0.01261	mg/L	0.013140	-0.01261	mg/L	0.013140	104.17%
Mg 279.077†	-5.4	-0.00400	mg/L	0.003430	-0.00400	mg/L	0.003430	85.75%
Mn 257.610†	3.1	0.00009	mg/L	0.000084	0.00009	mg/L	0.000084	97.42%
Mo 202.031†	1.6	0.00008	mg/L	0.000216	0.00008	mg/L	0.000216	260.28%
Na 589.592†	674.0	0.05775	mg/L	0.001093	0.05775	mg/L	0.001093	1.89%
Na 330.237†	1.8	0.06487	mg/L	0.241406	0.06487	mg/L	0.241406	372.14%
Ni 231.604†	3.9	0.00105	mg/L	0.001780	0.00105	mg/L	0.001780	169.47%
Pb 220.353†	-1.0	-0.00013	mg/L	0.000303	-0.00013	mg/L	0.000303	239.91%
Sb 206.836†	-7.7	-0.00247	mg/L	0.000999	-0.00247	mg/L	0.000999	40.36%
Se 196.026†	4.5	0.00332	mg/L	0.004434	0.00332	mg/L	0.004434	133.44%
Si 288.158†	3.7	0.00178	mg/L	0.002890	0.00178	mg/L	0.002890	162.30%
Sn 189.927†	1.5	0.00039	mg/L	0.000748	0.00039	mg/L	0.000748	191.29%
Sr 421.552†	1.5	0.00000	mg/L	0.000009	0.00000	mg/L	0.000009	525.06%
Ti 334.903†	-2.7	-0.00013	mg/L	0.000814	-0.00013	mg/L	0.000814	627.31%
Tl 190.801†	-3.1	-0.00135	mg/L	0.001886	-0.00135	mg/L	0.001886	140.16%
V 292.402†	7.2	0.00007	mg/L	0.000095	0.00007	mg/L	0.000095	144.73%
Zn 206.200†	5.1	0.00142	mg/L	0.000149	0.00142	mg/L	0.000149	10.50%

Sequence No.: 2
Sample ID: VS91 MB1 LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 330
Date Collected: 11/19/2012 1:38:28 PM
Data Type: Original

Nebulizer Parameters: VS91 MB1 LEN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS91 MB1 LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2480985.6	104.0	%	0.39				0.37%
ScR 361.383	325779.1	106.7	%	0.64				0.60%
Ag 328.068†	-6.4	-0.00004	mg/L	0.000185	-0.00020	mg/L	0.000926	466.42%
Al 308.215†	-4.4	-0.00262	mg/L	0.006506	-0.01311	mg/L	0.032529	248.03%
As 188.979†	0.1	0.00003	mg/L	0.001181	0.00014	mg/L	0.005905	>999.9%
B 249.677†	53.7	0.00741	mg/L	0.000682	0.03706	mg/L	0.003409	9.20%
Ba 233.527†	7.8	0.00186	mg/L	0.000684	0.00929	mg/L	0.003422	36.83%
Be 313.042†	19.7	0.00003	mg/L	0.000024	0.00016	mg/L	0.000118	73.96%
Ca 317.933†	1913.1	0.1438	mg/L	0.00205	0.7192	mg/L	0.01025	1.43%
Cd 228.802†	0.4	0.00002	mg/L	0.000126	0.00009	mg/L	0.000629	737.96%
Co 228.616†	9.6	0.00029	mg/L	0.000122	0.00144	mg/L	0.000612	42.61%
Cr 267.716†	4.7	0.00079	mg/L	0.000679	0.00396	mg/L	0.003396	85.74%
Cu 324.752†	192.7	0.00079	mg/L	0.000137	0.00393	mg/L	0.000683	17.35%
Fe 273.955†	7.9	0.00598	mg/L	0.000751	0.02991	mg/L	0.003755	12.56%
K 766.490†	4.6	0.00240	mg/L	0.016796	0.01201	mg/L	0.083981	699.20%
Mg 279.077†	10.8	0.00796	mg/L	0.004548	0.03981	mg/L	0.022740	57.12%
Mn 257.610†	2.0	0.00006	mg/L	0.000151	0.00028	mg/L	0.000753	272.34%
Mo 202.031†	1.0	0.00005	mg/L	0.000078	0.00025	mg/L	0.000389	156.89%
Na 589.592†	3261375.6	279.4	mg/L	3.96	1397	mg/L	19.81	1.42%
Na 330.237†	8025.7	287.2	mg/L	3.15	1436	mg/L	15.77	1.10%
Ni 231.604†	20.5	0.00549	mg/L	0.001092	0.02746	mg/L	0.005458	19.87%
Pb 220.353†	-0.7	-0.00009	mg/L	0.000496	-0.00046	mg/L	0.002480	544.64%
Sb 206.836†	-4.5	-0.00142	mg/L	0.000748	-0.00711	mg/L	0.003739	52.61%
Se 196.026†	1.4	0.00103	mg/L	0.003169	0.00514	mg/L	0.015846	308.35%
Si 288.158†	18.1	0.00866	mg/L	0.001486	0.04330	mg/L	0.007429	17.16%
Sn 189.927†	3.5	0.00095	mg/L	0.000673	0.00474	mg/L	0.003365	70.94%
Sr 421.552†	122.4	0.00014	mg/L	0.000015	0.00072	mg/L	0.000077	10.73%
Ti 334.903†	-13.9	-0.00068	mg/L	0.001054	-0.00338	mg/L	0.005272	155.83%
Tl 190.801†	0.3	0.00013	mg/L	0.000738	0.00065	mg/L	0.003688	567.24%
V 292.402†	-0.6	-0.00000	mg/L	0.000032	-0.00001	mg/L	0.000162	>999.9%
Zn 206.200†	8.8	0.00245	mg/L	0.000282	0.01224	mg/L	0.001411	11.52%

Sequence No.: 3
Sample ID: VS91 B LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 331
Date Collected: 11/19/2012 1:43:00 PM
Data Type: Original

Nebulizer Parameters: VS91 B LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 B LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2433526.6	102.0	%	0.83				0.81%
ScR 361.383	318801.2	104.4	%	1.40				1.34%
Ag 328.068†	-354.5	-0.00220	mg/L	0.000104	-0.01101	mg/L	0.000518	4.71%
Al 308.215†	211.4	0.1262	mg/L	0.00269	0.6311	mg/L	0.01345	2.13%
As 188.979†	62.7	0.01574	mg/L	0.001472	0.07868	mg/L	0.007360	9.35%
B 249.677†	-29.1	-0.00400	mg/L	0.001691	-0.02001	mg/L	0.008455	42.26%
Ba 233.527†	857.8	0.2047	mg/L	0.00504	1.023	mg/L	0.0252	2.46%
Be 313.042†	77.7	0.00013	mg/L	0.000033	0.00063	mg/L	0.000163	26.03%
Ca 317.933†	4993068.4	375.4	mg/L	5.62	1877	mg/L	28.11	1.50%
Cd 228.802†	6.9	-0.00001	mg/L	0.000112	-0.00004	mg/L	0.000562	>999.9%
Co 228.616†	17.6	0.00047	mg/L	0.000076	0.00235	mg/L	0.000381	16.23%
Cr 267.716†	326.3	0.05146	mg/L	0.000569	0.2573	mg/L	0.00285	1.11%
Cu 324.752†	4842.6	0.01975	mg/L	0.000284	0.09874	mg/L	0.001422	1.44%
Fe 273.955†	14.3	0.01093	mg/L	0.001345	0.05465	mg/L	0.006723	12.30%
K 766.490†	3985.2	2.089	mg/L	0.0205	10.44	mg/L	0.103	0.98%
Mg 279.077†	88.2	0.06493	mg/L	0.002623	0.3246	mg/L	0.01312	4.04%
Mn 257.610†	53.6	0.00042	mg/L	0.000066	0.00212	mg/L	0.000332	15.69%
Mo 202.031†	268.1	0.00988	mg/L	0.000319	0.04939	mg/L	0.001596	3.23%
Na 589.592†	35509.6	3.042	mg/L	0.0213	15.21	mg/L	0.107	0.70%
Na 330.237†	93.4	3.345	mg/L	0.0359	16.73	mg/L	0.180	1.07%
Ni 231.604†	18.4	0.00491	mg/L	0.001612	0.02455	mg/L	0.008058	32.82%
Pb 220.353†	-25.3	-0.00329	mg/L	0.000719	-0.01645	mg/L	0.003594	21.85%
Sb 206.836†	-0.4	-0.00117	mg/L	0.001757	-0.00585	mg/L	0.008787	150.17%
Se 196.026†	-32.5	-0.02404	mg/L	0.006096	-0.1202	mg/L	0.03048	25.35%
Si 288.158†	1823.4	0.8752	mg/L	0.01467	4.376	mg/L	0.0734	1.68%
Sn 189.927†	-98.3	0.02004	mg/L	0.001308	0.1002	mg/L	0.00654	6.53%
Sr 421.552†	1245990.1	1.457	mg/L	0.0199	7.283	mg/L	0.0994	1.36%
Ti 334.903†	430.2	0.00278	mg/L	0.000122	0.01390	mg/L	0.000610	4.39%
Tl 190.801†	20.7	0.00906	mg/L	0.002638	0.04531	mg/L	0.013190	29.11%
V 292.402†	112.5	0.00117	mg/L	0.000016	0.00584	mg/L	0.000078	1.33%
Zn 206.200†	3.5	0.00098	mg/L	0.000112	0.00491	mg/L	0.000559	11.40%

Sequence No.: 4
Sample ID: VS91 ADUP LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 332
Date Collected: 11/19/2012 1:47:33 PM
Data Type: Original

Nebulizer Parameters: VS91 ADUP LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 ADUP LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2434654.0	102.1	%	0.53				0.52%
ScR 361.383	318675.2	104.4	%	0.72				0.69%
Ag 328.068†	-339.1	-0.00210	mg/L	0.000378	-0.01052	mg/L	0.001891	17.97%
Al 308.215†	-1.5	-0.00121	mg/L	0.001680	-0.00603	mg/L	0.008400	139.24%
As 188.979†	73.2	0.02307	mg/L	0.002525	0.1153	mg/L	0.01263	10.95%
B 249.677†	86.5	0.01194	mg/L	0.001280	0.05972	mg/L	0.006402	10.72%
Ba 233.527†	837.7	0.1999	mg/L	0.00334	0.9994	mg/L	0.01672	1.67%
Be 313.042†	88.5	0.00014	mg/L	0.000018	0.00071	mg/L	0.000091	12.86%
Ca 317.933†	4748158.5	357.0	mg/L	4.45	1785	mg/L	22.27	1.25%
Cd 228.802†	11.5	0.00011	mg/L	0.000039	0.00054	mg/L	0.000196	36.59%
Co 228.616†	13.2	0.00034	mg/L	0.000198	0.00171	mg/L	0.000991	58.09%
Cr 267.716†	76.0	0.00928	mg/L	0.001096	0.04639	mg/L	0.005480	11.81%
Cu 324.752†	3128.4	0.01273	mg/L	0.000198	0.06367	mg/L	0.000991	1.56%
Fe 273.955†	14.1	0.01074	mg/L	0.001194	0.05368	mg/L	0.005969	11.12%
K 766.490†	3766.1	1.974	mg/L	0.0233	9.871	mg/L	0.1166	1.18%
Mg 279.077†	3574.6	2.627	mg/L	0.0560	13.14	mg/L	0.280	2.13%
Mn 257.610†	763.9	0.02035	mg/L	0.000353	0.1017	mg/L	0.00177	1.74%
Mo 202.031†	212.9	0.00721	mg/L	0.000203	0.03605	mg/L	0.001016	2.82%
Na 589.592†	19194.8	1.645	mg/L	0.0205	8.223	mg/L	0.1024	1.25%
Na 330.237†	60.3	2.161	mg/L	0.1231	10.81	mg/L	0.616	5.70%
Ni 231.604†	10.9	0.00294	mg/L	0.000704	0.01468	mg/L	0.003518	23.97%
Pb 220.353†	-26.2	-0.00351	mg/L	0.000588	-0.01756	mg/L	0.002941	16.75%
Sb 206.836†	124.7	0.03934	mg/L	0.000274	0.1967	mg/L	0.00137	0.70%
Se 196.026†	-28.7	-0.02124	mg/L	0.003020	-0.1062	mg/L	0.01510	14.22%
Si 288.158†	17180.1	8.245	mg/L	0.0823	41.22	mg/L	0.411	1.00%
Sn 189.927†	-94.2	0.01888	mg/L	0.000171	0.09440	mg/L	0.000853	0.90%
Sr 421.552†	954168.9	1.115	mg/L	0.0144	5.577	mg/L	0.0721	1.29%
Ti 334.903†	391.9	0.00182	mg/L	0.000118	0.00912	mg/L	0.000590	6.47%
Tl 190.801†	29.4	0.01285	mg/L	0.002602	0.06423	mg/L	0.013009	20.25%
V 292.402†	472.4	0.00398	mg/L	0.000018	0.01991	mg/L	0.000091	0.46%
Zn 206.200†	-0.6	-0.00017	mg/L	0.000451	-0.00083	mg/L	0.002256	270.52%

Sequence No.: 5
Sample ID: VS91 A LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 333
Date Collected: 11/19/2012 1:51:49 PM
Data Type: Original

Nebulizer Parameters: VS91 A LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 A LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2436396.1	102.2	%	1.00				0.98%
ScR 361.383	313613.0	102.7	%	0.88				0.86%
Ag 328.068†	-313.2	-0.00194	mg/L	0.000286	-0.00972	mg/L	0.001432	14.73%
Al 308.215†	1.6	0.00066	mg/L	0.011832	0.00329	mg/L	0.059158	>999.9%
As 188.979†	71.5	0.02274	mg/L	0.002887	0.1137	mg/L	0.01444	12.69%
B 249.677†	82.0	0.01132	mg/L	0.000949	0.05662	mg/L	0.004745	8.38%
Ba 233.527†	813.1	0.1940	mg/L	0.00147	0.9700	mg/L	0.00734	0.76%
Be 313.042†	79.3	0.00013	mg/L	0.000008	0.00064	mg/L	0.000041	6.39%
Ca 317.933†	4590976.3	345.2	mg/L	1.72	1726	mg/L	8.60	0.50%
Cd 228.802†	8.9	0.00003	mg/L	0.000182	0.00014	mg/L	0.000912	670.14%
Co 228.616†	17.2	0.00046	mg/L	0.000048	0.00231	mg/L	0.000240	10.40%
Cr 267.716†	77.7	0.00968	mg/L	0.000890	0.04839	mg/L	0.004451	9.20%
Cu 324.752†	2786.0	0.01134	mg/L	0.000108	0.05669	mg/L	0.000542	0.96%
Fe 273.955†	12.7	0.00970	mg/L	0.001078	0.04850	mg/L	0.005392	11.12%
K 766.490†	3659.7	1.918	mg/L	0.0176	9.592	mg/L	0.0879	0.92%
Mg 279.077†	3466.0	2.548	mg/L	0.0245	12.74	mg/L	0.122	0.96%
Mn 257.610†	740.4	0.01972	mg/L	0.000269	0.09862	mg/L	0.001346	1.36%
Mo 202.031†	206.8	0.00702	mg/L	0.000021	0.03508	mg/L	0.000104	0.30%
Na 589.592†	18660.3	1.599	mg/L	0.0051	7.994	mg/L	0.0254	0.32%
Na 330.237†	57.7	2.067	mg/L	0.1542	10.34	mg/L	0.771	7.46%
Ni 231.604†	12.1	0.00326	mg/L	0.001055	0.01629	mg/L	0.005276	32.39%
Pb 220.353†	-28.4	-0.00379	mg/L	0.000203	-0.01895	mg/L	0.001017	5.37%
Sb 206.836†	126.5	0.03990	mg/L	0.004008	0.1995	mg/L	0.02004	10.04%
Se 196.026†	-27.7	-0.02048	mg/L	0.000748	-0.1024	mg/L	0.00374	3.65%
Si 288.158†	17260.4	8.283	mg/L	0.0505	41.42	mg/L	0.252	0.61%
Sn 189.927†	-95.9	0.01697	mg/L	0.001844	0.08487	mg/L	0.009221	10.87%
Sr 421.552†	925260.3	1.082	mg/L	0.0082	5.408	mg/L	0.0410	0.76%
Ti 334.903†	388.6	0.00223	mg/L	0.000342	0.01113	mg/L	0.001712	15.38%
Tl 190.801†	23.3	0.01018	mg/L	0.001625	0.05091	mg/L	0.008123	15.96%
V 292.402†	417.8	0.00353	mg/L	0.000093	0.01765	mg/L	0.000466	2.64%
Zn 206.200†	2.8	0.00077	mg/L	0.000611	0.00387	mg/L	0.003053	78.92%

Sequence No.: 6
Sample ID: VS91 ASPK LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 334
Date Collected: 11/19/2012 1:56:05 PM
Data Type: Original

Nebulizer Parameters: VS91 ASPK LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 ASPK LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2429936.1	101.9	%	1.50				1.47%
ScR 361.383	314085.3	102.9	%	1.95				1.90%
Ag 328.068†	33731.3	0.2095	mg/L	0.00381	1.048	mg/L	0.0191	1.82%
Al 308.215†	1409.3	0.8403	mg/L	0.01922	4.202	mg/L	0.0961	2.29%
As 188.979†	1485.0	0.8574	mg/L	0.01587	4.287	mg/L	0.0794	1.85%
B 249.677†	97.7	0.01308	mg/L	0.000842	0.06540	mg/L	0.004209	6.44%
Ba 233.527†	4310.1	1.028	mg/L	0.0195	5.141	mg/L	0.0975	1.90%
Be 313.042†	125319.9	0.2029	mg/L	0.00291	1.015	mg/L	0.0145	1.43%
Ca 317.933†	5075702.6	381.6	mg/L	6.72	1908	mg/L	33.58	1.76%
Cd 228.802†	6464.6	0.2158	mg/L	0.00396	1.079	mg/L	0.0198	1.83%
Co 228.616†	6816.5	0.2029	mg/L	0.00342	1.014	mg/L	0.0171	1.69%
Cr 267.716†	1310.2	0.2163	mg/L	0.00399	1.082	mg/L	0.0199	1.84%
Cu 324.752†	55568.0	0.2267	mg/L	0.00410	1.134	mg/L	0.0205	1.81%
Fe 273.955†	1068.8	0.8127	mg/L	0.01908	4.064	mg/L	0.0954	2.35%
K 766.490†	11922.0	6.249	mg/L	0.0714	31.25	mg/L	0.357	1.14%
Mg 279.077†	9399.0	6.908	mg/L	0.1307	34.54	mg/L	0.654	1.89%
Mn 257.610†	8071.0	0.2248	mg/L	0.00454	1.124	mg/L	0.0227	2.02%
Mo 202.031†	225.1	0.00756	mg/L	0.000214	0.03782	mg/L	0.001071	2.83%
Na 589.592†	69075.3	5.918	mg/L	0.0782	29.59	mg/L	0.391	1.32%
Na 330.237†	181.5	6.433	mg/L	0.1348	32.16	mg/L	0.674	2.10%
Ni 231.604†	768.4	0.2052	mg/L	0.00391	1.026	mg/L	0.0195	1.90%
Pb 220.353†	5926.1	0.7942	mg/L	0.01400	3.971	mg/L	0.0700	1.76%
Sb 206.836†	140.7	0.04224	mg/L	0.000971	0.2112	mg/L	0.00485	2.30%
Se 196.026†	1097.2	0.8122	mg/L	0.01089	4.061	mg/L	0.0545	1.34%
Si 288.158†	19101.3	9.168	mg/L	0.1093	45.84	mg/L	0.546	1.19%
Sn 189.927†	-97.2	0.02114	mg/L	0.002317	0.1057	mg/L	0.01158	10.96%
Sr 421.552†	1183059.4	1.383	mg/L	0.0247	6.915	mg/L	0.1234	1.78%
Ti 334.903†	425.8	0.00224	mg/L	0.000493	0.01119	mg/L	0.002466	22.03%
Tl 190.801†	1790.8	0.7815	mg/L	0.01281	3.908	mg/L	0.0640	1.64%
V 292.402†	24435.5	0.2042	mg/L	0.00327	1.021	mg/L	0.0163	1.60%
Zn 206.200†	714.9	0.1999	mg/L	0.00365	0.9997	mg/L	0.01827	1.83%

Sequence No.: 7
Sample ID: VS95 ADUP TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 335
Date Collected: 11/19/2012 2:00:21 PM
Data Type: Original

Nebulizer Parameters: VS95 ADUP TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS95 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2497195.2	104.7	%	0.74				0.71%
ScR 361.383	322917.6	105.7	%	0.58				0.55%
Ag 328.068†	-49.1	-0.00030	mg/L	0.000043	-0.00030	mg/L	0.000043	14.34%
Al 308.215†	1615.3	0.9664	mg/L	0.00856	0.9664	mg/L	0.00856	0.89%
As 188.979†	42.4	0.02231	mg/L	0.001421	0.02231	mg/L	0.001421	6.37%
B 249.677†	2319.0	0.3200	mg/L	0.00070	0.3200	mg/L	0.00070	0.22%
Ba 233.527†	118.7	0.02820	mg/L	0.000472	0.02820	mg/L	0.000472	1.67%
Be 313.042†	31.0	0.00005	mg/L	0.000034	0.00005	mg/L	0.000034	73.12%
Ca 317.933†	868339.4	65.28	mg/L	0.316	65.28	mg/L	0.316	0.48%
Cd 228.802†	10.8	0.00020	mg/L	0.000119	0.00020	mg/L	0.000119	59.01%
Co 228.616†	102.0	0.00296	mg/L	0.000158	0.00296	mg/L	0.000158	5.33%
Cr 267.716†	31.6	0.00324	mg/L	0.000385	0.00324	mg/L	0.000385	11.86%
Cu 324.752†	1444.3	0.00577	mg/L	0.000130	0.00577	mg/L	0.000130	2.26%
Fe 273.955†	995.0	0.7578	mg/L	0.00508	0.7578	mg/L	0.00508	0.67%
K 766.490†	34992.3	18.34	mg/L	0.100	18.34	mg/L	0.100	0.54%
Mg 279.077†	22939.6	16.86	mg/L	0.063	16.86	mg/L	0.063	0.38%
Mn 257.610†	20731.0	0.5797	mg/L	0.00097	0.5797	mg/L	0.00097	0.17%
Mo 202.031†	118.3	0.00545	mg/L	0.000187	0.00545	mg/L	0.000187	3.44%
Na 589.592†	860093.4	73.69	mg/L	0.596	73.69	mg/L	0.596	0.81%
Na 330.237†	2059.2	73.69	mg/L	0.918	73.69	mg/L	0.918	1.25%
Ni 231.604†	23.7	0.00635	mg/L	0.000810	0.00635	mg/L	0.000810	12.75%
Pb 220.353†	6.9	0.00112	mg/L	0.000262	0.00112	mg/L	0.000262	23.30%
Sb 206.836†	9.6	0.00291	mg/L	0.001396	0.00291	mg/L	0.001396	47.93%
Se 196.026†	-14.3	-0.01059	mg/L	0.001645	-0.01059	mg/L	0.001645	15.54%
Si 288.158†	51865.1	24.89	mg/L	0.127	24.89	mg/L	0.127	0.51%
Sn 189.927†	-60.3	-0.00810	mg/L	0.000372	-0.00810	mg/L	0.000372	4.59%
Sr 421.552†	289755.4	0.3387	mg/L	0.00245	0.3387	mg/L	0.00245	0.72%
Ti 334.903†	749.8	0.03299	mg/L	0.000715	0.03299	mg/L	0.000715	2.17%
Tl 190.801†	13.2	0.00580	mg/L	0.001472	0.00580	mg/L	0.001472	25.36%
V 292.402†	1820.8	0.01521	mg/L	0.000037	0.01521	mg/L	0.000037	0.24%
Zn 206.200†	45.7	0.01278	mg/L	0.000517	0.01278	mg/L	0.000517	4.05%

Sequence No.: 8
Sample ID: VS95 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 336
Date Collected: 11/19/2012 2:04:36 PM
Data Type: Original

Nebulizer Parameters: VS95 A TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS95 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2506723.4	105.1	%	0.35				0.33%
ScR 361.383	325335.3	106.5	%	0.67				0.63%
Ag 328.068†	-48.8	-0.00030	mg/L	0.000302	-0.00030	mg/L	0.000302	100.90%
Al 308.215†	1533.8	0.9177	mg/L	0.01045	0.9177	mg/L	0.01045	1.14%
As 188.979†	42.4	0.02231	mg/L	0.001911	0.02231	mg/L	0.001911	8.57%
B 249.677†	2326.7	0.3211	mg/L	0.00212	0.3211	mg/L	0.00212	0.66%
Ba 233.527†	117.4	0.02788	mg/L	0.000389	0.02788	mg/L	0.000389	1.39%
Be 313.042†	7.3	0.00001	mg/L	0.000040	0.00001	mg/L	0.000040	475.71%
Ca 317.933†	864558.0	65.00	mg/L	0.456	65.00	mg/L	0.456	0.70%
Cd 228.802†	4.8	-0.00000	mg/L	0.000229	-0.00000	mg/L	0.000229	>999.9%
Co 228.616†	98.9	0.00287	mg/L	0.000032	0.00287	mg/L	0.000032	1.12%
Cr 267.716†	33.7	0.00358	mg/L	0.001024	0.00358	mg/L	0.001024	28.60%
Cu 324.752†	1419.3	0.00567	mg/L	0.000121	0.00567	mg/L	0.000121	2.14%
Fe 273.955†	990.8	0.7546	mg/L	0.00385	0.7546	mg/L	0.00385	0.51%
K 766.490†	34890.7	18.29	mg/L	0.210	18.29	mg/L	0.210	1.15%
Mg 279.077†	23022.2	16.92	mg/L	0.106	16.92	mg/L	0.106	0.63%
Mn 257.610†	20839.9	0.5828	mg/L	0.00313	0.5828	mg/L	0.00313	0.54%
Mo 202.031†	115.4	0.00530	mg/L	0.000221	0.00530	mg/L	0.000221	4.17%
Na 589.592†	851706.8	72.97	mg/L	0.845	72.97	mg/L	0.845	1.16%
Na 330.237†	2059.1	73.68	mg/L	0.814	73.68	mg/L	0.814	1.10%
Ni 231.604†	23.5	0.00629	mg/L	0.000389	0.00629	mg/L	0.000389	6.18%
Pb 220.353†	8.1	0.00128	mg/L	0.000336	0.00128	mg/L	0.000336	26.33%
Sb 206.836†	4.5	0.00129	mg/L	0.000698	0.00129	mg/L	0.000698	54.07%
Se 196.026†	-16.0	-0.01189	mg/L	0.002911	-0.01189	mg/L	0.002911	24.49%
Si 288.158†	51735.4	24.83	mg/L	0.211	24.83	mg/L	0.211	0.85%
Sn 189.927†	-59.3	-0.00787	mg/L	0.000208	-0.00787	mg/L	0.000208	2.64%
Sr 421.552†	287103.0	0.3356	mg/L	0.00390	0.3356	mg/L	0.00390	1.16%
Ti 334.903†	718.7	0.03150	mg/L	0.000385	0.03150	mg/L	0.000385	1.22%
Tl 190.801†	9.4	0.00411	mg/L	0.000953	0.00411	mg/L	0.000953	23.18%
V 292.402†	1819.9	0.01521	mg/L	0.000356	0.01521	mg/L	0.000356	2.34%
Zn 206.200†	43.4	0.01215	mg/L	0.000236	0.01215	mg/L	0.000236	1.95%

Sequence No.: 9
Sample ID: VS95 ASPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 337
Date Collected: 11/19/2012 2:08:51 PM
Data Type: Original

Nebulizer Parameters: VS95 ASPK TWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS95 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2503475.7	105.0	%	0.12				0.12%
ScR 361.383	323834.6	106.0	%	1.09				1.03%
Ag 328.068†	81975.5	0.5092	mg/L	0.00288	0.5092	mg/L	0.00288	0.57%
Al 308.215†	5316.6	3.175	mg/L	0.0426	3.175	mg/L	0.0426	1.34%
As 188.979†	3472.3	2.052	mg/L	0.0078	2.052	mg/L	0.0078	0.38%
B 249.677†	2294.6	0.3157	mg/L	0.00473	0.3157	mg/L	0.00473	1.50%
Ba 233.527†	8483.9	2.024	mg/L	0.0288	2.024	mg/L	0.0288	1.42%
Be 313.042†	306231.1	0.4959	mg/L	0.00374	0.4959	mg/L	0.00374	0.75%
Ca 317.933†	978498.3	73.57	mg/L	0.420	73.57	mg/L	0.420	0.57%
Cd 228.802†	15188.9	0.5070	mg/L	0.00388	0.5070	mg/L	0.00388	0.77%
Co 228.616†	16470.0	0.4902	mg/L	0.00256	0.4902	mg/L	0.00256	0.52%
Cr 267.716†	3022.4	0.5055	mg/L	0.00663	0.5055	mg/L	0.00663	1.31%
Cu 324.752†	127691.1	0.5210	mg/L	0.00311	0.5210	mg/L	0.00311	0.60%
Fe 273.955†	3777.5	2.874	mg/L	0.0392	2.874	mg/L	0.0392	1.37%
K 766.490†	52756.6	27.65	mg/L	0.109	27.65	mg/L	0.109	0.40%
Mg 279.077†	35145.0	25.83	mg/L	0.178	25.83	mg/L	0.178	0.69%
Mn 257.610†	37218.3	1.041	mg/L	0.0068	1.041	mg/L	0.0068	0.66%
Mo 202.031†	118.5	0.00534	mg/L	0.000229	0.00534	mg/L	0.000229	4.30%
Na 589.592†	954909.1	81.81	mg/L	0.552	81.81	mg/L	0.552	0.67%
Na 330.237†	2343.2	83.69	mg/L	1.066	83.69	mg/L	1.066	1.27%
Ni 231.604†	1856.9	0.4959	mg/L	0.00699	0.4959	mg/L	0.00699	1.41%
Pb 220.353†	14113.0	1.892	mg/L	0.0091	1.892	mg/L	0.0091	0.48%
Sb 206.836†	18.5	0.00045	mg/L	0.000265	0.00045	mg/L	0.000265	59.51%
Se 196.026†	2703.1	2.001	mg/L	0.0048	2.001	mg/L	0.0048	0.24%
Si 288.158†	48843.2	23.44	mg/L	0.227	23.44	mg/L	0.227	0.97%
Sn 189.927†	-64.8	-0.00824	mg/L	0.000832	-0.00824	mg/L	0.000832	10.10%
Sr 421.552†	713426.5	0.8340	mg/L	0.00535	0.8340	mg/L	0.00535	0.64%
Ti 334.903†	898.9	0.03967	mg/L	0.001287	0.03967	mg/L	0.001287	3.24%
Tl 190.801†	4404.9	1.922	mg/L	0.0086	1.922	mg/L	0.0086	0.45%
V 292.402†	60796.9	0.5079	mg/L	0.00218	0.5079	mg/L	0.00218	0.43%
Zn 206.200†	1808.5	0.5058	mg/L	0.00717	0.5058	mg/L	0.00717	1.42%

Sequence No.: 10
Sample ID: VS95 MBSPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 338
Date Collected: 11/19/2012 2:12:53 PM
Data Type: Original

Nebulizer Parameters: VS95 MBSPK TWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS95 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2519700.0	105.7	%	0.23				0.22%
ScR 361.383	330798.8	108.3	%	1.00				0.92%
Ag 328.068†	82390.2	0.5117	mg/L	0.00362	0.5117	mg/L	0.00362	0.71%
Al 308.215†	3222.0	1.921	mg/L	0.0175	1.921	mg/L	0.0175	0.91%
As 188.979†	3379.4	2.000	mg/L	0.0014	2.000	mg/L	0.0014	0.07%
B 249.677†	12.9	0.00075	mg/L	0.000553	0.00075	mg/L	0.000553	73.28%
Ba 233.527†	8242.8	1.966	mg/L	0.0126	1.966	mg/L	0.0126	0.64%
Be 313.042†	301798.4	0.4887	mg/L	0.00481	0.4887	mg/L	0.00481	0.98%
Ca 317.933†	125842.8	9.461	mg/L	0.0889	9.461	mg/L	0.0889	0.94%
Cd 228.802†	15203.0	0.5079	mg/L	0.00423	0.5079	mg/L	0.00423	0.83%
Co 228.616†	16840.9	0.5014	mg/L	0.00421	0.5014	mg/L	0.00421	0.84%
Cr 267.716†	2946.0	0.4947	mg/L	0.00344	0.4947	mg/L	0.00344	0.70%
Cu 324.752†	125615.0	0.5126	mg/L	0.00320	0.5126	mg/L	0.00320	0.62%
Fe 273.955†	2553.5	1.942	mg/L	0.0128	1.942	mg/L	0.0128	0.66%
K 766.490†	18134.4	9.506	mg/L	0.0648	9.506	mg/L	0.0648	0.68%
Mg 279.077†	13324.4	9.794	mg/L	0.0808	9.794	mg/L	0.0808	0.82%
Mn 257.610†	17443.5	0.4883	mg/L	0.00398	0.4883	mg/L	0.00398	0.82%
Mo 202.031†	20.0	0.00091	mg/L	0.000083	0.00091	mg/L	0.000083	9.11%
Na 589.592†	112963.3	9.678	mg/L	0.0704	9.678	mg/L	0.0704	0.73%
Na 330.237†	282.9	9.961	mg/L	0.2606	9.961	mg/L	0.2606	2.62%
Ni 231.604†	1825.1	0.4873	mg/L	0.00458	0.4873	mg/L	0.00458	0.94%
Pb 220.353†	14446.9	1.936	mg/L	0.0176	1.936	mg/L	0.0176	0.91%
Sb 206.836†	10.4	-0.00189	mg/L	0.000939	-0.00189	mg/L	0.000939	49.64%
Se 196.026†	2673.2	1.979	mg/L	0.0024	1.979	mg/L	0.0024	0.12%
Si 288.158†	113.7	0.05764	mg/L	0.017805	0.05764	mg/L	0.017805	30.89%
Sn 189.927†	-18.2	-0.00367	mg/L	0.000562	-0.00367	mg/L	0.000562	15.32%
Sr 421.552†	420449.3	0.4915	mg/L	0.00393	0.4915	mg/L	0.00393	0.80%
Ti 334.903†	-1.9	-0.00064	mg/L	0.000432	-0.00064	mg/L	0.000432	67.43%
Tl 190.801†	4459.6	1.946	mg/L	0.0016	1.946	mg/L	0.0016	0.08%
V 292.402†	59847.1	0.4999	mg/L	0.00363	0.4999	mg/L	0.00363	0.73%
Zn 206.200†	1746.0	0.4884	mg/L	0.00309	0.4884	mg/L	0.00309	0.63%

Sequence No.: 11
Sample ID: CV-7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 2:16:54 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	223.0 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	2535834.6	106.3	%	0.44				0.41%
ScR 361.383	329509.4	107.9	%	1.34				1.24%
Ag 328.068†	163053.1	1.013	mg/L	0.0058	1.013	mg/L	0.0058	0.57%
Al 308.215†	3292.9	1.938	mg/L	0.0283	1.938	mg/L	0.0283	1.46%
As 188.979†	3366.6	2.016	mg/L	0.0027	2.016	mg/L	0.0027	0.14%
B 249.677†	7027.8	0.9690	mg/L	0.01290	0.9690	mg/L	0.01290	1.33%
Ba 233.527†	4141.9	0.9877	mg/L	0.01502	0.9877	mg/L	0.01502	1.52%
Be 313.042†	592921.1	0.9601	mg/L	0.01068	0.9601	mg/L	0.01068	1.11%
Ca 317.933†	25248.7	1.898	mg/L	0.0209	1.898	mg/L	0.0209	1.10%
Cd 228.802†	29711.5	1.005	mg/L	0.0044	1.005	mg/L	0.0044	0.44%
Co 228.616†	33374.9	0.9922	mg/L	0.00678	0.9922	mg/L	0.00678	0.68%
Cr 267.716†	5909.4	0.9938	mg/L	0.01563	0.9938	mg/L	0.01563	1.57%
Cu 324.752†	238908.3	0.9744	mg/L	0.00146	0.9744	mg/L	0.00146	0.15%
Fe 273.955†	2604.3	1.977	mg/L	0.0300	1.977	mg/L	0.0300	1.52%
K 766.490†	36644.0	19.21	mg/L	0.274	19.21	mg/L	0.274	1.43%
Mg 279.077†	2642.7	1.949	mg/L	0.0357	1.949	mg/L	0.0357	1.83%
Mn 257.610†	34032.1	0.9524	mg/L	0.01132	0.9524	mg/L	0.01132	1.19%
Mo 202.031†	18602.9	0.9669	mg/L	0.00596	0.9669	mg/L	0.00596	0.62%
Na 589.592†	577810.8	49.51	mg/L	0.500	49.51	mg/L	0.500	1.01%
Na 330.237†	1414.1	50.48	mg/L	0.617	50.48	mg/L	0.617	1.22%
Ni 231.604†	3681.6	0.9850	mg/L	0.01709	0.9850	mg/L	0.01709	1.74%
Pb 220.353†	14513.2	1.945	mg/L	0.0085	1.945	mg/L	0.0085	0.44%
Sb 206.836†	6420.6	2.044	mg/L	0.0059	2.044	mg/L	0.0059	0.29%
Se 196.026†	2670.5	1.976	mg/L	0.0045	1.976	mg/L	0.0045	0.23%
Si 288.158†	4161.8	1.997	mg/L	0.0415	1.997	mg/L	0.0415	2.08%
Sn 189.927†	3637.5	0.9780	mg/L	0.00315	0.9780	mg/L	0.00315	0.32%
Sr 421.552†	831706.0	0.9723	mg/L	0.01022	0.9723	mg/L	0.01022	1.05%
Ti 334.903†	19776.2	0.9512	mg/L	0.01147	0.9512	mg/L	0.01147	1.21%
Tl 190.801†	4507.4	1.963	mg/L	0.0052	1.963	mg/L	0.0052	0.26%
V 292.402†	120549.0	1.007	mg/L	0.0051	1.007	mg/L	0.0051	0.50%
Zn 206.200†	3650.0	1.021	mg/L	0.0179	1.021	mg/L	0.0179	1.75%

Sequence No.: 12
Sample ID: CB 7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 2:22:00 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2538855.2	106.5	%	0.48				0.45%
ScR 361.383	327426.9	107.2	%	0.99				0.93%
Ag 328.068†	21.6	0.00013	mg/L	0.000035	0.00013	mg/L	0.000035	25.97%
Al 308.215†	-6.3	-0.00377	mg/L	0.001857	-0.00377	mg/L	0.001857	49.29%
As 188.979†	-0.8	-0.00051	mg/L	0.002545	-0.00051	mg/L	0.002545	503.57%
B 249.677†	8.6	0.00118	mg/L	0.001219	0.00118	mg/L	0.001219	103.28%
Ba 233.527†	1.2	0.00028	mg/L	0.000450	0.00028	mg/L	0.000450	161.33%
Be 313.042†	75.1	0.00012	mg/L	0.000040	0.00012	mg/L	0.000040	33.02%
Ca 317.933†	342.6	0.02576	mg/L	0.001590	0.02576	mg/L	0.001590	6.17%
Cd 228.802†	-4.4	-0.00015	mg/L	0.000175	-0.00015	mg/L	0.000175	118.89%
Co 228.616†	7.4	0.00022	mg/L	0.000047	0.00022	mg/L	0.000047	21.00%
Cr 267.716†	4.0	0.00067	mg/L	0.000067	0.00067	mg/L	0.000067	9.94%
Cu 324.752†	-62.6	-0.00026	mg/L	0.000060	-0.00026	mg/L	0.000060	23.60%
Fe 273.955†	3.8	0.00287	mg/L	0.000897	0.00287	mg/L	0.000897	31.22%
K 766.490†	-23.7	-0.01242	mg/L	0.011678	-0.01242	mg/L	0.011678	94.00%
Mg 279.077†	-8.3	-0.00611	mg/L	0.001846	-0.00611	mg/L	0.001846	30.23%
Mn 257.610†	5.8	0.00016	mg/L	0.000066	0.00016	mg/L	0.000066	40.75%
Mo 202.031†	10.7	0.00056	mg/L	0.000062	0.00056	mg/L	0.000062	11.13%
Na 589.592†	433.8	0.03717	mg/L	0.001356	0.03717	mg/L	0.001356	3.65%
Na 330.237†	3.2	0.1133	mg/L	0.57014	0.1133	mg/L	0.57014	503.39%
Ni 231.604†	5.5	0.00147	mg/L	0.000443	0.00147	mg/L	0.000443	30.12%
Pb 220.353†	-1.4	-0.00019	mg/L	0.000386	-0.00019	mg/L	0.000386	207.37%
Sb 206.836†	1.3	0.00040	mg/L	0.001011	0.00040	mg/L	0.001011	255.72%
Se 196.026†	2.4	0.00176	mg/L	0.002862	0.00176	mg/L	0.002862	162.38%
Si 288.158†	40.9	0.01960	mg/L	0.006760	0.01960	mg/L	0.006760	34.49%
Sn 189.927†	1.9	0.00051	mg/L	0.000983	0.00051	mg/L	0.000983	193.28%
Sr 421.552†	212.8	0.00025	mg/L	0.000025	0.00025	mg/L	0.000025	10.01%
Ti 334.903†	-11.1	-0.00054	mg/L	0.000877	-0.00054	mg/L	0.000877	162.82%
Tl 190.801†	3.8	0.00164	mg/L	0.001209	0.00164	mg/L	0.001209	73.59%
V 292.402†	-0.4	0.00000	mg/L	0.000224	0.00000	mg/L	0.000224	>999.9%
Zn 206.200†	-2.0	-0.00055	mg/L	0.000354	-0.00055	mg/L	0.000354	64.08%

Sequence No.: 13
Sample ID: VS91 MB2 LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 339
Date Collected: 11/19/2012 2:26:15 PM
Data Type: Original

Nebulizer Parameters: VS91 MB2 LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 MB2 LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2542134.2	106.6	%	0.48				0.45%
ScR 361.383	330388.5	108.2	%	0.45				0.42%
Ag 328.068†	34.4	0.00021	mg/L	0.000050	0.00107	mg/L	0.000249	23.28%
Al 308.215†	-0.6	-0.00038	mg/L	0.004816	-0.00190	mg/L	0.024080	>999.9%
As 188.979†	3.7	0.00210	mg/L	0.001483	0.01048	mg/L	0.007414	70.74%
B 249.677†	108.1	0.01491	mg/L	0.000461	0.07456	mg/L	0.002306	3.09%
Ba 233.527†	2.5	0.00058	mg/L	0.000632	0.00292	mg/L	0.003160	108.13%
Be 313.042†	104.7	0.00017	mg/L	0.000018	0.00085	mg/L	0.000089	10.53%
Ca 317.933†	8186.6	0.6155	mg/L	0.00294	3.077	mg/L	0.0147	0.48%
Cd 228.802†	-2.6	-0.00010	mg/L	0.000055	-0.00051	mg/L	0.000273	53.93%
Co 228.616†	10.0	0.00030	mg/L	0.000180	0.00150	mg/L	0.000899	59.88%
Cr 267.716†	7.9	0.00132	mg/L	0.000993	0.00660	mg/L	0.004965	75.26%
Cu 324.752†	-11.2	-0.00005	mg/L	0.000051	-0.00023	mg/L	0.000256	112.57%
Fe 273.955†	4.4	0.00335	mg/L	0.000908	0.01674	mg/L	0.004539	27.12%
K 766.490†	20.5	0.01076	mg/L	0.011135	0.05379	mg/L	0.055674	103.49%
Mg 279.077†	40.4	0.02972	mg/L	0.008537	0.1486	mg/L	0.04269	28.72%
Mn 257.610†	10.4	0.00029	mg/L	0.000075	0.00145	mg/L	0.000377	25.99%
Mo 202.031†	3.6	0.00018	mg/L	0.000233	0.00091	mg/L	0.001166	127.80%
Na 589.592†	6561.5	0.5622	mg/L	0.00423	2.811	mg/L	0.0212	0.75%
Na 330.237†	20.6	0.7359	mg/L	0.32673	3.679	mg/L	1.6337	44.40%
Ni 231.604†	7.3	0.00196	mg/L	0.000295	0.00980	mg/L	0.001475	15.05%
Pb 220.353†	4.3	0.00057	mg/L	0.000802	0.00286	mg/L	0.004012	140.18%
Sb 206.836†	-3.7	-0.00118	mg/L	0.002244	-0.00592	mg/L	0.011221	189.55%
Se 196.026†	1.8	0.00131	mg/L	0.002291	0.00654	mg/L	0.011457	175.16%
Si 288.158†	77.8	0.03733	mg/L	0.003360	0.1866	mg/L	0.01680	9.00%
Sn 189.927†	-0.1	0.00004	mg/L	0.000809	0.00020	mg/L	0.004045	>999.9%
Sr 421.552†	1201.7	0.00140	mg/L	0.000013	0.00702	mg/L	0.000067	0.95%
Ti 334.903†	-21.0	-0.00104	mg/L	0.001003	-0.00521	mg/L	0.005015	96.25%
Tl 190.801†	-2.1	-0.00092	mg/L	0.001315	-0.00462	mg/L	0.006576	142.39%
V 292.402†	13.9	0.00012	mg/L	0.000182	0.00061	mg/L	0.000910	149.62%
Zn 206.200†	8.5	0.00238	mg/L	0.000250	0.01189	mg/L	0.001250	10.51%

Sequence No.: 14
Sample ID: VS91 C LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 340
Date Collected: 11/19/2012 2:30:30 PM
Data Type: Original

Nebulizer Parameters: VS91 C LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 C LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2444908.4	102.5	%	0.72				0.70%
ScR 361.383	321640.6	105.3	%	2.21	.			2.10%
Ag 328.068†	-372.2	-0.00231	mg/L	0.000292	-0.01155	mg/L	0.001460	12.63%
Al 308.215†	13.1	0.00760	mg/L	0.005626	0.03798	mg/L	0.028132	74.07%
As 188.979†	74.6	0.02070	mg/L	0.002527	0.1035	mg/L	0.01263	12.21%
B 249.677†	174.5	0.02408	mg/L	0.001104	0.1204	mg/L	0.00552	4.58%
Ba 233.527†	1701.7	0.4060	mg/L	0.00905	2.030	mg/L	0.0453	2.23%
Be 313.042†	64.7	0.00010	mg/L	0.000039	0.00052	mg/L	0.000197	37.75%
Ca 317.933†	5494694.5	413.1	mg/L	8.78	2066	mg/L	43.89	2.12%
Cd 228.802†	31.2	0.00078	mg/L	0.000041	0.00391	mg/L	0.000203	5.18%
Co 228.616†	233.0	0.00686	mg/L	0.000223	0.03432	mg/L	0.001115	3.25%
Cr 267.716†	51.5	0.00452	mg/L	0.000394	0.02260	mg/L	0.001969	8.71%
Cu 324.752†	3718.7	0.01513	mg/L	0.000276	0.07567	mg/L	0.001378	1.82%
Fe 273.955†	23.1	0.01760	mg/L	0.001519	0.08799	mg/L	0.007594	8.63%
K 766.490†	4951.1	2.595	mg/L	0.0397	12.98	mg/L	0.198	1.53%
Mg 279.077†	5028.4	3.696	mg/L	0.1036	18.48	mg/L	0.518	2.80%
Mn 257.610†	10155.7	0.2830	mg/L	0.00767	1.415	mg/L	0.0383	2.71%
Mo 202.031†	197.6	0.00581	mg/L	0.000249	0.02904	mg/L	0.001243	4.28%
Na 589.592†	30593.1	2.621	mg/L	0.0384	13.11	mg/L	0.192	1.47%
Na 330.237†	86.8	3.058	mg/L	0.1272	15.29	mg/L	0.636	4.16%
Ni 231.604†	32.9	0.00882	mg/L	0.001312	0.04411	mg/L	0.006559	14.87%
Pb 220.353†	3827.7	0.5127	mg/L	0.00704	2.564	mg/L	0.0352	1.37%
Sb 206.836†	94.2	0.02963	mg/L	0.000470	0.1481	mg/L	0.00235	1.59%
Se 196.026†	-32.2	-0.02385	mg/L	0.003272	-0.1193	mg/L	0.01636	13.72%
Si 288.158†	34346.2	16.48	mg/L	0.244	82.41	mg/L	1.221	1.48%
Sn 189.927†	-103.8	0.02326	mg/L	0.000770	0.1163	mg/L	0.00385	3.31%
Sr 421.552†	1099245.8	1.285	mg/L	0.0307	6.425	mg/L	0.1537	2.39%
Ti 334.903†	455.5	0.00221	mg/L	0.000673	0.01105	mg/L	0.003365	30.46%
Tl 190.801†	20.2	0.00882	mg/L	0.002643	0.04412	mg/L	0.013214	29.95%
V 292.402†	129.6	0.00115	mg/L	0.000042	0.00576	mg/L	0.000208	3.62%
Zn 206.200†	569.9	0.1594	mg/L	0.00436	0.7970	mg/L	0.02179	2.73%

Sequence No.: 15
Sample ID: VS91 D LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 341
Date Collected: 11/19/2012 2:35:03 PM
Data Type: Original

Nebulizer Parameters: VS91 D LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 D LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2472328.1	103.7	%	0.42				0.40%
ScR 361.383	323868.8	106.1	%	1.23				1.16%
Ag 328.068†	-335.1	-0.00208	mg/L	0.000171	-0.01039	mg/L	0.000854	8.22%
Al 308.215†	5.1	0.00263	mg/L	0.003750	0.01314	mg/L	0.018751	142.68%
As 188.979†	57.8	0.01328	mg/L	0.002202	0.06641	mg/L	0.011010	16.58%
B 249.677†	27.8	0.00385	mg/L	0.000840	0.01923	mg/L	0.004202	21.85%
Ba 233.527†	569.1	0.1358	mg/L	0.00114	0.6789	mg/L	0.00569	0.84%
Be 313.042†	68.3	0.00011	mg/L	0.000015	0.00054	mg/L	0.000077	14.18%
Ca 317.933†	4888442.0	367.5	mg/L	2.27	1838	mg/L	11.36	0.62%
Cd 228.802†	6.5	-0.00000	mg/L	0.000059	-0.00000	mg/L	0.000293	>999.9%
Co 228.616†	16.4	0.00044	mg/L	0.000107	0.00221	mg/L	0.000536	24.20%
Cr 267.716†	344.6	0.05460	mg/L	0.000885	0.2730	mg/L	0.00443	1.62%
Cu 324.752†	4897.2	0.01997	mg/L	0.000300	0.09985	mg/L	0.001501	1.50%
Fe 273.955†	6.4	0.00486	mg/L	0.003353	0.02428	mg/L	0.016767	69.07%
K 766.490†	3166.8	1.660	mg/L	0.0364	8.300	mg/L	0.1822	2.19%
Mg 279.077†	154.3	0.1135	mg/L	0.00149	0.5676	mg/L	0.00744	1.31%
Mn 257.610†	48.5	0.00030	mg/L	0.000125	0.00152	mg/L	0.000627	41.34%
Mo 202.031†	245.5	0.00879	mg/L	0.000240	0.04393	mg/L	0.001201	2.73%
Na 589.592†	29957.5	2.567	mg/L	0.0273	12.83	mg/L	0.136	1.06%
Na 330.237†	83.5	2.991	mg/L	0.1814	14.96	mg/L	0.907	6.06%
Ni 231.604†	14.6	0.00389	mg/L	0.001424	0.01947	mg/L	0.007122	36.58%
Pb 220.353†	-30.4	-0.00400	mg/L	0.000250	-0.01998	mg/L	0.001250	6.25%
Sb 206.836†	8.0	0.00152	mg/L	0.001446	0.00760	mg/L	0.007228	95.15%
Se 196.026†	-31.1	-0.02305	mg/L	0.002096	-0.1152	mg/L	0.01048	9.10%
Si 288.158†	8749.7	4.199	mg/L	0.0544	20.99	mg/L	0.272	1.29%
Sn 189.927†	-94.7	0.02004	mg/L	0.000194	0.1002	mg/L	0.00097	0.97%
Sr 421.552†	1069480.7	1.250	mg/L	0.0163	6.251	mg/L	0.0813	1.30%
Ti 334.903†	408.5	0.00211	mg/L	0.000291	0.01055	mg/L	0.001454	13.78%
Tl 190.801†	24.4	0.01064	mg/L	0.002913	0.05318	mg/L	0.014564	27.39%
V 292.402†	1255.0	0.01068	mg/L	0.000032	0.05342	mg/L	0.000158	0.30%
Zn 206.200†	-0.5	-0.00014	mg/L	0.000519	-0.00071	mg/L	0.002596	367.07%

Sequence No.: 16
Sample ID: VS91 E LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 342
Date Collected: 11/19/2012 2:39:36 PM
Data Type: Original

Nebulizer Parameters: VS91 E LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 E LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2452666.2	102.9	%	0.45				0.44%
ScR 361.383	326503.3	106.9	%	0.76				0.71%
Ag 328.068†	-183.6	-0.00114	mg/L	0.000298	-0.00570	mg/L	0.001489	26.14%
Al 308.215†	469.9	0.2811	mg/L	0.00900	1.405	mg/L	0.0450	3.20%
As 188.979†	50.6	0.02017	mg/L	0.002512	0.1008	mg/L	0.01256	12.45%
B 249.677†	11.8	0.00164	mg/L	0.000820	0.00822	mg/L	0.004100	49.90%
Ba 233.527†	593.6	0.1416	mg/L	0.00210	0.7082	mg/L	0.01051	1.48%
Be 313.042†	16.9	0.00003	mg/L	0.000008	0.00013	mg/L	0.000040	29.31%
Ca 317.933†	2284105.2	171.7	mg/L	1.66	858.6	mg/L	8.29	0.97%
Cd 228.802†	9.4	0.00013	mg/L	0.000055	0.00064	mg/L	0.000273	42.90%
Co 228.616†	16.5	0.00046	mg/L	0.000176	0.00232	mg/L	0.000880	37.90%
Cr 267.716†	189.7	0.03035	mg/L	0.001290	0.1518	mg/L	0.00645	4.25%
Cu 324.752†	5312.4	0.02167	mg/L	0.000123	0.1083	mg/L	0.00062	0.57%
Fe 273.955†	5.1	0.00393	mg/L	0.002210	0.01967	mg/L	0.011051	56.18%
K 766.490†	3806.9	1.995	mg/L	0.0099	9.977	mg/L	0.0495	0.50%
Mg 279.077†	32.5	0.02399	mg/L	0.003418	0.1199	mg/L	0.01709	14.25%
Mn 257.610†	26.8	0.00026	mg/L	0.000138	0.00129	mg/L	0.000689	53.57%
Mo 202.031†	179.4	0.00747	mg/L	0.000138	0.03735	mg/L	0.000691	1.85%
Na 589.592†	3320018.1	284.4	mg/L	1.79	1422	mg/L	8.96	0.63%
Na 330.237†	8060.8	288.4	mg/L	1.08	1442	mg/L	5.42	0.38%
Ni 231.604†	11.7	0.00313	mg/L	0.000765	0.01566	mg/L	0.003823	24.41%
Pb 220.353†	-15.5	-0.00199	mg/L	0.000481	-0.00994	mg/L	0.002403	24.18%
Sb 206.836†	-0.3	-0.00075	mg/L	0.000854	-0.00373	mg/L	0.004270	114.54%
Se 196.026†	-18.2	-0.01348	mg/L	0.003817	-0.06738	mg/L	0.019084	28.32%
Si 288.158†	2249.2	1.079	mg/L	0.0243	5.397	mg/L	0.1214	2.25%
Sn 189.927†	-81.1	-0.00055	mg/L	0.001345	-0.00273	mg/L	0.006723	245.95%
Sr 421.552†	643522.7	0.7523	mg/L	0.00729	3.761	mg/L	0.0364	0.97%
Ti 334.903†	196.8	0.00126	mg/L	0.000384	0.00632	mg/L	0.001918	30.32%
Tl 190.801†	24.9	0.01090	mg/L	0.001515	0.05449	mg/L	0.007576	13.90%
V 292.402†	168.6	0.00154	mg/L	0.000202	0.00770	mg/L	0.001009	13.10%
Zn 206.200†	2.7	0.00076	mg/L	0.000763	0.00381	mg/L	0.003816	100.04%

Sequence No.: 17
Sample ID: VS91 F LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 343
Date Collected: 11/19/2012 2:44:09 PM
Data Type: Original

Nebulizer Parameters: VS91 F LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 F LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2438062.6	102.2	%	0.42				0.41%
ScR 361.383	321930.5	105.4	%	0.56				0.53%
Ag 328.068†	-163.7	-0.00102	mg/L	0.000304	-0.00508	mg/L	0.001522	29.97%
Al 308.215†	275.2	0.1645	mg/L	0.00571	0.8226	mg/L	0.02857	3.47%
As 188.979†	48.0	0.01876	mg/L	0.002086	0.09382	mg/L	0.010431	11.12%
B 249.677†	4.8	0.00067	mg/L	0.000691	0.00333	mg/L	0.003453	103.64%
Ba 233.527†	529.2	0.1263	mg/L	0.00109	0.6313	mg/L	0.00546	0.86%
Be 313.042†	42.4	0.00007	mg/L	0.000009	0.00034	mg/L	0.000043	12.63%
Ca 317.933†	2260139.7	169.9	mg/L	2.55	849.6	mg/L	12.75	1.50%
Cd 228.802†	13.5	0.00028	mg/L	0.000020	0.00139	mg/L	0.000102	7.38%
Co 228.616†	20.4	0.00058	mg/L	0.000247	0.00289	mg/L	0.001237	42.77%
Cr 267.716†	174.4	0.02779	mg/L	0.000570	0.1390	mg/L	0.00285	2.05%
Cu 324.752†	5702.9	0.02326	mg/L	0.000091	0.1163	mg/L	0.00046	0.39%
Fe 273.955†	5.1	0.00389	mg/L	0.002890	0.01947	mg/L	0.014451	74.21%
K 766.490†	3478.3	1.823	mg/L	0.0262	9.116	mg/L	0.1310	1.44%
Mg 279.077†	29.9	0.02205	mg/L	0.001029	0.1103	mg/L	0.00514	4.67%
Mn 257.610†	23.9	0.00018	mg/L	0.000080	0.00091	mg/L	0.000401	44.13%
Mo 202.031†	165.8	0.00678	mg/L	0.000290	0.03390	mg/L	0.001451	4.28%
Na 589.592†	3387084.8	290.2	mg/L	2.20	1451	mg/L	11.00	0.76%
Na 330.237†	8192.6	293.2	mg/L	2.15	1466	mg/L	10.77	0.73%
Ni 231.604†	10.4	0.00279	mg/L	0.001128	0.01396	mg/L	0.005641	40.42%
Pb 220.353†	-16.2	-0.00211	mg/L	0.000542	-0.01054	mg/L	0.002711	25.72%
Sb 206.836†	2.2	0.00010	mg/L	0.000362	0.00050	mg/L	0.001811	359.03%
Se 196.026†	-23.8	-0.01764	mg/L	0.004764	-0.08822	mg/L	0.023822	27.00%
Si 288.158†	3758.2	1.804	mg/L	0.0170	9.018	mg/L	0.0852	0.94%
Sn 189.927†	-78.0	0.00007	mg/L	0.000923	0.00034	mg/L	0.004617	>999.9%
Sr 421.552†	587827.0	0.6872	mg/L	0.01015	3.436	mg/L	0.0507	1.48%
Ti 334.903†	209.0	0.00194	mg/L	0.000291	0.00971	mg/L	0.001454	14.96%
Tl 190.801†	21.6	0.00942	mg/L	0.002487	0.04709	mg/L	0.012437	26.41%
V 292.402†	353.3	0.00306	mg/L	0.000083	0.01532	mg/L	0.000416	2.72%
Zn 206.200†	2.2	0.00062	mg/L	0.000467	0.00311	mg/L	0.002337	75.12%

Sequence No.: 18
Sample ID: VS91 G LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 344
Date Collected: 11/19/2012 2:48:42 PM
Data Type: Original

Nebulizer Parameters: VS91 G LEN

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VS91 G LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2427110.1	101.8	%	0.66				0.65%
ScR 361.383	315304.2	103.2	%	0.69				0.67%
Ag 328.068†	-344.7	-0.00214	mg/L	0.000059	-0.01068	mg/L	0.000293	2.74%
Al 308.215†	9.5	0.00522	mg/L	0.004584	0.02612	mg/L	0.022919	87.75%
As 188.979†	60.6	0.01395	mg/L	0.002272	0.06976	mg/L	0.011358	16.28%
B 249.677†	31.0	0.00429	mg/L	0.000479	0.02143	mg/L	0.002393	11.17%
Ba 233.527†	627.6	0.1497	mg/L	0.00210	0.7487	mg/L	0.01050	1.40%
Be 313.042†	58.7	0.00009	mg/L	0.000016	0.00046	mg/L	0.000080	17.35%
Ca 317.933†	5118450.2	384.8	mg/L	1.51	1924	mg/L	7.54	0.39%
Cd 228.802†	9.1	0.00008	mg/L	0.000210	0.00038	mg/L	0.001051	276.56%
Co 228.616†	19.4	0.00053	mg/L	0.000063	0.00265	mg/L	0.000316	11.95%
Cr 267.716†	308.6	0.04839	mg/L	0.000491	0.2419	mg/L	0.00246	1.02%
Cu 324.752†	5687.3	0.02319	mg/L	0.000327	0.1160	mg/L	0.00164	1.41%
Fe 273.955†	9.5	0.00723	mg/L	0.002369	0.03613	mg/L	0.011843	32.78%
K 766.490†	3201.2	1.678	mg/L	0.0264	8.390	mg/L	0.1320	1.57%
Mg 279.077†	251.0	0.1846	mg/L	0.00535	0.9230	mg/L	0.02675	2.90%
Mn 257.610†	50.6	0.00031	mg/L	0.000163	0.00157	mg/L	0.000815	52.03%
Mo 202.031†	240.5	0.00834	mg/L	0.000294	0.04169	mg/L	0.001468	3.52%
Na 589.592†	31510.0	2.700	mg/L	0.0376	13.50	mg/L	0.188	1.39%
Na 330.237†	83.6	2.995	mg/L	0.2292	14.97	mg/L	1.146	7.65%
Ni 231.604†	18.4	0.00492	mg/L	0.001383	0.02458	mg/L	0.006914	28.13%
Pb 220.353†	-29.4	-0.00388	mg/L	0.001878	-0.01942	mg/L	0.009391	48.36%
Sb 206.836†	10.1	0.00228	mg/L	0.000688	0.01140	mg/L	0.003439	30.15%
Se 196.026†	-32.0	-0.02372	mg/L	0.003498	-0.1186	mg/L	0.01749	14.75%
Si 288.158†	10669.5	5.120	mg/L	0.0586	25.60	mg/L	0.293	1.15%
Sn 189.927†	-100.0	0.02074	mg/L	0.001282	0.1037	mg/L	0.00641	6.18%
Sr 421.552†	1108852.8	1.296	mg/L	0.0064	6.481	mg/L	0.0322	0.50%
Ti 334.903†	422.1	0.00194	mg/L	0.000494	0.00969	mg/L	0.002471	25.51%
Tl 190.801†	24.1	0.01047	mg/L	0.002320	0.05237	mg/L	0.011598	22.15%
V 292.402†	1585.0	0.01340	mg/L	0.000114	0.06701	mg/L	0.000571	0.85%
Zn 206.200†	1.3	0.00036	mg/L	0.000373	0.00180	mg/L	0.001866	103.49%

Sequence No.: 19
Sample ID: VS91 H LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 345
Date Collected: 11/19/2012 2:52:58 PM
Data Type: Original

Nebulizer Parameters: VS91 H LEN

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VS91 H LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2457924.7	103.1	%	0.62				0.61%
ScR 361.383	316856.4	103.8	%	0.66				0.64%
Ag 328.068†	-313.9	-0.00195	mg/L	0.000287	-0.00975	mg/L	0.001435	14.73%
Al 308.215†	150.4	0.08975	mg/L	0.001094	0.4488	mg/L	0.00547	1.22%
As 188.979†	60.8	0.01535	mg/L	0.002324	0.07676	mg/L	0.011619	15.14%
B 249.677†	-29.7	-0.00409	mg/L	0.000556	-0.02043	mg/L	0.002782	13.62%
Ba 233.527†	937.3	0.2236	mg/L	0.00165	1.118	mg/L	0.0082	0.74%
Be 313.042†	59.5	0.00010	mg/L	0.000021	0.00048	mg/L	0.000105	21.96%
Ca 317.933†	4814653.7	362.0	mg/L	3.13	1810	mg/L	15.66	0.87%
Cd 228.802†	5.0	-0.00007	mg/L	0.000104	-0.00034	mg/L	0.000519	154.77%
Co 228.616†	14.1	0.00037	mg/L	0.000046	0.00184	mg/L	0.000228	12.40%
Cr 267.716†	323.2	0.05106	mg/L	0.001338	0.2553	mg/L	0.00669	2.62%
Cu 324.752†	2798.1	0.01141	mg/L	0.000166	0.05704	mg/L	0.000831	1.46%
Fe 273.955†	8.7	0.00673	mg/L	0.001286	0.03367	mg/L	0.006429	19.09%
K 766.490†	3976.4	2.084	mg/L	0.0062	10.42	mg/L	0.031	0.30%
Mg 279.077†	85.3	0.06283	mg/L	0.006561	0.3141	mg/L	0.03281	10.44%
Mn 257.610†	50.2	0.00037	mg/L	0.000046	0.00184	mg/L	0.000231	12.51%
Mo 202.031†	230.7	0.00808	mg/L	0.000403	0.04038	mg/L	0.002014	4.99%
Na 589.592†	32788.6	2.809	mg/L	0.0123	14.05	mg/L	0.062	0.44%
Na 330.237†	94.2	3.375	mg/L	0.1681	16.87	mg/L	0.840	4.98%
Ni 231.604†	9.2	0.00245	mg/L	0.000933	0.01225	mg/L	0.004665	38.08%
Pb 220.353†	-32.8	-0.00430	mg/L	0.000109	-0.02148	mg/L	0.000547	2.55%
Sb 206.836†	-4.8	-0.00254	mg/L	0.000394	-0.01269	mg/L	0.001969	15.52%
Se 196.026†	-28.5	-0.02111	mg/L	0.005539	-0.1055	mg/L	0.02769	26.24%
Si 288.158†	1877.7	0.9012	mg/L	0.01865	4.506	mg/L	0.0933	2.07%
Sn 189.927†	-94.4	0.01943	mg/L	0.000836	0.09715	mg/L	0.004181	4.30%
Sr 421.552†	1206299.8	1.410	mg/L	0.0097	7.051	mg/L	0.0487	0.69%
Ti 334.903†	396.5	0.00180	mg/L	0.000389	0.00898	mg/L	0.001943	21.64%
Tl 190.801†	23.7	0.01035	mg/L	0.001662	0.05176	mg/L	0.008308	16.05%
V 292.402†	81.1	0.00090	mg/L	0.000054	0.00452	mg/L	0.000268	5.94%
Zn 206.200†	1.7	0.00046	mg/L	0.000454	0.00229	mg/L	0.002269	98.91%

Sequence No.: 20
Sample ID: CV 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 2:57:14 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2507886.4	105.2	%	0.46				0.44%
ScR 361.383	325619.4	106.6	%	0.43				0.41%
Ag 328.068†	164466.9	1.022	mg/L	0.0043	1.022	mg/L	0.0043	0.42%
Al 308.215†	3305.7	1.945	mg/L	0.0105	1.945	mg/L	0.0105	0.54%
As 188.979†	3384.0	2.027	mg/L	0.0025	2.027	mg/L	0.0025	0.13%
B 249.677†	7039.5	0.9706	mg/L	0.00707	0.9706	mg/L	0.00707	0.73%
Ba 233.527†	4169.2	0.9943	mg/L	0.00414	0.9943	mg/L	0.00414	0.42%
Be 313.042†	590598.7	0.9563	mg/L	0.00544	0.9563	mg/L	0.00544	0.57%
Ca 317.933†	26360.7	1.982	mg/L	0.0156	1.982	mg/L	0.0156	0.79%
Cd 228.802†	29714.6	1.005	mg/L	0.0033	1.005	mg/L	0.0033	0.33%
Co 228.616†	33535.5	0.9969	mg/L	0.00252	0.9969	mg/L	0.00252	0.25%
Cr 267.716†	5910.8	0.9941	mg/L	0.00450	0.9941	mg/L	0.00450	0.45%
Cu 324.752†	240468.5	0.9808	mg/L	0.00169	0.9808	mg/L	0.00169	0.17%
Fe 273.955†	2579.7	1.958	mg/L	0.0124	1.958	mg/L	0.0124	0.63%
K 766.490†	36844.2	19.31	mg/L	0.149	19.31	mg/L	0.149	0.77%
Mg 279.077†	2637.0	1.945	mg/L	0.0083	1.945	mg/L	0.0083	0.42%
Mn 257.610†	33961.3	0.9504	mg/L	0.00638	0.9504	mg/L	0.00638	0.67%
Mo 202.031†	18645.9	0.9692	mg/L	0.00168	0.9692	mg/L	0.00168	0.17%
Na 589.592†	581953.0	49.86	mg/L	0.332	49.86	mg/L	0.332	0.67%
Na 330.237†	1419.2	50.67	mg/L	0.443	50.67	mg/L	0.443	0.87%
Ni 231.604†	3690.3	0.9874	mg/L	0.00703	0.9874	mg/L	0.00703	0.71%
Pb 220.353†	14534.4	1.948	mg/L	0.0091	1.948	mg/L	0.0091	0.47%
Sb 206.836†	6471.7	2.061	mg/L	0.0032	2.061	mg/L	0.0032	0.15%
Se 196.026†	2689.2	1.990	mg/L	0.0032	1.990	mg/L	0.0032	0.16%
Si 288.158†	4133.4	1.983	mg/L	0.0178	1.983	mg/L	0.0178	0.90%
Sn 189.927†	3642.9	0.9795	mg/L	0.00396	0.9795	mg/L	0.00396	0.40%
Sr 421.552†	836182.7	0.9775	mg/L	0.00725	0.9775	mg/L	0.00725	0.74%
Ti 334.903†	19875.9	0.9560	mg/L	0.00670	0.9560	mg/L	0.00670	0.70%
Tl 190.801†	4548.5	1.981	mg/L	0.0038	1.981	mg/L	0.0038	0.19%
V 292.402†	121201.6	1.012	mg/L	0.0030	1.012	mg/L	0.0030	0.29%
Zn 206.200†	3629.5	1.015	mg/L	0.0055	1.015	mg/L	0.0055	0.54%

Sequence No.: 21
Sample ID: CB 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 3:02:22 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2540599.2	106.5	%	0.14				0.13%
ScR 361.383	329638.9	107.9	%	0.95				0.88%
Ag 328.068†	12.9	0.00008	mg/L	0.000126	0.00008	mg/L	0.000126	157.65%
Al 308.215†	-10.1	-0.00603	mg/L	0.005580	-0.00603	mg/L	0.005580	92.46%
As 188.979†	-0.1	-0.00005	mg/L	0.001184	-0.00005	mg/L	0.001184	>999.9%
B 249.677†	10.0	0.00138	mg/L	0.000418	0.00138	mg/L	0.000418	30.23%
Ba 233.527†	-0.9	-0.00022	mg/L	0.001330	-0.00022	mg/L	0.001330	613.10%
Be 313.042†	52.4	0.00008	mg/L	0.000018	0.00008	mg/L	0.000018	20.90%
Ca 317.933†	671.7	0.05050	mg/L	0.003130	0.05050	mg/L	0.003130	6.20%
Cd 228.802†	-4.0	-0.00013	mg/L	0.000093	-0.00013	mg/L	0.000093	69.45%
Co 228.616†	2.5	0.00007	mg/L	0.000051	0.00007	mg/L	0.000051	69.78%
Cr 267.716†	7.0	0.00119	mg/L	0.000322	0.00119	mg/L	0.000322	27.15%
Cu 324.752†	-62.7	-0.00026	mg/L	0.000078	-0.00026	mg/L	0.000078	30.36%
Fe 273.955†	2.3	0.00173	mg/L	0.000642	0.00173	mg/L	0.000642	37.15%
K 766.490†	-49.9	-0.02614	mg/L	0.016191	-0.02614	mg/L	0.016191	61.95%
Mg 279.077†	-11.7	-0.00860	mg/L	0.005815	-0.00860	mg/L	0.005815	67.61%
Mn 257.610†	3.2	0.00009	mg/L	0.000172	0.00009	mg/L	0.000172	191.39%
Mo 202.031†	14.9	0.00077	mg/L	0.000224	0.00077	mg/L	0.000224	29.05%
Na 589.592†	578.2	0.04954	mg/L	0.002251	0.04954	mg/L	0.002251	4.54%
Na 330.237†	-0.8	-0.02831	mg/L	0.179175	-0.02831	mg/L	0.179175	632.85%
Ni 231.604†	6.7	0.00179	mg/L	0.001643	0.00179	mg/L	0.001643	91.58%
Pb 220.353†	-3.8	-0.00051	mg/L	0.000787	-0.00051	mg/L	0.000787	154.02%
Sb 206.836†	0.1	0.00003	mg/L	0.002229	0.00003	mg/L	0.002229	>999.9%
Se 196.026†	4.4	0.00328	mg/L	0.001207	0.00328	mg/L	0.001207	36.80%
Si 288.158†	17.7	0.00847	mg/L	0.005582	0.00847	mg/L	0.005582	65.89%
Sn 189.927†	3.4	0.00091	mg/L	0.000856	0.00091	mg/L	0.000856	94.03%
Sr 421.552†	247.4	0.00029	mg/L	0.000021	0.00029	mg/L	0.000021	7.42%
Ti 334.903†	3.7	0.00018	mg/L	0.000666	0.00018	mg/L	0.000666	379.55%
Tl 190.801†	0.3	0.00013	mg/L	0.001862	0.00013	mg/L	0.001862	>999.9%
V 292.402†	10.0	0.00009	mg/L	0.000153	0.00009	mg/L	0.000153	172.04%
Zn 206.200†	-0.4	-0.00011	mg/L	0.000646	-0.00011	mg/L	0.000646	596.33%

Sequence No.: 22
Sample ID: VR35 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 346
Date Collected: 11/19/2012 3:06:37 PM
Data Type: Original

Nebulizer Parameters: VR35 MB1 SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2593583.0	108.8	%	0.32				0.29%
ScR 361.383	336241.4	110.1	%	0.32				0.29%
Ag 328.068†	4.1	0.00003	mg/L	0.000033	0.00005	mg/L	0.000066	129.95%
Al 308.215†	-4.6	-0.00273	mg/L	0.008172	-0.00546	mg/L	0.016344	299.61%
As 188.979†	2.2	0.00129	mg/L	0.000714	0.00258	mg/L	0.001428	55.32%
B 249.677†	3.8	0.00052	mg/L	0.000939	0.00105	mg/L	0.001879	178.94%
Ba 233.527†	-1.1	-0.00026	mg/L	0.000613	-0.00052	mg/L	0.001226	235.94%
Be 313.042†	6.2	0.00001	mg/L	0.000036	0.00002	mg/L	0.000073	359.88%
Ca 317.933†	887.7	0.06674	mg/L	0.008726	0.1335	mg/L	0.01745	13.07%
Cd 228.802†	-10.5	-0.00037	mg/L	0.000046	-0.00073	mg/L	0.000091	12.46%
Co 228.616†	6.8	0.00020	mg/L	0.000054	0.00041	mg/L	0.000108	26.30%
Cr 267.716†	7.5	0.00127	mg/L	0.000562	0.00253	mg/L	0.001123	44.33%
Cu 324.752†	-83.2	-0.00034	mg/L	0.000161	-0.00068	mg/L	0.000321	47.34%
Fe 273.955†	2.7	0.00208	mg/L	0.001631	0.00416	mg/L	0.003261	78.35%
K 766.490†	-41.0	-0.02147	mg/L	0.013007	-0.04294	mg/L	0.026013	60.58%
Mg 279.077†	-0.5	-0.00034	mg/L	0.000396	-0.00069	mg/L	0.000792	114.92%
Mn 257.610†	-2.5	-0.00007	mg/L	0.000139	-0.00014	mg/L	0.000279	195.05%
Mo 202.031†	1.7	0.00009	mg/L	0.000095	0.00018	mg/L	0.000190	108.30%
Na 589.592†	529.0	0.04532	mg/L	0.001886	0.09064	mg/L	0.003773	4.16%
Na 330.237†	1.3	0.04668	mg/L	0.071884	0.09337	mg/L	0.143767	153.98%
Ni 231.604†	6.8	0.00181	mg/L	0.000343	0.00362	mg/L	0.000686	18.96%
Pb 220.353†	-8.5	-0.00114	mg/L	0.000635	-0.00228	mg/L	0.001271	55.76%
Sb 206.836†	-3.7	-0.00119	mg/L	0.001467	-0.00239	mg/L	0.002934	122.97%
Se 196.026†	3.0	0.00222	mg/L	0.002357	0.00444	mg/L	0.004714	106.07%
Si 288.158†	4.5	0.00217	mg/L	0.000639	0.00434	mg/L	0.001278	29.42%
Sn 189.927†	-1.5	-0.00041	mg/L	0.000435	-0.00082	mg/L	0.000870	106.76%
Sr 421.552†	235.8	0.00028	mg/L	0.000030	0.00055	mg/L	0.000060	10.85%
Ti 334.903†	-11.5	-0.00056	mg/L	0.000542	-0.00112	mg/L	0.001083	97.16%
Tl 190.801†	-1.7	-0.00075	mg/L	0.001142	-0.00150	mg/L	0.002284	152.58%
V 292.402†	-13.7	-0.00011	mg/L	0.000168	-0.00022	mg/L	0.000335	154.46%
Zn 206.200†	5.5	0.00153	mg/L	0.000360	0.00306	mg/L	0.000720	23.53%

Sequence No.: 23
Sample ID: VR35 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 347
Date Collected: 11/19/2012 3:10:53 PM
Data Type: Original

Nebulizer Parameters: VR35 B SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2575137.8	108.0	%	0.71				0.66%
ScR 361.383	337948.4	110.7	%	1.43				1.29%
Ag 328.068†	-76.7	-0.00046	mg/L	0.000199	-0.00229	mg/L	0.000997	43.57%
Al 308.215†	44371.6	26.56	mg/L	0.259	132.8	mg/L	1.29	0.97%
As 188.979†	34.9	0.05492	mg/L	0.000914	0.2746	mg/L	0.00457	1.66%
B 249.677†	10.0	0.00135	mg/L	0.001402	0.00676	mg/L	0.007008	103.67%
Ba 233.527†	809.4	0.1872	mg/L	0.00209	0.9361	mg/L	0.01045	1.12%
Be 313.042†	545.5	0.00086	mg/L	0.000029	0.00428	mg/L	0.000147	3.43%
Ca 317.933†	77438.8	5.822	mg/L	0.0607	29.11	mg/L	0.303	1.04%
Cd 228.802†	307.7	0.01009	mg/L	0.000087	0.05043	mg/L	0.000433	0.86%
Co 228.616†	450.7	0.01060	mg/L	0.000102	0.05298	mg/L	0.000511	0.96%
Cr 267.716†	240.2	0.04098	mg/L	0.000494	0.2049	mg/L	0.00247	1.20%
Cu 324.752†	9575.0	0.04034	mg/L	0.000202	0.2017	mg/L	0.00101	0.50%
Fe 273.955†	47048.8	35.84	mg/L	0.385	179.2	mg/L	1.93	1.08%
K 766.490†	4741.7	2.485	mg/L	0.0230	12.43	mg/L	0.115	0.93%
Mg 279.077†	10699.3	7.845	mg/L	0.1133	39.22	mg/L	0.567	1.44%
Mn 257.610†	27281.3	0.7634	mg/L	0.00859	3.817	mg/L	0.0429	1.13%
Mo 202.031†	22.5	0.00111	mg/L	0.000068	0.00553	mg/L	0.000340	6.15%
Na 589.592†	3724.5	0.3191	mg/L	0.00316	1.596	mg/L	0.0158	0.99%
Na 330.237†	2.3	0.2178	mg/L	0.11702	1.089	mg/L	0.5851	53.72%
Ni 231.604†	115.3	0.03084	mg/L	0.002231	0.1542	mg/L	0.01115	7.23%
Pb 220.353†	5307.7	0.7159	mg/L	0.00144	3.580	mg/L	0.0072	0.20%
Sb 206.836†	8.6	0.00295	mg/L	0.001921	0.01476	mg/L	0.009603	65.06%
Se 196.026†	5.5	0.00403	mg/L	0.003400	0.02015	mg/L	0.017001	84.39%
Si 288.158†	1680.5	0.8074	mg/L	0.01012	4.037	mg/L	0.0506	1.25%
Sn 189.927†	-1.1	0.00061	mg/L	0.000229	0.00306	mg/L	0.001145	37.41%
Sr 421.552†	65522.0	0.07660	mg/L	0.000688	0.3830	mg/L	0.00344	0.90%
Ti 334.903†	25156.4	1.211	mg/L	0.0120	6.056	mg/L	0.0599	0.99%
Tl 190.801†	-6.6	0.00065	mg/L	0.001485	0.00323	mg/L	0.007426	229.67%
V 292.402†	7803.5	0.06326	mg/L	0.000434	0.3163	mg/L	0.00217	0.69%
Zn 206.200†	1513.5	0.4233	mg/L	0.00768	2.117	mg/L	0.0384	1.81%

Sequence No.: 24
Sample ID: VR35 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 348
Date Collected: 11/19/2012 3:14:52 PM
Data Type: Original

BA 11/20/12

Nebulizer Parameters: VR35 D SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2572040.0	107.9	%	0.37				0.34%
ScR 361.383	337373.9	110.5	%	0.90				0.82%
Ag 328.068†	-214.1	-0.00131	mg/L	0.000106	-0.00655	mg/L	0.000530	8.09%
Al 308.215†	47910.3	28.67	mg/L	0.241	143.4	mg/L	1.21	0.84%
As 188.979†	-62.1	0.00229	mg/L	0.001562	0.01147	mg/L	0.007809	68.08%
B 249.677†	7.3	0.00098	mg/L	0.000585	0.00489	mg/L	0.002926	59.82%
Ba 233.527†	1270.2	0.2973	mg/L	0.00270	1.487	mg/L	0.0135	0.91%
Be 313.042†	599.6	0.00094	mg/L	0.000025	0.00471	mg/L	0.000125	2.66%
Ca 317.933†	82068.7	6.170	mg/L	0.0544	30.85	mg/L	0.272	0.88%
Cd 228.802†	26.8	0.00086	mg/L	0.000059	0.00429	mg/L	0.000294	6.86%
Co 228.616†	482.0	0.01121	mg/L	0.000173	0.05605	mg/L	0.000865	1.54%
Cr 267.716†	244.2	0.04161	mg/L	0.000650	0.2080	mg/L	0.00325	1.56%
Cu 324.752†	6035.2	0.02581	mg/L	0.000033	0.1290	mg/L	0.00017	0.13%
Fe 273.955†	45667.9	34.79	mg/L	0.193	173.9	mg/L	0.97	0.56%
K 766.490†	4163.4	2.182	mg/L	0.0101	10.91	mg/L	0.051	0.46%
Mg 279.077†	11324.7	8.305	mg/L	0.0627	41.53	mg/L	0.314	0.76%
Mn 257.610†	18414.6	0.5152	mg/L	0.00318	2.576	mg/L	0.0159	0.62%
Mo 202.031†	23.0	0.00113	mg/L	0.000163	0.00564	mg/L	0.000815	14.46%
Na 589.592†	4389.9	0.3761	mg/L	0.00404	1.881	mg/L	0.0202	1.07%
Na 330.237†	-0.2	0.2517	mg/L	0.03900	1.258	mg/L	0.1950	15.49%
Ni 231.604†	124.9	0.03340	mg/L	0.001200	0.1670	mg/L	0.00600	3.59%
Pb 220.353†	121.8	0.02178	mg/L	0.000303	0.1089	mg/L	0.00152	1.39%
Sb 206.836†	-11.1	-0.00329	mg/L	0.002440	-0.01647	mg/L	0.012198	74.06%
Se 196.026†	3.4	0.00249	mg/L	0.005853	0.01247	mg/L	0.029265	234.68%
Si 288.158†	1780.0	0.8552	mg/L	0.00556	4.276	mg/L	0.0278	0.65%
Sn 189.927†	-13.0	-0.00253	mg/L	0.000617	-0.01267	mg/L	0.003083	24.33%
Sr 421.552†	85276.3	0.09969	mg/L	0.000740	0.4984	mg/L	0.00370	0.74%
Ti 334.903†	28629.4	1.378	mg/L	0.0083	6.892	mg/L	0.0415	0.60%
Tl 190.801†	-9.9	-0.00093	mg/L	0.000769	-0.00463	mg/L	0.003847	83.11%
V 292.402†	7776.0	0.06294	mg/L	0.000232	0.3147	mg/L	0.00116	0.37%
Zn 206.200†	592.3	0.1656	mg/L	0.00197	0.8282	mg/L	0.00987	1.19%

Sequence No.: 25
Sample ID: VR35 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 349
Date Collected: 11/19/2012 3:18:50 PM
Data Type: Original

Nebulizer Parameters: VR35 D SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2587023.1	108.5	%	0.29				0.27%
ScR 361.383	336668.8	110.2	%	0.71				0.64%
Ag 328.068†	-162.7	-0.00099	mg/L	0.000200	-0.00497	mg/L	0.001000	20.13%
Al 308.215†	43692.4	26.15	mg/L	0.570	130.7	mg/L	2.85	2.18%
As 188.979†	-54.6	0.00641	mg/L	0.002243	0.03206	mg/L	0.011214	34.98%
B 249.677†	6.1	0.00082	mg/L	0.000798	0.00409	mg/L	0.003990	97.56%
Ba 233.527†	1027.8	0.2397	mg/L	0.00587	1.199	mg/L	0.0294	2.45%
Be 313.042†	577.5	0.00091	mg/L	0.000041	0.00453	mg/L	0.000207	4.57%
Ca 317.933†	85741.7	6.446	mg/L	0.1377	32.23	mg/L	0.688	2.14%

Cd 228.802†	10.6	0.00029 mg/L	0.000131	0.00144 mg/L	0.000653	45.39%
Co 228.616†	416.4	0.00930 mg/L	0.000231	0.04650 mg/L	0.001154	2.48%
Cr 267.716†	234.0	0.03989 mg/L	0.000323	0.1995 mg/L	0.00162	0.81%
Cu 324.752†	4937.3	0.02127 mg/L	0.000700	0.1064 mg/L	0.00350	3.29%
Fe 273.955†	43717.2	33.30 mg/L	0.879	166.5 mg/L	4.39	2.64%
K 766.490†	4562.5	2.392 mg/L	0.0415	11.96 mg/L	0.208	1.74%
Mg 279.077†	10394.6	7.622 mg/L	0.1686	38.11 mg/L	0.843	2.21%
Mn 257.610†	16905.2	0.4730 mg/L	0.01163	2.365 mg/L	0.0582	2.46%
Mo 202.031†	15.2	0.00072 mg/L	0.000294	0.00360 mg/L	0.001469	40.83%
Na 589.592†	4408.9	0.3777 mg/L	0.00313	1.889 mg/L	0.0156	0.83%
Na 330.237†	0.1	0.2842 mg/L	0.05702	1.421 mg/L	0.2851	20.06%
Ni 231.604†	117.5	0.03143 mg/L	0.000906	0.1571 mg/L	0.00453	2.88%
Pb 220.353†	130.2	0.02237 mg/L	0.001272	0.1119 mg/L	0.00636	5.69%
Sb 206.836†	-5.1	-0.00141 mg/L	0.001890	-0.00704 mg/L	0.009452	134.24%
Se 196.026†	1.6	0.00116 mg/L	0.004088	0.00578 mg/L	0.020438	353.86%
Si 288.158†	1797.2	0.8634 mg/L	0.02177	4.317 mg/L	0.1088	2.52%
Sn 189.927†	-14.4	-0.00287 mg/L	0.000839	-0.01435 mg/L	0.004196	29.24%
Sr 421.552†	78440.9	0.09170 mg/L	0.001911	0.4585 mg/L	0.00955	2.08%
Ti 334.903†	28423.4	1.368 mg/L	0.0313	6.842 mg/L	0.1567	2.29%
Tl 190.801†	-7.5	0.00000 mg/L	0.002523	0.00002 mg/L	0.012615	>999.9%
V 292.402†	7214.5	0.05831 mg/L	0.002187	0.2916 mg/L	0.01093	3.75%
Zn 206.200†	342.2	0.09569 mg/L	0.002878	0.4784 mg/L	0.01439	3.01%

Sequence No.: 26
Sample ID: VR35 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 350
Date Collected: 11/19/2012 3:22:51 PM
Data Type: Original

Nebulizer Parameters: VR35 A-L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2535246.6	106.3	%	0.49				0.46%
ScR 361.383	340039.8	111.3	%	0.75				0.67%
Ag 328.068†	3.1	0.00002	mg/L	0.000192	0.00057	mg/L	0.004809	838.78%
Al 308.215†	9063.6	5.424	mg/L	0.0776	135.6	mg/L	1.94	1.43%
As 188.979†	0.5	0.00730	mg/L	0.001648	0.1825	mg/L	0.04120	22.58%
B 249.677†	0.7	0.00009	mg/L	0.000769	0.00218	mg/L	0.019223	881.67%
Ba 233.527†	177.4	0.04117	mg/L	0.000510	1.029	mg/L	0.0128	1.24%
Be 313.042†	104.8	0.00016	mg/L	0.000010	0.00410	mg/L	0.000253	6.17%
Ca 317.933†	14382.6	1.081	mg/L	0.0127	27.03	mg/L	0.318	1.17%
Cd 228.802†	53.4	0.00177	mg/L	0.000182	0.04413	mg/L	0.004552	10.32%
Co 228.616†	100.6	0.00242	mg/L	0.000123	0.06059	mg/L	0.003081	5.08%
Cr 267.716†	56.9	0.00969	mg/L	0.000205	0.2422	mg/L	0.00512	2.11%
Cu 324.752†	1490.6	0.00633	mg/L	0.000034	0.1583	mg/L	0.00086	0.54%
Fe 273.955†	9283.3	7.071	mg/L	0.1152	176.8	mg/L	2.88	1.63%
K 766.490†	901.6	0.4726	mg/L	0.01446	11.82	mg/L	0.362	3.06%
Mg 279.077†	2160.3	1.584	mg/L	0.0116	39.60	mg/L	0.290	0.73%
Mn 257.610†	5703.0	0.1596	mg/L	0.00267	3.989	mg/L	0.0667	1.67%
Mo 202.031†	2.7	0.00013	mg/L	0.000204	0.00315	mg/L	0.005104	161.95%
Na 589.592†	974.4	0.08349	mg/L	0.003631	2.087	mg/L	0.0908	4.35%
Na 330.237†	7.2	0.2849	mg/L	0.04053	7.123	mg/L	1.0132	14.22%
Ni 231.604†	27.9	0.00747	mg/L	0.000777	0.1868	mg/L	0.01943	10.40%
Pb 220.353†	643.6	0.08724	mg/L	0.001195	2.181	mg/L	0.0299	1.37%
Sb 206.836†	-5.5	-0.00172	mg/L	0.002077	-0.04306	mg/L	0.051914	120.57%
Se 196.026†	2.0	0.00148	mg/L	0.001470	0.03702	mg/L	0.036757	99.30%
Si 288.158†	370.6	0.1780	mg/L	0.00251	4.451	mg/L	0.0626	1.41%
Sn 189.927†	-1.8	-0.00032	mg/L	0.000603	-0.00808	mg/L	0.015081	186.60%
Sr 421.552†	11187.6	0.01308	mg/L	0.000139	0.3270	mg/L	0.00348	1.06%
Ti 334.903†	5120.7	0.2465	mg/L	0.00328	6.164	mg/L	0.0820	1.33%
Tl 190.801†	-2.7	-0.00048	mg/L	0.001229	-0.01198	mg/L	0.030716	256.40%
V 292.402†	1517.8	0.01230	mg/L	0.000246	0.3076	mg/L	0.00616	2.00%
Zn 206.200†	331.5	0.09271	mg/L	0.001129	2.318	mg/L	0.0282	1.22%

Sequence No.: 27
Sample ID: VR35 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 351
Date Collected: 11/19/2012 3:26:51 PM
Data Type: Original

Nebulizer Parameters: VR35 A SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2602368.0	109.1	%	0.33				0.30%
ScR 361.383	337051.1	110.4	%	0.95				0.86%
Ag 328.068†	-67.1	-0.00040	mg/L	0.000049	-0.00200	mg/L	0.000246	12.33%
Al 308.215†	44883.3	26.86	mg/L	0.230	134.3	mg/L	1.15	0.86%
As 188.979†	2.6	0.03597	mg/L	0.002568	0.1799	mg/L	0.01284	7.14%
B 249.677†	6.2	0.00083	mg/L	0.000728	0.00413	mg/L	0.003641	88.23%
Ba 233.527†	861.3	0.1998	mg/L	0.00249	0.9989	mg/L	0.01247	1.25%
Be 313.042†	574.9	0.00090	mg/L	0.000021	0.00452	mg/L	0.000103	2.27%
Ca 317.933†	70082.9	5.269	mg/L	0.0433	26.35	mg/L	0.217	0.82%
Cd 228.802†	260.3	0.00860	mg/L	0.000088	0.04300	mg/L	0.000438	1.02%
Co 228.616†	436.6	0.01018	mg/L	0.000241	0.05090	mg/L	0.001207	2.37%
Cr 267.716†	232.9	0.03973	mg/L	0.001169	0.1986	mg/L	0.00585	2.94%
Cu 324.752†	7477.4	0.03174	mg/L	0.000634	0.1587	mg/L	0.00317	2.00%
Fe 273.955†	45810.0	34.89	mg/L	0.361	174.5	mg/L	1.80	1.03%
K 766.490†	4619.5	2.421	mg/L	0.0397	12.11	mg/L	0.198	1.64%
Mg 279.077†	10622.6	7.789	mg/L	0.0835	38.94	mg/L	0.417	1.07%
Mn 257.610†	28205.8	0.7892	mg/L	0.00716	3.946	mg/L	0.0358	0.91%
Mo 202.031†	15.4	0.00074	mg/L	0.000150	0.00371	mg/L	0.000751	20.25%
Na 589.592†	3430.2	0.2939	mg/L	0.00459	1.469	mg/L	0.0229	1.56%
Na 330.237†	0.5	0.1465	mg/L	0.23392	0.7324	mg/L	1.16958	159.68%
Ni 231.604†	117.8	0.03150	mg/L	0.000807	0.1575	mg/L	0.00404	2.56%
Pb 220.353†	2920.1	0.3962	mg/L	0.00650	1.981	mg/L	0.0325	1.64%
Sb 206.836†	2.2	0.00090	mg/L	0.000754	0.00452	mg/L	0.003771	83.46%
Se 196.026†	8.0	0.00587	mg/L	0.000781	0.02935	mg/L	0.003903	13.30%
Si 288.158†	1813.6	0.8713	mg/L	0.00427	4.356	mg/L	0.0214	0.49%
Sn 189.927†	-2.7	0.00012	mg/L	0.000375	0.00059	mg/L	0.001875	315.26%
Sr 421.552†	54999.9	0.06430	mg/L	0.000575	0.3215	mg/L	0.00288	0.89%
Ti 334.903†	25242.0	1.215	mg/L	0.0107	6.077	mg/L	0.0537	0.88%
Tl 190.801†	-6.4	0.00064	mg/L	0.000411	0.00319	mg/L	0.002053	64.31%
V 292.402†	7037.9	0.05692	mg/L	0.001367	0.2846	mg/L	0.00684	2.40%
Zn 206.200†	1624.0	0.4542	mg/L	0.00342	2.271	mg/L	0.0171	0.75%

Sequence No.: 28
Sample ID: VR35 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 352
Date Collected: 11/19/2012 3:30:50 PM
Data Type: Original

Nebulizer Parameters: VR35 ADUP SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 ADUP SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2587524.4	108.5	%	0.45				0.42%
ScR 361.383	338427.2	110.8	%	1.05				0.94%
Ag 328.068†	-76.3	-0.00046	mg/L	0.000142	-0.00228	mg/L	0.000708	31.02%
Al 308.215†	45876.6	27.46	mg/L	0.364	137.3	mg/L	1.82	1.33%
As 188.979†	0.4	0.03441	mg/L	0.000372	0.1721	mg/L	0.00186	1.08%
B 249.677†	5.7	0.00076	mg/L	0.000490	0.00379	mg/L	0.002452	64.68%
Ba 233.527†	900.0	0.2086	mg/L	0.00043	1.043	mg/L	0.0022	0.21%
Be 313.042†	586.0	0.00092	mg/L	0.000018	0.00461	mg/L	0.000091	1.98%
Ca 317.933†	74454.7	5.598	mg/L	0.0641	27.99	mg/L	0.321	1.15%
Cd 228.802†	252.3	0.00831	mg/L	0.000370	0.04157	mg/L	0.001848	4.44%
Co 228.616†	434.8	0.01011	mg/L	0.000485	0.05057	mg/L	0.002424	4.79%
Cr 267.716†	237.0	0.04049	mg/L	0.000585	0.2024	mg/L	0.00293	1.45%
Cu 324.752†	7329.5	0.03123	mg/L	0.000994	0.1562	mg/L	0.00497	3.18%
Fe 273.955†	48742.0	37.13	mg/L	0.446	185.6	mg/L	2.23	1.20%
K 766.490†	4693.4	2.460	mg/L	0.0335	12.30	mg/L	0.168	1.36%
Mg 279.077†	10948.1	8.027	mg/L	0.0795	40.14	mg/L	0.397	0.99%
Mn 257.610†	29188.6	0.8167	mg/L	0.01045	4.083	mg/L	0.0523	1.28%
Mo 202.031†	15.9	0.00076	mg/L	0.000199	0.00381	mg/L	0.000997	26.12%
Na 589.592†	3492.3	0.2992	mg/L	0.00181	1.496	mg/L	0.0090	0.60%
Na 330.237†	2.5	0.2130	mg/L	0.07938	1.065	mg/L	0.3969	37.27%
Ni 231.604†	120.5	0.03224	mg/L	0.000533	0.1612	mg/L	0.00266	1.65%
Pb 220.353†	2862.6	0.3886	mg/L	0.01178	1.943	mg/L	0.0589	3.03%
Sb 206.836†	3.9	0.00141	mg/L	0.000538	0.00705	mg/L	0.002691	38.18%
Se 196.026†	5.0	0.00365	mg/L	0.002683	0.01827	mg/L	0.013413	73.40%
Si 288.158†	1501.4	0.7215	mg/L	0.00994	3.607	mg/L	0.0497	1.38%
Sn 189.927†	-5.1	-0.00048	mg/L	0.000358	-0.00240	mg/L	0.001790	74.60%
Sr 421.552†	64436.0	0.07533	mg/L	0.000829	0.3766	mg/L	0.00415	1.10%
Ti 334.903†	25064.6	1.207	mg/L	0.0164	6.034	mg/L	0.0822	1.36%
Tl 190.801†	-5.7	0.00117	mg/L	0.002038	0.00586	mg/L	0.010191	173.80%
V 292.402†	7240.7	0.05854	mg/L	0.001889	0.2927	mg/L	0.00944	3.23%
Zn 206.200†	1639.5	0.4585	mg/L	0.00470	2.293	mg/L	0.0235	1.02%

Sequence No.: 29
Sample ID: VR35 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 353
Date Collected: 11/19/2012 3:34:49 PM
Data Type: Original

Nebulizer Parameters: VR35 ASPK SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 ASPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2576341.7	108.0	%	0.52				0.48%
ScR 361.383	340969.0	111.7	%	1.55				1.39%
Ag 328.068†	32447.5	0.2016	mg/L	0.00197	1.008	mg/L	0.0098	0.98%
Al 308.215†	46203.1	27.65	mg/L	0.289	138.2	mg/L	1.45	1.05%
As 188.979†	1358.9	0.8366	mg/L	0.00492	4.183	mg/L	0.0246	0.59%
B 249.677†	11.5	0.00113	mg/L	0.000162	0.00567	mg/L	0.000810	14.27%
Ba 233.527†	4225.1	1.002	mg/L	0.0166	5.011	mg/L	0.0829	1.65%
Be 313.042†	122377.7	0.1981	mg/L	0.00222	0.9907	mg/L	0.01112	1.12%
Ca 317.933†	124877.8	9.389	mg/L	0.1085	46.94	mg/L	0.543	1.16%
Cd 228.802†	6570.8	0.2196	mg/L	0.00086	1.098	mg/L	0.0043	0.39%
Co 228.616†	7401.4	0.2177	mg/L	0.00107	1.088	mg/L	0.0054	0.49%
Cr 267.716†	1395.2	0.2349	mg/L	0.00376	1.174	mg/L	0.0188	1.60%
Cu 324.752†	58460.4	0.2398	mg/L	0.00219	1.199	mg/L	0.0109	0.91%
Fe 273.955†	46009.2	35.04	mg/L	0.382	175.2	mg/L	1.91	1.09%
K 766.490†	11501.1	6.029	mg/L	0.0710	30.14	mg/L	0.355	1.18%
Mg 279.077†	15703.3	11.52	mg/L	0.180	57.62	mg/L	0.898	1.56%
Mn 257.610†	37665.9	1.054	mg/L	0.0098	5.270	mg/L	0.0491	0.93%
Mo 202.031†	24.5	0.00116	mg/L	0.000182	0.00578	mg/L	0.000909	15.71%
Na 589.592†	48774.7	4.179	mg/L	0.0483	20.89	mg/L	0.242	1.16%
Na 330.237†	119.9	4.336	mg/L	0.1567	21.68	mg/L	0.783	3.61%
Ni 231.604†	843.5	0.2253	mg/L	0.00423	1.126	mg/L	0.0211	1.88%
Pb 220.353†	9111.3	1.226	mg/L	0.0038	6.129	mg/L	0.0188	0.31%
Sb 206.836†	10.5	0.00147	mg/L	0.001221	0.00735	mg/L	0.006106	83.03%
Se 196.026†	1095.6	0.8109	mg/L	0.00340	4.055	mg/L	0.0170	0.42%
Si 288.158†	1738.1	0.8363	mg/L	0.01145	4.181	mg/L	0.0573	1.37%
Sn 189.927†	-12.7	-0.00205	mg/L	0.001087	-0.01026	mg/L	0.005433	52.95%
Sr 421.552†	238491.5	0.2788	mg/L	0.00287	1.394	mg/L	0.0144	1.03%
Ti 334.903†	23776.9	1.145	mg/L	0.0123	5.723	mg/L	0.0616	1.08%
Tl 190.801†	1788.0	0.7836	mg/L	0.00315	3.918	mg/L	0.0157	0.40%
V 292.402†	30997.6	0.2571	mg/L	0.00228	1.286	mg/L	0.0114	0.89%
Zn 206.200†	2335.9	0.6533	mg/L	0.01051	3.267	mg/L	0.0525	1.61%

Sequence No.: 30 22222
Sample ID: ~~VR35 APOST SWC~~
Analyst: BA
Dilution: 5.000000X

BA 11/20/12

Autosampler Location: 354
Date Collected: 11/19/2012 3:38:49 PM
Data Type: Original

Nebulizer Parameters: VR35 APOST SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2535215.5	106.3	%	0.86				0.81%
ScR 361.383	338896.0	111.0	%	1.17				1.05%
Ag 328.068†	81964.8	0.5091	mg/L	0.00571	2.546	mg/L	0.0285	1.12%
Al 308.215†	47275.2	28.29	mg/L	0.327	141.4	mg/L	1.63	1.16%
As 188.979†	3457.5	2.080	mg/L	0.0288	10.40	mg/L	0.144	1.38%
B 249.677†	11.0	0.00045	mg/L	0.000784	0.00225	mg/L	0.003920	174.21%
Ba 233.527†	9069.0	2.158	mg/L	0.0296	10.79	mg/L	0.148	1.37%
Be 313.042†	300469.4	0.4865	mg/L	0.00488	2.433	mg/L	0.0244	1.00%
Ca 317.933†	194236.9	14.60	mg/L	0.169	73.02	mg/L	0.845	1.16%
Cd 228.802†	15667.8	0.5232	mg/L	0.00678	2.616	mg/L	0.0339	1.30%
Co 228.616†	17390.8	0.5150	mg/L	0.00686	2.575	mg/L	0.0343	1.33%
Cr 267.716†	3132.5	0.5266	mg/L	0.00668	2.633	mg/L	0.0334	1.27%
Cu 324.752†	136458.7	0.5580	mg/L	0.00595	2.790	mg/L	0.0297	1.07%
Fe 273.955†	47196.7	35.95	mg/L	0.329	179.7	mg/L	1.64	0.91%
K 766.490†	22677.2	11.89	mg/L	0.130	59.43	mg/L	0.650	1.09%
Mg 279.077†	23687.8	17.39	mg/L	0.195	86.96	mg/L	0.976	1.12%
Mn 257.610†	44091.3	1.234	mg/L	0.0135	6.169	mg/L	0.0677	1.10%
Mo 202.031†	34.4	0.00160	mg/L	0.000164	0.00801	mg/L	0.000821	10.24%
Na 589.592†	115332.7	9.881	mg/L	0.1187	49.41	mg/L	0.594	1.20%
Na 330.237†	283.4	10.11	mg/L	0.114	50.55	mg/L	0.568	1.12%
Ni 231.604†	1921.4	0.5131	mg/L	0.00720	2.565	mg/L	0.0360	1.40%
Pb 220.353†	17522.6	2.353	mg/L	0.0188	11.76	mg/L	0.094	0.80%
Sb 206.836†	8.6	-0.00211	mg/L	0.001067	-0.01056	mg/L	0.005336	50.55%
Se 196.026†	2767.1	2.048	mg/L	0.0383	10.24	mg/L	0.191	1.87%
Si 288.158†	1775.5	0.8561	mg/L	0.01345	4.280	mg/L	0.0672	1.57%
Sn 189.927†	-18.7	-0.00297	mg/L	0.000604	-0.01485	mg/L	0.003022	20.35%
Sr 421.552†	469929.2	0.5494	mg/L	0.00596	2.747	mg/L	0.0298	1.09%
Ti 334.903†	24801.2	1.194	mg/L	0.0125	5.968	mg/L	0.0627	1.05%
Tl 190.801†	4541.4	1.985	mg/L	0.0274	9.927	mg/L	0.1370	1.38%
V 292.402†	67705.0	0.5637	mg/L	0.00500	2.818	mg/L	0.0250	0.89%
Zn 206.200†	3308.3	0.9253	mg/L	0.00973	4.626	mg/L	0.0487	1.05%

Sequence No.: 31
Sample ID: VR35 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 355
Date Collected: 11/19/2012 3:42:50 PM
Data Type: Original

Nebulizer Parameters: VR35 MB1SPK SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2557184.4	107.2	%	0.53				0.50%
ScR 361.383	337043.8	110.4	%	1.14				1.03%
Ag 328.068†	80241.0	0.4984	mg/L	0.00407	0.9968	mg/L	0.00815	0.82%
Al 308.215†	3281.3	1.957	mg/L	0.0424	3.914	mg/L	0.0848	2.17%
As 188.979†	3295.6	1.950	mg/L	0.0223	3.901	mg/L	0.0445	1.14%
B 249.677†	4.5	-0.00038	mg/L	0.000822	-0.00075	mg/L	0.001644	218.39%
Ba 233.527†	8385.6	2.000	mg/L	0.0365	4.001	mg/L	0.0729	1.82%
Be 313.042†	303016.6	0.4907	mg/L	0.00890	0.9813	mg/L	0.01779	1.81%
Ca 317.933†	126150.6	9.484	mg/L	0.1662	18.97	mg/L	0.332	1.75%
Cd 228.802†	14738.9	0.4923	mg/L	0.00523	0.9847	mg/L	0.01047	1.06%
Co 228.616†	16391.3	0.4880	mg/L	0.00509	0.9760	mg/L	0.01018	1.04%
Cr 267.716†	2968.3	0.4984	mg/L	0.00936	0.9968	mg/L	0.01872	1.88%
Cu 324.752†	120911.3	0.4934	mg/L	0.00479	0.9868	mg/L	0.00957	0.97%
Fe 273.955†	2577.4	1.960	mg/L	0.0360	3.920	mg/L	0.0721	1.84%
K 766.490†	18226.8	9.554	mg/L	0.1885	19.11	mg/L	0.377	1.97%
Mg 279.077†	13432.4	9.873	mg/L	0.1859	19.75	mg/L	0.372	1.88%
Mn 257.610†	17483.8	0.4894	mg/L	0.00878	0.9788	mg/L	0.01755	1.79%
Mo 202.031†	21.4	0.00098	mg/L	0.000179	0.00197	mg/L	0.000359	18.21%
Na 589.592†	113855.9	9.755	mg/L	0.2129	19.51	mg/L	0.426	2.18%
Na 330.237†	284.6	10.02	mg/L	0.240	20.04	mg/L	0.480	2.39%
Ni 231.604†	1858.4	0.4963	mg/L	0.00819	0.9925	mg/L	0.01638	1.65%
Pb 220.353†	14071.6	1.886	mg/L	0.0242	3.771	mg/L	0.0484	1.28%
Sb 206.836†	6.9	-0.00311	mg/L	0.000865	-0.00622	mg/L	0.001730	27.82%
Se 196.026†	2641.6	1.955	mg/L	0.0239	3.911	mg/L	0.0477	1.22%
Si 288.158†	-2.8	0.00169	mg/L	0.002168	0.00339	mg/L	0.004336	128.05%
Sn 189.927†	-18.8	-0.00382	mg/L	0.000956	-0.00765	mg/L	0.001911	24.98%
Sr 421.552†	423058.9	0.4946	mg/L	0.00938	0.9891	mg/L	0.01875	1.90%
Ti 334.903†	26.6	0.00073	mg/L	0.000174	0.00145	mg/L	0.000348	23.96%
Tl 190.801†	4357.1	1.902	mg/L	0.0262	3.803	mg/L	0.0523	1.38%
V 292.402†	57854.9	0.4834	mg/L	0.00429	0.9667	mg/L	0.00857	0.89%
Zn 206.200†	1773.3	0.4960	mg/L	0.00805	0.9920	mg/L	0.01610	1.62%

Sequence No.: 32
Sample ID: CV 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 3:46:51 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2528422.6	106.0	%	0.36				0.34%
ScR 361.383	326042.9	106.8	%	0.42				0.39%
Ag 328.068†	163870.1	1.018	mg/L	0.0098	1.018	mg/L	0.0098	0.96%
Al 308.215†	3308.7	1.947	mg/L	0.0053	1.947	mg/L	0.0053	0.27%
As 188.979†	3343.4	2.003	mg/L	0.0061	2.003	mg/L	0.0061	0.31%
B 249.677†	7035.9	0.9701	mg/L	0.00298	0.9701	mg/L	0.00298	0.31%
Ba 233.527†	4173.0	0.9952	mg/L	0.00211	0.9952	mg/L	0.00211	0.21%
Be 313.042†	594785.7	0.9631	mg/L	0.00444	0.9631	mg/L	0.00444	0.46%
Ca 317.933†	25109.1	1.888	mg/L	0.0138	1.888	mg/L	0.0138	0.73%
Cd 228.802†	29504.0	0.9984	mg/L	0.00822	0.9984	mg/L	0.00822	0.82%
Co 228.616†	33316.2	0.9904	mg/L	0.00943	0.9904	mg/L	0.00943	0.95%
Cr 267.716†	5914.0	0.9946	mg/L	0.00252	0.9946	mg/L	0.00252	0.25%
Cu 324.752†	239881.4	0.9784	mg/L	0.00105	0.9784	mg/L	0.00105	0.11%
Fe 273.955†	2593.6	1.969	mg/L	0.0072	1.969	mg/L	0.0072	0.37%
K 766.490†	36940.2	19.36	mg/L	0.086	19.36	mg/L	0.086	0.45%
Mg 279.077†	2635.9	1.944	mg/L	0.0110	1.944	mg/L	0.0110	0.57%
Mn 257.610†	34123.0	0.9549	mg/L	0.00430	0.9549	mg/L	0.00430	0.45%
Mo 202.031†	18458.3	0.9594	mg/L	0.00909	0.9594	mg/L	0.00909	0.95%
Na 589.592†	584826.1	50.11	mg/L	0.283	50.11	mg/L	0.283	0.56%
Na 330.237†	1415.0	50.52	mg/L	0.270	50.52	mg/L	0.270	0.54%
Ni 231.604†	3697.5	0.9893	mg/L	0.00208	0.9893	mg/L	0.00208	0.21%
Pb 220.353†	14403.1	1.930	mg/L	0.0160	1.930	mg/L	0.0160	0.83%
Sb 206.836†	6405.9	2.040	mg/L	0.0069	2.040	mg/L	0.0069	0.34%
Se 196.026†	2652.6	1.963	mg/L	0.0075	1.963	mg/L	0.0075	0.38%
Si 288.158†	4116.9	1.975	mg/L	0.0096	1.975	mg/L	0.0096	0.48%
Sn 189.927†	3603.1	0.9688	mg/L	0.00472	0.9688	mg/L	0.00472	0.49%
Sr 421.552†	839638.5	0.9816	mg/L	0.00451	0.9816	mg/L	0.00451	0.46%
Ti 334.903†	19953.2	0.9598	mg/L	0.00511	0.9598	mg/L	0.00511	0.53%
Tl 190.801†	4509.2	1.964	mg/L	0.0086	1.964	mg/L	0.0086	0.44%
V 292.402†	120357.7	1.005	mg/L	0.0080	1.005	mg/L	0.0080	0.79%
Zn 206.200†	3633.8	1.016	mg/L	0.0032	1.016	mg/L	0.0032	0.31%

Sequence No.: 33
Sample ID: CB 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 3:51:57 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2548703.5	106.9	%	0.37				0.35%
ScR 361.383	332069.3	108.7	%	0.28				0.26%
Ag 328.068†	10.0	0.00006	mg/L	0.000128	0.00006	mg/L	0.000128	205.73%
Al 308.215†	-2.0	-0.00122	mg/L	0.010177	-0.00122	mg/L	0.010177	832.37%
As 188.979†	1.7	0.00097	mg/L	0.000902	0.00097	mg/L	0.000902	93.25%
B 249.677†	5.4	0.00074	mg/L	0.000384	0.00074	mg/L	0.000384	51.74%
Ba 233.527†	1.0	0.00023	mg/L	0.000928	0.00023	mg/L	0.000928	399.35%
Be 313.042†	62.5	0.00010	mg/L	0.000021	0.00010	mg/L	0.000021	20.96%
Ca 317.933†	-2.0	-0.00015	mg/L	0.000209	-0.00015	mg/L	0.000209	136.65%
Cd 228.802†	-10.4	-0.00036	mg/L	0.000065	-0.00036	mg/L	0.000065	18.14%
Co 228.616†	5.3	0.00016	mg/L	0.000105	0.00016	mg/L	0.000105	65.91%
Cr 267.716†	7.6	0.00127	mg/L	0.000420	0.00127	mg/L	0.000420	32.99%
Cu 324.752†	-39.0	-0.00016	mg/L	0.000099	-0.00016	mg/L	0.000099	62.64%
Fe 273.955†	5.0	0.00378	mg/L	0.001001	0.00378	mg/L	0.001001	26.51%
K 766.490†	-57.2	-0.03000	mg/L	0.009577	-0.03000	mg/L	0.009577	31.92%
Mg 279.077†	-10.6	-0.00775	mg/L	0.003130	-0.00775	mg/L	0.003130	40.36%
Mn 257.610†	2.6	0.00007	mg/L	0.000058	0.00007	mg/L	0.000058	78.00%
Mo 202.031†	8.1	0.00042	mg/L	0.000270	0.00042	mg/L	0.000270	64.13%
Na 589.592†	278.5	0.02386	mg/L	0.002622	0.02386	mg/L	0.002622	10.99%
Na 330.237†	7.0	0.2515	mg/L	0.27026	0.2515	mg/L	0.27026	107.48%
Ni 231.604†	4.8	0.00129	mg/L	0.000068	0.00129	mg/L	0.000068	5.22%
Pb 220.353†	-0.6	-0.00008	mg/L	0.000224	-0.00008	mg/L	0.000224	280.14%
Sb 206.836†	3.6	0.00113	mg/L	0.001309	0.00113	mg/L	0.001309	115.59%
Se 196.026†	7.5	0.00554	mg/L	0.001208	0.00554	mg/L	0.001208	21.82%
Si 288.158†	3.1	0.00147	mg/L	0.001072	0.00147	mg/L	0.001072	73.07%
Sn 189.927†	0.2	0.00006	mg/L	0.000525	0.00006	mg/L	0.000525	895.13%
Sr 421.552†	94.6	0.00011	mg/L	0.000024	0.00011	mg/L	0.000024	21.41%
Ti 334.903†	-6.7	-0.00032	mg/L	0.000694	-0.00032	mg/L	0.000694	214.50%
Tl 190.801†	2.3	0.00102	mg/L	0.000661	0.00102	mg/L	0.000661	64.87%
V 292.402†	12.7	0.00011	mg/L	0.000077	0.00011	mg/L	0.000077	69.44%
Zn 206.200†	-1.1	-0.00030	mg/L	0.000419	-0.00030	mg/L	0.000419	141.85%

Sequence No.: 34
Sample ID: VR35 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 356
Date Collected: 11/19/2012 3:56:12 PM
Data Type: Original

Nebulizer Parameters: VR35 E SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2559429.9	107.3	%	0.53				0.50%
ScR 361.383	339826.8	111.3	%	2.20				1.98%
Ag 328.068†	-88.8	-0.00053	mg/L	0.000117	-0.00267	mg/L	0.000584	21.90%
Al 308.215†	31290.2	18.73	mg/L	0.496	93.63	mg/L	2.482	2.65%
As 188.979†	-11.0	0.02562	mg/L	0.001768	0.1281	mg/L	0.00884	6.90%
B 249.677†	11.2	0.00152	mg/L	0.000438	0.00760	mg/L	0.002190	28.80%
Ba 233.527†	617.9	0.1420	mg/L	0.00297	0.7098	mg/L	0.01485	2.09%
Be 313.042†	505.1	0.00079	mg/L	0.000033	0.00396	mg/L	0.000164	4.14%
Ca 317.933†	71155.6	5.350	mg/L	0.1488	26.75	mg/L	0.744	2.78%
Cd 228.802†	142.0	0.00461	mg/L	0.000190	0.02306	mg/L	0.000948	4.11%
Co 228.616†	449.7	0.01075	mg/L	0.000274	0.05376	mg/L	0.001372	2.55%
Cr 267.716†	234.9	0.04006	mg/L	0.001088	0.2003	mg/L	0.00544	2.72%
Cu 324.752†	5837.8	0.02500	mg/L	0.000206	0.1250	mg/L	0.00103	0.82%
Fe 273.955†	43767.5	33.34	mg/L	0.920	166.7	mg/L	4.60	2.76%
K 766.490†	6140.0	3.218	mg/L	0.0948	16.09	mg/L	0.474	2.94%
Mg 279.077†	10027.9	7.353	mg/L	0.1418	36.76	mg/L	0.709	1.93%
Mn 257.610†	26463.5	0.7404	mg/L	0.02037	3.702	mg/L	0.1018	2.75%
Mo 202.031†	16.0	0.00077	mg/L	0.000140	0.00387	mg/L	0.000699	18.06%
Na 589.592†	2881.9	0.2469	mg/L	0.00493	1.235	mg/L	0.0247	2.00%
Na 330.237†	4.0	0.3099	mg/L	0.11939	1.549	mg/L	0.5970	38.53%
Ni 231.604†	105.7	0.02828	mg/L	0.001272	0.1414	mg/L	0.00636	4.50%
Pb 220.353†	1982.7	0.2687	mg/L	0.00300	1.344	mg/L	0.0150	1.11%
Sb 206.836†	2.7	0.00102	mg/L	0.002348	0.00509	mg/L	0.011742	230.65%
Se 196.026†	1.0	0.00067	mg/L	0.003119	0.00335	mg/L	0.015594	465.19%
Si 288.158†	1407.5	0.6763	mg/L	0.01584	3.382	mg/L	0.0792	2.34%
Sn 189.927†	-5.1	-0.00053	mg/L	0.000446	-0.00265	mg/L	0.002228	83.92%
Sr 421.552†	54777.8	0.06404	mg/L	0.001666	0.3202	mg/L	0.00833	2.60%
Ti 334.903†	23559.8	1.134	mg/L	0.0291	5.671	mg/L	0.1455	2.57%
Tl 190.801†	-5.4	0.00092	mg/L	0.000455	0.00458	mg/L	0.002275	49.66%
V 292.402†	7576.9	0.06150	mg/L	0.000457	0.3075	mg/L	0.00229	0.74%
Zn 206.200†	993.6	0.2779	mg/L	0.00610	1.389	mg/L	0.0305	2.19%

Sequence No.: 35
Sample ID: VR35 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 357
Date Collected: 11/19/2012 4:00:14 PM
Data Type: Original

Nebulizer Parameters: VR35 F SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2586105.6	108.4	%	0.65				0.60%
ScR 361.383	341519.5	111.8	%	1.72				1.54%
Ag 328.068†	131.5	0.00083	mg/L	0.000075	0.00417	mg/L	0.000376	9.01%
Al 308.215†	34825.3	20.84	mg/L	0.489	104.2	mg/L	2.45	2.35%
As 188.979†	5.2	0.03837	mg/L	0.002197	0.1919	mg/L	0.01099	5.73%
B 249.677†	24.6	0.00337	mg/L	0.000542	0.01686	mg/L	0.002708	16.06%
Ba 233.527†	2351.0	0.5557	mg/L	0.01055	2.778	mg/L	0.0527	1.90%
Be 313.042†	537.7	0.00084	mg/L	0.000028	0.00422	mg/L	0.000141	3.34%
Ca 317.933†	160703.7	12.08	mg/L	0.281	60.41	mg/L	1.407	2.33%
Cd 228.802†	1150.1	0.03910	mg/L	0.000037	0.1955	mg/L	0.00018	0.09%
Co 228.616†	502.0	0.01206	mg/L	0.000233	0.06028	mg/L	0.001167	1.94%
Cr 267.716†	236.7	0.03995	mg/L	0.000179	0.1998	mg/L	0.00090	0.45%
Cu 324.752†	19883.4	0.08221	mg/L	0.000186	0.4111	mg/L	0.00093	0.23%
Fe 273.955†	42066.8	32.04	mg/L	0.671	160.2	mg/L	3.36	2.10%
K 766.490†	5706.2	2.991	mg/L	0.0717	14.96	mg/L	0.358	2.40%
Mg 279.077†	11207.5	8.220	mg/L	0.1177	41.10	mg/L	0.588	1.43%
Mn 257.610†	99357.2	2.780	mg/L	0.0611	13.90	mg/L	0.306	2.20%
Mo 202.031†	36.9	0.00178	mg/L	0.000137	0.00892	mg/L	0.000683	7.66%
Na 589.592†	3449.5	0.2955	mg/L	0.00364	1.478	mg/L	0.0182	1.23%
Na 330.237†	17.8	0.4234	mg/L	0.18992	2.117	mg/L	0.9496	44.86%
Ni 231.604†	116.6	0.03119	mg/L	0.000605	0.1559	mg/L	0.00302	1.94%
Pb 220.353†	16352.0	2.194	mg/L	0.0029	10.97	mg/L	0.015	0.13%
Sb 206.836†	27.2	0.00891	mg/L	0.001010	0.04453	mg/L	0.005048	11.34%
Se 196.026†	8.1	0.00597	mg/L	0.004904	0.02983	mg/L	0.024521	82.21%
Si 288.158†	1007.0	0.4844	mg/L	0.00993	2.422	mg/L	0.0496	2.05%
Sn 189.927†	8.0	0.00390	mg/L	0.000956	0.01949	mg/L	0.004778	24.52%
Sr 421.552†	122772.3	0.1435	mg/L	0.00328	0.7176	mg/L	0.01642	2.29%
Ti 334.903†	26134.1	1.258	mg/L	0.0305	6.290	mg/L	0.1525	2.42%
Tl 190.801†	-6.8	0.00013	mg/L	0.000274	0.00067	mg/L	0.001372	204.50%
V 292.402†	7313.7	0.05960	mg/L	0.000247	0.2980	mg/L	0.00123	0.41%
Zn 206.200†	5438.6	1.521	mg/L	0.0248	7.605	mg/L	0.1238	1.63%

Sequence No.: 36
Sample ID: VR35 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 358
Date Collected: 11/19/2012 4:04:13 PM
Data Type: Original

Nebulizer Parameters: VR35 G SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2577614.2	108.1	%	0.23				0.21%
ScR 361.383	340958.1	111.7	%	2.07				1.85%
Ag 328.068†	-130.2	-0.00077	mg/L	0.000121	-0.00386	mg/L	0.000604	15.62%
Al 308.215†	112479.6	67.32	mg/L	1.151	336.6	mg/L	5.75	1.71%
As 188.979†	134.5	0.1476	mg/L	0.00287	0.7379	mg/L	0.01434	1.94%
B 249.677†	62.5	0.00852	mg/L	0.000464	0.04258	mg/L	0.002322	5.45%
Ba 233.527†	4949.2	1.163	mg/L	0.0210	5.816	mg/L	0.1050	1.81%
Be 313.042†	1597.4	0.00253	mg/L	0.000094	0.01267	mg/L	0.000470	3.71%
Ca 317.933†	259820.3	19.53	mg/L	0.365	97.67	mg/L	1.827	1.87%
Cd 228.802†	1222.5	0.04044	mg/L	0.000112	0.2022	mg/L	0.00056	0.28%
Co 228.616†	1822.8	0.04811	mg/L	0.000165	0.2406	mg/L	0.00082	0.34%
Cr 267.716†	782.5	0.1330	mg/L	0.00192	0.6652	mg/L	0.00959	1.44%
Cu 324.752†	31747.9	0.1336	mg/L	0.00021	0.6679	mg/L	0.00107	0.16%
Fe 273.955†	140626.9	107.1	mg/L	2.17	535.6	mg/L	10.87	2.03%
K 766.490†	18669.3	9.786	mg/L	0.1793	48.93	mg/L	0.896	1.83%
Mg 279.077†	32665.1	23.95	mg/L	0.446	119.8	mg/L	2.23	1.86%
Mn 257.610†	194655.6	5.446	mg/L	0.1034	27.23	mg/L	0.517	1.90%
Mo 202.031†	77.0	0.00378	mg/L	0.000028	0.01891	mg/L	0.000141	0.74%
Na 589.592†	7163.6	0.6138	mg/L	0.00884	3.069	mg/L	0.0442	1.44%
Na 330.237†	15.7	0.4896	mg/L	0.12894	2.448	mg/L	0.6447	26.34%
Ni 231.604†	474.1	0.1268	mg/L	0.00320	0.6341	mg/L	0.01599	2.52%
Pb 220.353†	14560.6	1.962	mg/L	0.0088	9.811	mg/L	0.0441	0.45%
Sb 206.836†	30.4	0.00928	mg/L	0.000816	0.04641	mg/L	0.004082	8.80%
Se 196.026†	11.2	0.00818	mg/L	0.001164	0.04091	mg/L	0.005818	14.22%
Si 288.158†	1412.8	0.6810	mg/L	0.01408	3.405	mg/L	0.0704	2.07%
Sn 189.927†	-10.9	-0.00009	mg/L	0.001120	-0.00046	mg/L	0.005599	>999.9%
Sr 421.552†	178032.4	0.2081	mg/L	0.00358	1.041	mg/L	0.0179	1.72%
Ti 334.903†	50236.9	2.418	mg/L	0.0431	12.09	mg/L	0.215	1.78%
Tl 190.801†	-25.1	-0.00030	mg/L	0.001397	-0.00152	mg/L	0.006985	459.43%
V 292.402†	14840.2	0.1197	mg/L	0.00021	0.5986	mg/L	0.00104	0.17%
Zn 206.200†	6756.5	1.890	mg/L	0.0348	9.448	mg/L	0.1741	1.84%

Sequence No.: 37
Sample ID: VR35 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 359
Date Collected: 11/19/2012 4:08:13 PM
Data Type: Original

Nebulizer Parameters: VR35 H SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2557563.5	107.2	%	0.66				0.62%
ScR 361.383	338220.5	110.8	%	0.95				0.86%
Ag 328.068†	-82.3	-0.00049	mg/L	0.000089	-0.00245	mg/L	0.000444	18.10%
Al 308.215†	61091.4	36.56	mg/L	0.218	182.8	mg/L	1.09	0.60%
As 188.979†	12.7	0.05311	mg/L	0.004411	0.2656	mg/L	0.02206	8.30%
B 249.677†	15.8	0.00215	mg/L	0.000676	0.01074	mg/L	0.003378	31.46%
Ba 233.527†	2174.5	0.5120	mg/L	0.00527	2.560	mg/L	0.0263	1.03%
Be 313.042†	684.5	0.00108	mg/L	0.000024	0.00538	mg/L	0.000120	2.22%
Ca 317.933†	98726.6	7.423	mg/L	0.0476	37.11	mg/L	0.238	0.64%
Cd 228.802†	371.7	0.01232	mg/L	0.000137	0.06160	mg/L	0.000684	1.11%
Co 228.616†	620.5	0.01478	mg/L	0.000149	0.07392	mg/L	0.000744	1.01%
Cr 267.716†	275.4	0.04692	mg/L	0.001048	0.2346	mg/L	0.00524	2.23%
Cu 324.752†	11597.3	0.04875	mg/L	0.000567	0.2438	mg/L	0.00283	1.16%
Fe 273.955†	54640.8	41.62	mg/L	0.160	208.1	mg/L	0.80	0.38%
K 766.490†	6012.1	3.151	mg/L	0.0299	15.76	mg/L	0.150	0.95%
Mg 279.077†	12254.8	8.985	mg/L	0.0658	44.93	mg/L	0.329	0.73%
Mn 257.610†	70780.9	1.980	mg/L	0.0086	9.901	mg/L	0.0432	0.44%
Mo 202.031†	33.4	0.00166	mg/L	0.000173	0.00828	mg/L	0.000866	10.47%
Na 589.592†	4687.5	0.4016	mg/L	0.00300	2.008	mg/L	0.0150	0.75%
Na 330.237†	2.7	0.2734	mg/L	0.09028	1.367	mg/L	0.4514	33.02%
Ni 231.604†	150.6	0.04028	mg/L	0.002102	0.2014	mg/L	0.01051	5.22%
Pb 220.353†	3639.2	0.4946	mg/L	0.00453	2.473	mg/L	0.0226	0.92%
Sb 206.836†	6.7	0.00243	mg/L	0.001468	0.01213	mg/L	0.007341	60.53%
Se 196.026†	8.6	0.00635	mg/L	0.002682	0.03177	mg/L	0.013408	42.21%
Si 288.158†	1986.3	0.9543	mg/L	0.01030	4.772	mg/L	0.0515	1.08%
Sn 189.927†	-8.7	-0.00118	mg/L	0.001394	-0.00588	mg/L	0.006968	118.44%
Sr 421.552†	78960.3	0.09231	mg/L	0.000637	0.4615	mg/L	0.00318	0.69%
Ti 334.903†	33411.4	1.609	mg/L	0.0081	8.043	mg/L	0.0406	0.51%
Tl 190.801†	-9.9	-0.00023	mg/L	0.001036	-0.00116	mg/L	0.005180	448.09%
V 292.402†	8528.3	0.06908	mg/L	0.000511	0.3454	mg/L	0.00255	0.74%
Zn 206.200†	2056.7	0.5752	mg/L	0.00437	2.876	mg/L	0.0219	0.76%

Sequence No.: 38
Sample ID: VR35 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 360
Date Collected: 11/19/2012 4:12:13 PM
Data Type: Original

Nebulizer Parameters: VR35 I SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2602833.0	109.1	%	0.35				0.32%
ScR 361.383	343536.2	112.5	%	0.92				0.82%
Ag 328.068†	18.5	0.00015	mg/L	0.000128	0.00073	mg/L	0.000639	87.89%
Al 308.215†	104768.1	62.70	mg/L	1.054	313.5	mg/L	5.27	1.68%
As 188.979†	-14.7	0.05397	mg/L	0.003645	0.2699	mg/L	0.01822	6.75%
B 249.677†	55.5	0.00757	mg/L	0.000555	0.03787	mg/L	0.002774	7.33%
Ba 233.527†	5356.1	1.265	mg/L	0.0080	6.325	mg/L	0.0400	0.63%
Be 313.042†	1118.3	0.00176	mg/L	0.000044	0.00882	mg/L	0.000218	2.48%
Ca 317.933†	217070.8	16.32	mg/L	0.280	81.60	mg/L	1.401	1.72%
Cd 228.802†	855.8	0.02869	mg/L	0.000172	0.1434	mg/L	0.00086	0.60%
Co 228.616†	1439.8	0.03744	mg/L	0.000159	0.1872	mg/L	0.00080	0.43%
Cr 267.716†	475.7	0.08114	mg/L	0.000694	0.4057	mg/L	0.00347	0.86%
Cu 324.752†	24275.1	0.1020	mg/L	0.00062	0.5098	mg/L	0.00308	0.60%
Fe 273.955†	104184.8	79.36	mg/L	1.441	396.8	mg/L	7.20	1.82%
K 766.490†	13766.3	7.216	mg/L	0.1143	36.08	mg/L	0.571	1.58%
Mg 279.077†	21626.3	15.85	mg/L	0.260	79.26	mg/L	1.299	1.64%
Mn 257.610†	163672.5	4.579	mg/L	0.0817	22.89	mg/L	0.409	1.79%
Mo 202.031†	70.7	0.00349	mg/L	0.000591	0.01747	mg/L	0.002953	16.90%
Na 589.592†	8667.0	0.7426	mg/L	0.01271	3.713	mg/L	0.0636	1.71%
Na 330.237†	16.2	0.5448	mg/L	0.16659	2.724	mg/L	0.8330	30.58%
Ni 231.604†	300.9	0.08049	mg/L	0.000334	0.4025	mg/L	0.00167	0.41%
Pb 220.353†	9700.0	1.311	mg/L	0.0043	6.556	mg/L	0.0214	0.33%
Sb 206.836†	18.6	0.00615	mg/L	0.001434	0.03074	mg/L	0.007170	23.33%
Se 196.026†	10.2	0.00751	mg/L	0.002799	0.03754	mg/L	0.013994	37.28%
Si 288.158†	2095.1	1.007	mg/L	0.0098	5.037	mg/L	0.0490	0.97%
Sn 189.927†	-9.5	-0.00017	mg/L	0.000873	-0.00087	mg/L	0.004367	502.58%
Sr 421.552†	148384.4	0.1735	mg/L	0.00297	0.8673	mg/L	0.01483	1.71%
Ti 334.903†	46238.1	2.226	mg/L	0.0387	11.13	mg/L	0.194	1.74%
Tl 190.801†	-17.9	0.00005	mg/L	0.000250	0.00023	mg/L	0.001252	555.70%
V 292.402†	12746.9	0.1030	mg/L	0.00052	0.5152	mg/L	0.00261	0.51%
Zn 206.200†	5885.4	1.646	mg/L	0.0133	8.230	mg/L	0.0663	0.81%

Sequence No.: 39
Sample ID: VR35 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 361
Date Collected: 11/19/2012 4:16:13 PM
Data Type: Original

Nebulizer Parameters: VR35 J SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2549449.6	106.9	%	0.36				0.33%
ScR 361.383	339994.5	111.3	%	1.05				0.94%
Ag 328.068†	20.8	0.00016	mg/L	0.000175	0.00079	mg/L	0.000877	111.03%
Al 308.215†	84940.5	50.84	mg/L	0.469	254.2	mg/L	2.35	0.92%
As 188.979†	15.1	0.06488	mg/L	0.001145	0.3244	mg/L	0.00572	1.76%
B 249.677†	30.8	0.00419	mg/L	0.001018	0.02095	mg/L	0.005088	24.29%
Ba 233.527†	5076.8	1.201	mg/L	0.0051	6.004	mg/L	0.0256	0.43%
Be 313.042†	1096.5	0.00173	mg/L	0.000020	0.00866	mg/L	0.000101	1.16%
Ca 317.933†	180983.1	13.61	mg/L	0.119	68.03	mg/L	0.593	0.87%
Cd 228.802†	791.2	0.02649	mg/L	0.000504	0.1324	mg/L	0.00252	1.90%
Co 228.616†	1048.0	0.02644	mg/L	0.000666	0.1322	mg/L	0.00333	2.52%
Cr 267.716†	451.7	0.07664	mg/L	0.000340	0.3832	mg/L	0.00170	0.44%
Cu 324.752†	18372.9	0.07726	mg/L	0.002125	0.3863	mg/L	0.01063	2.75%
Fe 273.955†	84228.0	64.16	mg/L	0.438	320.8	mg/L	2.19	0.68%
K 766.490†	10726.5	5.623	mg/L	0.0540	28.11	mg/L	0.270	0.96%
Mg 279.077†	20719.8	15.19	mg/L	0.134	75.97	mg/L	0.669	0.88%
Mn 257.610†	153540.6	4.295	mg/L	0.0323	21.48	mg/L	0.162	0.75%
Mo 202.031†	56.6	0.00279	mg/L	0.000091	0.01396	mg/L	0.000457	3.28%
Na 589.592†	6009.6	0.5149	mg/L	0.00466	2.574	mg/L	0.0233	0.90%
Na 330.237†	15.3	0.5488	mg/L	0.17690	2.744	mg/L	0.8845	32.24%
Ni 231.604†	240.9	0.06444	mg/L	0.001105	0.3222	mg/L	0.00553	1.72%
Pb 220.353†	8951.4	1.209	mg/L	0.0310	6.043	mg/L	0.1548	2.56%
Sb 206.836†	25.4	0.00824	mg/L	0.001440	0.04122	mg/L	0.007202	17.47%
Se 196.026†	12.7	0.00932	mg/L	0.002874	0.04658	mg/L	0.014370	30.85%
Si 288.158†	3487.3	1.675	mg/L	0.0113	8.377	mg/L	0.0565	0.67%
Sn 189.927†	-8.2	-0.00019	mg/L	0.000153	-0.00094	mg/L	0.000766	81.40%
Sr 421.552†	154007.4	0.1800	mg/L	0.00175	0.9002	mg/L	0.00877	0.97%
Ti 334.903†	41210.1	1.984	mg/L	0.0178	9.919	mg/L	0.0888	0.89%
Tl 190.801†	-10.6	0.00168	mg/L	0.002217	0.00840	mg/L	0.011087	132.02%
V 292.402†	11935.3	0.09690	mg/L	0.002210	0.4845	mg/L	0.01105	2.28%
Zn 206.200†	4876.1	1.364	mg/L	0.0060	6.819	mg/L	0.0300	0.44%

Sequence No.: 40
Sample ID: VR35 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 362
Date Collected: 11/19/2012 4:20:14 PM
Data Type: Original

Nebulizer Parameters: VR35 K SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR35 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2585324.5	108.4	%	0.55				0.51%
ScR 361.383	343399.2	112.4	%	2.04				1.81%
Ag 328.068†	-29.5	-0.00015	mg/L	0.000116	-0.00074	mg/L	0.000580	78.33%
Al 308.215†	56926.2	34.07	mg/L	0.526	170.3	mg/L	2.63	1.55%
As 188.979†	-55.8	0.03261	mg/L	0.002129	0.1630	mg/L	0.01065	6.53%
B 249.677†	54.8	0.00751	mg/L	0.001088	0.03753	mg/L	0.005441	14.50%
Ba 233.527†	1787.4	0.4157	mg/L	0.00735	2.078	mg/L	0.0367	1.77%
Be 313.042†	719.1	0.00111	mg/L	0.000060	0.00556	mg/L	0.000298	5.36%
Ca 317.933†	287300.9	21.60	mg/L	0.313	108.0	mg/L	1.56	1.45%
Cd 228.802†	761.2	0.02572	mg/L	0.000337	0.1286	mg/L	0.00169	1.31%
Co 228.616†	1072.9	0.02654	mg/L	0.000077	0.1327	mg/L	0.00038	0.29%
Cr 267.716†	513.5	0.08695	mg/L	0.000683	0.4347	mg/L	0.00342	0.79%
Cu 324.752†	17843.2	0.07507	mg/L	0.000264	0.3753	mg/L	0.00132	0.35%
Fe 273.955†	86204.2	65.66	mg/L	0.964	328.3	mg/L	4.82	1.47%
K 766.490†	18879.6	9.896	mg/L	0.1644	49.48	mg/L	0.822	1.66%
Mg 279.077†	25316.2	18.57	mg/L	0.272	92.86	mg/L	1.361	1.47%
Mn 257.610†	54068.8	1.513	mg/L	0.0221	7.565	mg/L	0.1104	1.46%
Mo 202.031†	47.2	0.00222	mg/L	0.000185	0.01108	mg/L	0.000924	8.34%
Na 589.592†	7570.4	0.6486	mg/L	0.00548	3.243	mg/L	0.0274	0.85%
Na 330.237†	11.2	0.4278	mg/L	0.25921	2.139	mg/L	1.2960	60.59%
Ni 231.604†	216.7	0.05796	mg/L	0.000638	0.2898	mg/L	0.00319	1.10%
Pb 220.353†	9048.1	1.218	mg/L	0.0102	6.088	mg/L	0.0508	0.83%
Sb 206.836†	11.6	0.00392	mg/L	0.001840	0.01961	mg/L	0.009199	46.91%
Se 196.026†	5.1	0.00370	mg/L	0.001322	0.01851	mg/L	0.006608	35.69%
Si 288.158†	1411.4	0.6796	mg/L	0.01455	3.398	mg/L	0.0728	2.14%
Sn 189.927†	-12.2	-0.00023	mg/L	0.000243	-0.00114	mg/L	0.001217	106.85%
Sr 421.552†	124781.5	0.1459	mg/L	0.00209	0.7294	mg/L	0.01047	1.44%
Ti 334.903†	48604.4	2.340	mg/L	0.0346	11.70	mg/L	0.173	1.48%
Tl 190.801†	-8.2	0.00281	mg/L	0.003956	0.01405	mg/L	0.019780	140.74%
V 292.402†	14700.6	0.1193	mg/L	0.00083	0.5963	mg/L	0.00417	0.70%
Zn 206.200†	5482.6	1.533	mg/L	0.0261	7.667	mg/L	0.1303	1.70%

Sequence No.: 41
Sample ID: VR35 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 363
Date Collected: 11/19/2012 4:24:14 PM
Data Type: Original

Nebulizer Parameters: VR35 L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR35 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2565626.7	107.6	%	0.38				0.35%
ScR 361.383	339449.0	111.2	%	0.97				0.87%
Ag 328.068†	172.3	0.00109	mg/L	0.000173	0.00547	mg/L	0.000867	15.85%
Al 308.215†	71007.6	42.50	mg/L	0.503	212.5	mg/L	2.52	1.18%
As 188.979†	96.1	0.1089	mg/L	0.00159	0.5443	mg/L	0.00794	1.46%
B 249.677†	19.1	0.00260	mg/L	0.000379	0.01302	mg/L	0.001896	14.56%
Ba 233.527†	2065.9	0.4855	mg/L	0.00484	2.428	mg/L	0.0242	1.00%
Be 313.042†	807.0	0.00127	mg/L	0.000024	0.00634	mg/L	0.000118	1.86%
Ca 317.933†	105237.0	7.912	mg/L	0.1039	39.56	mg/L	0.520	1.31%
Cd 228.802†	847.7	0.02826	mg/L	0.000148	0.1413	mg/L	0.00074	0.52%
Co 228.616†	639.3	0.01487	mg/L	0.000226	0.07435	mg/L	0.001129	1.52%
Cr 267.716†	278.2	0.04742	mg/L	0.000970	0.2371	mg/L	0.00485	2.04%
Cu 324.752†	28715.4	0.1187	mg/L	0.00071	0.5934	mg/L	0.00353	0.59%
Fe 273.955†	59085.6	45.01	mg/L	0.548	225.0	mg/L	2.74	1.22%
K 766.490†	6607.0	3.463	mg/L	0.0500	17.32	mg/L	0.250	1.44%
Mg 279.077†	14021.8	10.28	mg/L	0.107	51.41	mg/L	0.536	1.04%
Mn 257.610†	52422.7	1.467	mg/L	0.0188	7.334	mg/L	0.0938	1.28%
Mo 202.031†	36.9	0.00183	mg/L	0.000220	0.00916	mg/L	0.001099	12.00%
Na 589.592†	6357.6	0.5447	mg/L	0.00973	2.723	mg/L	0.0487	1.79%
Na 330.237†	18.8	0.7160	mg/L	0.05477	3.580	mg/L	0.2738	7.65%
Ni 231.604†	146.0	0.03907	mg/L	0.001249	0.1953	mg/L	0.00625	3.20%
Pb 220.353†	16137.5	2.170	mg/L	0.0124	10.85	mg/L	0.062	0.57%
Sb 206.836†	46.0	0.01514	mg/L	0.000924	0.07572	mg/L	0.004619	6.10%
Se 196.026†	8.9	0.00656	mg/L	0.002972	0.03279	mg/L	0.014862	45.33%
Si 288.158†	2471.5	1.187	mg/L	0.0116	5.937	mg/L	0.0581	0.98%
Sn 189.927†	10.4	0.00412	mg/L	0.000942	0.02061	mg/L	0.004709	22.85%
Sr 421.552†	68496.9	0.08007	mg/L	0.000939	0.4004	mg/L	0.00469	1.17%
Ti 334.903†	38058.2	1.832	mg/L	0.0211	9.162	mg/L	0.1055	1.15%
Tl 190.801†	-6.2	0.00167	mg/L	0.000113	0.00836	mg/L	0.000564	6.75%
V 292.402†	10095.7	0.08179	mg/L	0.000418	0.4090	mg/L	0.00209	0.51%
Zn 206.200†	4038.0	1.129	mg/L	0.0100	5.647	mg/L	0.0500	0.88%

Sequence No.: 42
Sample ID: VR37 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 364
Date Collected: 11/19/2012 4:28:14 PM
Data Type: Original

Nebulizer Parameters: VR37 B SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2576385.8	108.0	%	0.33				0.31%
ScR 361.383	342912.8	112.3	%	0.86				0.77%
Ag 328.068†	-148.8	-0.00090	mg/L	0.000321	-0.00450	mg/L	0.001605	35.70%
Al 308.215†	70113.1	41.96	mg/L	0.575	209.8	mg/L	2.87	1.37%
As 188.979†	-74.8	0.00753	mg/L	0.004104	0.03767	mg/L	0.020520	54.47%
B 249.677†	15.5	0.00211	mg/L	0.000290	0.01053	mg/L	0.001448	13.74%
Ba 233.527†	1361.8	0.3174	mg/L	0.00484	1.587	mg/L	0.0242	1.53%
Be 313.042†	669.5	0.00105	mg/L	0.000013	0.00523	mg/L	0.000064	1.22%
Ca 317.933†	99744.2	7.499	mg/L	0.0916	37.50	mg/L	0.458	1.22%
Cd 228.802†	21.5	0.00063	mg/L	0.000123	0.00313	mg/L	0.000613	19.58%
Co 228.616†	590.0	0.01342	mg/L	0.000508	0.06709	mg/L	0.002538	3.78%
Cr 267.716†	274.1	0.04691	mg/L	0.001282	0.2345	mg/L	0.00641	2.73%
Cu 324.752†	8420.0	0.03591	mg/L	0.001374	0.1796	mg/L	0.00687	3.83%
Fe 273.955†	59763.7	45.52	mg/L	0.723	227.6	mg/L	3.61	1.59%
K 766.490†	4467.6	2.342	mg/L	0.0418	11.71	mg/L	0.209	1.79%
Mg 279.077†	13219.4	9.692	mg/L	0.1326	48.46	mg/L	0.663	1.37%
Mn 257.610†	23557.6	0.6590	mg/L	0.01074	3.295	mg/L	0.0537	1.63%
Mo 202.031†	17.4	0.00082	mg/L	0.000115	0.00411	mg/L	0.000577	14.03%
Na 589.592†	6310.9	0.5407	mg/L	0.00575	2.704	mg/L	0.0288	1.06%
Na 330.237†	4.2	0.5225	mg/L	0.18870	2.612	mg/L	0.9435	36.12%
Ni 231.604†	141.5	0.03785	mg/L	0.001728	0.1893	mg/L	0.00864	4.56%
Pb 220.353†	114.9	0.02360	mg/L	0.001585	0.1180	mg/L	0.00793	6.72%
Sb 206.836†	-4.0	-0.00083	mg/L	0.001054	-0.00414	mg/L	0.005272	127.26%
Se 196.026†	7.0	0.00512	mg/L	0.002627	0.02558	mg/L	0.013133	51.34%
Si 288.158†	3539.3	1.700	mg/L	0.0282	8.498	mg/L	0.1409	1.66%
Sn 189.927†	-13.7	-0.00248	mg/L	0.000115	-0.01241	mg/L	0.000576	4.64%
Sr 421.552†	78359.4	0.09160	mg/L	0.001273	0.4580	mg/L	0.00636	1.39%
Ti 334.903†	37927.0	1.826	mg/L	0.0260	9.130	mg/L	0.1302	1.43%
Tl 190.801†	-14.5	-0.00190	mg/L	0.001135	-0.00948	mg/L	0.005677	59.91%
V 292.402†	10259.1	0.08301	mg/L	0.003036	0.4151	mg/L	0.01518	3.66%
Zn 206.200†	479.1	0.1340	mg/L	0.00099	0.6700	mg/L	0.00495	0.74%

Sequence No.: 43
Sample ID: CV 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 4:32:14 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	222.0 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	2566778.0	107.6	%	0.95				0.88%
ScR 361.383	330718.2	108.3	%	1.54				1.42%
Ag 328.068†	156222.2	0.9703	mg/L	0.00326	0.9703	mg/L	0.00326	0.34%
Al 308.215†	3309.3	1.948	mg/L	0.0295	1.948	mg/L	0.0295	1.51%
As 188.979†	3296.2	1.974	mg/L	0.0149	1.974	mg/L	0.0149	0.76%
B 249.677†	6990.4	0.9638	mg/L	0.01174	0.9638	mg/L	0.01174	1.22%
Ba 233.527†	4159.9	0.9921	mg/L	0.01430	0.9921	mg/L	0.01430	1.44%
Be 313.042†	585518.9	0.9481	mg/L	0.01675	0.9481	mg/L	0.01675	1.77%
Ca 317.933†	24803.8	1.865	mg/L	0.0336	1.865	mg/L	0.0336	1.80%
Cd 228.802†	28942.5	0.9793	mg/L	0.00274	0.9793	mg/L	0.00274	0.28%
Co 228.616†	32879.6	0.9774	mg/L	0.00267	0.9774	mg/L	0.00267	0.27%
Cr 267.716†	5871.3	0.9874	mg/L	0.01230	0.9874	mg/L	0.01230	1.25%
Cu 324.752†	238628.3	0.9732	mg/L	0.00325	0.9732	mg/L	0.00325	0.33%
Fe 273.955†	2571.3	1.952	mg/L	0.0252	1.952	mg/L	0.0252	1.29%
K 766.490†	36799.9	19.29	mg/L	0.365	19.29	mg/L	0.365	1.89%
Mg 279.077†	2616.1	1.930	mg/L	0.0253	1.930	mg/L	0.0253	1.31%
Mn 257.610†	33646.4	0.9416	mg/L	0.01776	0.9416	mg/L	0.01776	1.89%
Mo 202.031†	18700.6	0.9720	mg/L	0.00804	0.9720	mg/L	0.00804	0.83%
Na 589.592†	579565.0	49.66	mg/L	0.770	49.66	mg/L	0.770	1.55%
Na 330.237†	1409.6	50.32	mg/L	0.480	50.32	mg/L	0.480	0.95%
Ni 231.604†	3668.7	0.9816	mg/L	0.01242	0.9816	mg/L	0.01242	1.26%
Pb 220.353†	14609.2	1.958	mg/L	0.0181	1.958	mg/L	0.0181	0.92%
Sb 206.836†	6287.8	2.002	mg/L	0.0202	2.002	mg/L	0.0202	1.01%
Se 196.026†	2621.5	1.940	mg/L	0.0135	1.940	mg/L	0.0135	0.70%
Si 288.158†	4078.3	1.957	mg/L	0.0278	1.957	mg/L	0.0278	1.42%
Sn 189.927†	3548.7	0.9542	mg/L	0.00732	0.9542	mg/L	0.00732	0.77%
Sr 421.552†	831791.8	0.9724	mg/L	0.01555	0.9724	mg/L	0.01555	1.60%
Ti 334.903†	19723.6	0.9487	mg/L	0.01713	0.9487	mg/L	0.01713	1.81%
Tl 190.801†	4470.6	1.948	mg/L	0.0204	1.948	mg/L	0.0204	1.05%
V 292.402†	116396.6	0.9725	mg/L	0.00287	0.9725	mg/L	0.00287	0.29%
Zn 206.200†	3591.7	1.004	mg/L	0.0113	1.004	mg/L	0.0113	1.12%

Sequence No.: 44
Sample ID: CB 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 4:37:07 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2528632.6	106.0	%	0.33				0.31%
ScR 361.383	335617.5	109.9	%	1.20				1.09%
Ag 328.068†	10.6	0.00007	mg/L	0.000196	0.00007	mg/L	0.000196	297.61%
Al 308.215†	9.1	0.00542	mg/L	0.003831	0.00542	mg/L	0.003831	70.72%
As 188.979†	2.6	0.00152	mg/L	0.003636	0.00152	mg/L	0.003636	238.67%
B 249.677†	4.8	0.00066	mg/L	0.000675	0.00066	mg/L	0.000675	101.56%
Ba 233.527†	-1.3	-0.00030	mg/L	0.000980	-0.00030	mg/L	0.000980	322.40%
Be 313.042†	21.2	0.00003	mg/L	0.000046	0.00003	mg/L	0.000046	134.16%
Ca 317.933†	-7.0	-0.00053	mg/L	0.000453	-0.00053	mg/L	0.000453	86.21%
Cd 228.802†	-4.0	-0.00015	mg/L	0.000124	-0.00015	mg/L	0.000124	85.47%
Co 228.616†	6.1	0.00018	mg/L	0.000037	0.00018	mg/L	0.000037	20.47%
Cr 267.716†	8.0	0.00134	mg/L	0.000636	0.00134	mg/L	0.000636	47.46%
Cu 324.752†	-12.6	-0.00005	mg/L	0.000028	-0.00005	mg/L	0.000028	55.17%
Fe 273.955†	12.8	0.00974	mg/L	0.002070	0.00974	mg/L	0.002070	21.26%
K 766.490†	-67.3	-0.03526	mg/L	0.016289	-0.03526	mg/L	0.016289	46.20%
Mg 279.077†	-8.5	-0.00627	mg/L	0.003143	-0.00627	mg/L	0.003143	50.14%
Mn 257.610†	12.3	0.00034	mg/L	0.000021	0.00034	mg/L	0.000021	6.12%
Mo 202.031†	13.4	0.00069	mg/L	0.000216	0.00069	mg/L	0.000216	31.18%
Na 589.592†	193.9	0.01661	mg/L	0.002091	0.01661	mg/L	0.002091	12.59%
Na 330.237†	6.2	0.2205	mg/L	0.78207	0.2205	mg/L	0.78207	354.68%
Ni 231.604†	9.3	0.00248	mg/L	0.001826	0.00248	mg/L	0.001826	73.64%
Pb 220.353†	-0.8	-0.00010	mg/L	0.000822	-0.00010	mg/L	0.000822	809.79%
Sb 206.836†	7.3	0.00231	mg/L	0.000575	0.00231	mg/L	0.000575	24.86%
Se 196.026†	0.3	0.00025	mg/L	0.000921	0.00025	mg/L	0.000921	369.38%
Si 288.158†	-1.3	-0.00063	mg/L	0.003388	-0.00063	mg/L	0.003388	533.83%
Sn 189.927†	-0.5	-0.00013	mg/L	0.000704	-0.00013	mg/L	0.000704	523.38%
Sr 421.552†	59.1	0.00007	mg/L	0.000003	0.00007	mg/L	0.000003	5.06%
Ti 334.903†	3.5	0.00017	mg/L	0.001577	0.00017	mg/L	0.001577	938.29%
Tl 190.801†	0.4	0.00018	mg/L	0.001041	0.00018	mg/L	0.001041	567.07%
V 292.402†	3.8	0.00004	mg/L	0.000068	0.00004	mg/L	0.000068	179.49%
Zn 206.200†	-0.4	-0.00011	mg/L	0.000492	-0.00011	mg/L	0.000492	442.41%

Sequence No.: 45
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/19/2012 4:41:22 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	223.0 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	2569652.8	107.8	%	0.79				0.74%
ScR 361.383	337454.4	110.5	%	0.83				0.75%
Ag 328.068†	486.3	0.00302	mg/L	0.000058	0.00302	mg/L	0.000058	1.91%
Al 308.215†	90.4	0.05398	mg/L	0.001565	0.05398	mg/L	0.001565	2.90%
As 188.979†	85.0	0.05042	mg/L	0.000440	0.05042	mg/L	0.000440	0.87%
B 249.677†	141.3	0.01949	mg/L	0.000767	0.01949	mg/L	0.000767	3.94%
Ba 233.527†	10.9	0.00259	mg/L	0.000400	0.00259	mg/L	0.000400	15.44%
Be 313.042†	569.5	0.00092	mg/L	0.000039	0.00092	mg/L	0.000039	4.21%
Ca 317.933†	681.5	0.05124	mg/L	0.001101	0.05124	mg/L	0.001101	2.15%
Cd 228.802†	58.6	0.00168	mg/L	0.000062	0.00168	mg/L	0.000062	3.68%
Co 228.616†	119.9	0.00356	mg/L	0.000322	0.00356	mg/L	0.000322	9.04%
Cr 267.716†	37.1	0.00624	mg/L	0.000088	0.00624	mg/L	0.000088	1.40%
Cu 324.752†	408.3	0.00167	mg/L	0.000090	0.00167	mg/L	0.000090	5.41%
Fe 273.955†	78.4	0.05970	mg/L	0.001965	0.05970	mg/L	0.001965	3.29%
K 766.490†	836.2	0.4383	mg/L	0.01687	0.4383	mg/L	0.01687	3.85%
Mg 279.077†	57.8	0.04249	mg/L	0.003564	0.04249	mg/L	0.003564	8.39%
Mn 257.610†	46.3	0.00130	mg/L	0.000131	0.00130	mg/L	0.000131	10.07%
Mo 202.031†	89.7	0.00466	mg/L	0.000220	0.00466	mg/L	0.000220	4.72%
Na 589.592†	5752.6	0.4929	mg/L	0.00540	0.4929	mg/L	0.00540	1.09%
Na 330.237†	17.9	0.6395	mg/L	0.50144	0.6395	mg/L	0.50144	78.41%
Ni 231.604†	45.2	0.01210	mg/L	0.000642	0.01210	mg/L	0.000642	5.30%
Pb 220.353†	147.2	0.01975	mg/L	0.000194	0.01975	mg/L	0.000194	0.98%
Sb 206.836†	149.7	0.04770	mg/L	0.001948	0.04770	mg/L	0.001948	4.08%
Se 196.026†	71.3	0.05277	mg/L	0.002735	0.05277	mg/L	0.002735	5.18%
Si 288.158†	122.4	0.05870	mg/L	0.003317	0.05870	mg/L	0.003317	5.65%
Sn 189.927†	35.3	0.00949	mg/L	0.000425	0.00949	mg/L	0.000425	4.48%
Sr 421.552†	874.2	0.00102	mg/L	0.000015	0.00102	mg/L	0.000015	1.43%
Ti 334.903†	87.6	0.00421	mg/L	0.000714	0.00421	mg/L	0.000714	16.95%
Tl 190.801†	113.3	0.04954	mg/L	0.000042	0.04954	mg/L	0.000042	0.09%
V 292.402†	364.1	0.00305	mg/L	0.000110	0.00305	mg/L	0.000110	3.62%
Zn 206.200†	36.4	0.01017	mg/L	0.000378	0.01017	mg/L	0.000378	3.72%

Sequence No.: 46
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/19/2012 4:45:38 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	222.0 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	2514536.2	105.4	%	0.59				0.56%
ScR 361.383	329654.3	107.9	%	0.79				0.73%
Ag 328.068†	-157.8	-0.00098	mg/L	0.000090	-0.00098	mg/L	0.000090	9.22%
Al 308.215†	318485.8	190.6	mg/L	2.05	190.6	mg/L	2.05	1.08%
As 188.979†	38.6	0.01746	mg/L	0.001987	0.01746	mg/L	0.001987	11.38%
B 249.677†	-22.0	-0.00304	mg/L	0.002909	-0.00304	mg/L	0.002909	95.67%
Ba 233.527†	122.0	-0.00096	mg/L	0.000884	-0.00096	mg/L	0.000884	92.49%
Be 313.042†	20.3	0.00003	mg/L	0.000008	0.00003	mg/L	0.000008	25.12%
Ca 317.933†	1262453.2	94.92	mg/L	1.310	94.92	mg/L	1.310	1.38%
Cd 228.802†	45.6	-0.00033	mg/L	0.000195	-0.00033	mg/L	0.000195	58.38%
Co 228.616†	65.2	-0.00046	mg/L	0.000156	-0.00046	mg/L	0.000156	34.09%
Cr 267.716†	23.9	0.00185	mg/L	0.001466	0.00185	mg/L	0.001466	79.35%
Cu 324.752†	-1945.8	-0.00065	mg/L	0.000084	-0.00065	mg/L	0.000084	12.91%
Fe 273.955†	241017.9	183.6	mg/L	2.71	183.6	mg/L	2.71	1.48%
K 766.490†	-52.9	-0.02772	mg/L	0.012362	-0.02772	mg/L	0.012362	44.60%
Mg 279.077†	134087.3	98.45	mg/L	1.350	98.45	mg/L	1.350	1.37%
Mn 257.610†	37.7	0.00099	mg/L	0.000517	0.00099	mg/L	0.000517	52.06%
Mo 202.031†	34.9	0.00079	mg/L	0.000056	0.00079	mg/L	0.000056	7.12%
Na 589.592†	339.4	0.02908	mg/L	0.002048	0.02908	mg/L	0.002048	7.04%
Na 330.237†	1.6	0.05618	mg/L	0.025642	0.05618	mg/L	0.025642	45.64%
Ni 231.604†	5.8	0.00157	mg/L	0.001115	0.00157	mg/L	0.001115	71.07%
Pb 220.353†	-281.5	0.00037	mg/L	0.000690	0.00037	mg/L	0.000690	188.21%
Sb 206.836†	3.9	0.00107	mg/L	0.001969	0.00107	mg/L	0.001969	184.71%
Se 196.026†	15.2	0.01124	mg/L	0.009395	0.01124	mg/L	0.009395	83.55%
Si 288.158†	-29.9	-0.00245	mg/L	0.001844	-0.00245	mg/L	0.001844	75.37%
Sn 189.927†	-65.1	-0.00574	mg/L	0.001205	-0.00574	mg/L	0.001205	21.01%
Sr 421.552†	3302.7	0.00386	mg/L	0.000064	0.00386	mg/L	0.000064	1.67%
Ti 334.903†	116.6	0.00108	mg/L	0.000070	0.00108	mg/L	0.000070	6.42%
Tl 190.801†	-59.6	-0.00649	mg/L	0.000726	-0.00649	mg/L	0.000726	11.19%
V 292.402†	1328.8	0.00465	mg/L	0.000150	0.00465	mg/L	0.000150	3.23%
Zn 206.200†	13.0	0.00362	mg/L	0.000936	0.00362	mg/L	0.000936	25.82%

Cont.

Sequence No.: 47
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/19/2012 4:49:54 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	222.0 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	2541478.8	106.6	%	0.74				0.70%
ScR 361.383	331638.8	108.6	%	1.22				1.12%
Ag 328.068†	158228.0	0.9828	mg/L	0.00442	0.9828	mg/L	0.00442	0.45%
Al 308.215†	316329.9	189.3	mg/L	1.68	189.3	mg/L	1.68	0.89%
As 188.979†	1693.6	0.9966	mg/L	0.00960	0.9966	mg/L	0.00960	0.96%
B 249.677†	-2.2	-0.00224	mg/L	0.000512	-0.00224	mg/L	0.000512	22.83%
Ba 233.527†	4269.0	0.9880	mg/L	0.01277	0.9880	mg/L	0.01277	1.29%
Be 313.042†	591782.2	0.9583	mg/L	0.00921	0.9583	mg/L	0.00921	0.96%
Ca 317.933†	1275783.0	95.92	mg/L	0.940	95.92	mg/L	0.940	0.98%
Cd 228.802†	28713.0	0.9760	mg/L	0.00300	0.9760	mg/L	0.00300	0.31%
Co 228.616†	31622.0	0.9393	mg/L	0.00303	0.9393	mg/L	0.00303	0.32%
Cr 267.716†	5868.4	0.9853	mg/L	0.01260	0.9853	mg/L	0.01260	1.28%
Cu 324.752†	241572.5	0.9932	mg/L	0.00418	0.9932	mg/L	0.00418	0.42%
Fe 273.955†	243452.3	185.4	mg/L	1.85	185.4	mg/L	1.85	1.00%
K 766.490†	-135.4	-0.07096	mg/L	0.007550	-0.07096	mg/L	0.007550	10.64%
Mg 279.077†	129522.8	95.10	mg/L	0.946	95.10	mg/L	0.946	0.99%
Mn 257.610†	33088.8	0.9257	mg/L	0.00854	0.9257	mg/L	0.00854	0.92%
Mo 202.031†	45.6	0.00128	mg/L	0.000209	0.00128	mg/L	0.000209	16.32%
Na 589.592†	422.3	0.03618	mg/L	0.001654	0.03618	mg/L	0.001654	4.57%
Na 330.237†	11.9	0.1133	mg/L	0.35920	0.1133	mg/L	0.35920	317.03%
Ni 231.604†	3579.7	0.9576	mg/L	0.01022	0.9576	mg/L	0.01022	1.07%
Pb 220.353†	6788.3	0.9476	mg/L	0.00711	0.9476	mg/L	0.00711	0.75%
Sb 206.836†	3069.4	0.9672	mg/L	0.00968	0.9672	mg/L	0.00968	1.00%
Se 196.026†	1323.5	0.9789	mg/L	0.01361	0.9789	mg/L	0.01361	1.39%
Si 288.158†	-30.1	0.00061	mg/L	0.000754	0.00061	mg/L	0.000754	122.66%
Sn 189.927†	-66.1	-0.00541	mg/L	0.000771	-0.00541	mg/L	0.000771	14.26%
Sr 421.552†	3241.2	0.00379	mg/L	0.000062	0.00379	mg/L	0.000062	1.65%
Ti 334.903†	114.5	0.00074	mg/L	0.000135	0.00074	mg/L	0.000135	18.30%
Tl 190.801†	2071.2	0.9170	mg/L	0.00894	0.9170	mg/L	0.00894	0.97%
V 292.402†	114200.6	0.9478	mg/L	0.00338	0.9478	mg/L	0.00338	0.36%
Zn 206.200†	3388.1	0.9475	mg/L	0.01220	0.9475	mg/L	0.01220	1.29%

Conf.

Sequence No.: 48
Sample ID: CV ii
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 4:53:43 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	2530090.7	106.1	%	0.58				0.55%
ScR 361.383	331314.2	108.5	%	1.64				1.52%
Ag 328.068†	167040.2	1.038	mg/L	0.0082	1.038	mg/L	0.0082	0.79%
Al 308.215†	3347.3	1.970	mg/L	0.0379	1.970	mg/L	0.0379	1.93%
As 188.979†	3410.7	2.042	mg/L	0.0103	2.042	mg/L	0.0103	0.50%
B 249.677†	7027.8	0.9689	mg/L	0.02071	0.9689	mg/L	0.02071	2.14%
Ba 233.527†	4215.0	1.005	mg/L	0.0208	1.005	mg/L	0.0208	2.07%
Be 313.042†	585617.2	0.9482	mg/L	0.01914	0.9482	mg/L	0.01914	2.02%
Ca 317.933†	25158.6	1.892	mg/L	0.0322	1.892	mg/L	0.0322	1.70%
Cd 228.802†	30083.7	1.018	mg/L	0.0055	1.018	mg/L	0.0055	0.54%
Co 228.616†	34080.5	1.013	mg/L	0.0065	1.013	mg/L	0.0065	0.64%
Cr 267.716†	5919.9	0.9956	mg/L	0.02068	0.9956	mg/L	0.02068	2.08%
Cu 324.752†	241373.1	0.9844	mg/L	0.00129	0.9844	mg/L	0.00129	0.13%
Fe 273.955†	2616.0	1.985	mg/L	0.0321	1.985	mg/L	0.0321	1.62%
K 766.490†	36597.9	19.18	mg/L	0.389	19.18	mg/L	0.389	2.03%
Mg 279.077†	2668.4	1.968	mg/L	0.0410	1.968	mg/L	0.0410	2.08%
Mn 257.610†	33591.1	0.9400	mg/L	0.01847	0.9400	mg/L	0.01847	1.96%
Mo 202.031†	18853.8	0.9800	mg/L	0.00680	0.9800	mg/L	0.00680	0.69%
Na 589.592†	575722.0	49.33	mg/L	0.961	49.33	mg/L	0.961	1.95%
Na 330.237†	1405.1	50.16	mg/L	0.759	50.16	mg/L	0.759	1.51%
Ni 231.604†	3727.8	0.9974	mg/L	0.02034	0.9974	mg/L	0.02034	2.04%
Pb 220.353†	14765.5	1.979	mg/L	0.0077	1.979	mg/L	0.0077	0.39%
Sb 206.836†	6514.5	2.074	mg/L	0.0118	2.074	mg/L	0.0118	0.57%
Se 196.026†	2698.3	1.997	mg/L	0.0117	1.997	mg/L	0.0117	0.59%
Si 288.158†	4095.5	1.965	mg/L	0.0448	1.965	mg/L	0.0448	2.28%
Sn 189.927†	3660.6	0.9843	mg/L	0.00315	0.9843	mg/L	0.00315	0.32%
Sr 421.552†	825261.3	0.9647	mg/L	0.02019	0.9647	mg/L	0.02019	2.09%
Ti 334.903†	19644.6	0.9449	mg/L	0.01940	0.9449	mg/L	0.01940	2.05%
Tl 190.801†	4603.8	2.005	mg/L	0.0080	2.005	mg/L	0.0080	0.40%
V 292.402†	123095.6	1.028	mg/L	0.0076	1.028	mg/L	0.0076	0.74%
Zn 206.200†	3660.9	1.024	mg/L	0.0210	1.024	mg/L	0.0210	2.05%

Sequence No.: 49
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 4:58:51 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2533022.8	106.2	%	0.31				0.29%
ScR 361.383	334275.5	109.5	%	0.94				0.86%
Ag 328.068†	14.4	0.00009	mg/L	0.000116	0.00009	mg/L	0.000116	129.32%
Al 308.215†	8.9	0.00531	mg/L	0.006394	0.00531	mg/L	0.006394	120.38%
As 188.979†	1.3	0.00077	mg/L	0.001238	0.00077	mg/L	0.001238	160.75%
B 249.677†	9.3	0.00129	mg/L	0.000255	0.00129	mg/L	0.000255	19.82%
Ba 233.527†	-1.9	-0.00044	mg/L	0.000687	-0.00044	mg/L	0.000687	154.94%
Be 313.042†	56.1	0.00009	mg/L	0.000060	0.00009	mg/L	0.000060	66.01%
Ca 317.933†	54.6	0.00410	mg/L	0.000723	0.00410	mg/L	0.000723	17.62%
Cd 228.802†	-4.6	-0.00016	mg/L	0.000055	-0.00016	mg/L	0.000055	33.90%
Co 228.616†	3.6	0.00011	mg/L	0.000134	0.00011	mg/L	0.000134	122.91%
Cr 267.716†	7.0	0.00118	mg/L	0.000737	0.00118	mg/L	0.000737	62.52%
Cu 324.752†	-27.4	-0.00011	mg/L	0.000085	-0.00011	mg/L	0.000085	76.66%
Fe 273.955†	13.2	0.01007	mg/L	0.000431	0.01007	mg/L	0.000431	4.28%
K 766.490†	-45.0	-0.02360	mg/L	0.008389	-0.02360	mg/L	0.008389	35.54%
Mg 279.077†	0.3	0.00020	mg/L	0.004164	0.00020	mg/L	0.004164	>999.9%
Mn 257.610†	-2.7	-0.00008	mg/L	0.000094	-0.00008	mg/L	0.000094	124.96%
Mo 202.031†	10.4	0.00054	mg/L	0.000134	0.00054	mg/L	0.000134	24.66%
Na 589.592†	200.2	0.01715	mg/L	0.001828	0.01715	mg/L	0.001828	10.66%
Na 330.237†	2.8	0.09849	mg/L	0.428855	0.09849	mg/L	0.428855	435.43%
Ni 231.604†	10.7	0.00285	mg/L	0.000606	0.00285	mg/L	0.000606	21.25%
Pb 220.353†	-4.6	-0.00061	mg/L	0.000358	-0.00061	mg/L	0.000358	58.67%
Sb 206.836†	2.0	0.00062	mg/L	0.001372	0.00062	mg/L	0.001372	221.44%
Se 196.026†	2.6	0.00195	mg/L	0.003669	0.00195	mg/L	0.003669	187.79%
Si 288.158†	2.4	0.00115	mg/L	0.004033	0.00115	mg/L	0.004033	351.95%
Sn 189.927†	1.8	0.00049	mg/L	0.000734	0.00049	mg/L	0.000734	151.17%
Sr 421.552†	58.0	0.00007	mg/L	0.000037	0.00007	mg/L	0.000037	55.19%
Ti 334.903†	-9.5	-0.00046	mg/L	0.001329	-0.00046	mg/L	0.001329	289.88%
Tl 190.801†	-0.7	-0.00031	mg/L	0.000607	-0.00031	mg/L	0.000607	195.50%
V 292.402†	4.2	0.00004	mg/L	0.000200	0.00004	mg/L	0.000200	501.42%
Zn 206.200†	-1.4	-0.00039	mg/L	0.000605	-0.00039	mg/L	0.000605	154.60%

Sequence No.: 50
Sample ID: VR37 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 365
Date Collected: 11/19/2012 5:03:06 PM
Data Type: Original

Nebulizer Parameters: VR37 MB1 SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2627842.6	110.2	%	0.52				0.47%
ScR 361.383	340250.0	111.4	%	0.41				0.37%
Ag 328.068†	11.1	0.00007	mg/L	0.000160	0.00014	mg/L	0.000319	231.37%
Al 308.215†	23.5	0.01409	mg/L	0.004628	0.02818	mg/L	0.009257	32.85%
As 188.979†	1.2	0.00068	mg/L	0.001149	0.00136	mg/L	0.002297	169.08%
B 249.677†	4.2	0.00058	mg/L	0.000851	0.00116	mg/L	0.001703	146.83%
Ba 233.527†	0.4	0.00009	mg/L	0.000091	0.00018	mg/L	0.000182	103.11%
Be 313.042†	28.7	0.00005	mg/L	0.000015	0.00009	mg/L	0.000031	33.11%
Ca 317.933†	187.9	0.01413	mg/L	0.001404	0.02826	mg/L	0.002808	9.94%
Cd 228.802†	-9.9	-0.00034	mg/L	0.000059	-0.00068	mg/L	0.000119	17.39%
Co 228.616†	9.0	0.00027	mg/L	0.000072	0.00054	mg/L	0.000144	26.62%
Cr 267.716†	13.4	0.00225	mg/L	0.000381	0.00450	mg/L	0.000762	16.93%
Cu 324.752†	-26.9	-0.00011	mg/L	0.000048	-0.00022	mg/L	0.000095	43.84%
Fe 273.955†	26.0	0.01977	mg/L	0.000549	0.03955	mg/L	0.001098	2.78%
K 766.490†	-76.3	-0.04002	mg/L	0.003303	-0.08004	mg/L	0.006605	8.25%
Mg 279.077†	-0.6	-0.00042	mg/L	0.003241	-0.00085	mg/L	0.006483	763.61%
Mn 257.610†	17.1	0.00048	mg/L	0.000055	0.00096	mg/L	0.000110	11.51%
Mo 202.031†	-4.2	-0.00022	mg/L	0.000078	-0.00043	mg/L	0.000156	35.92%
Na 589.592†	215.0	0.01842	mg/L	0.000859	0.03683	mg/L	0.001718	4.66%
Na 330.237†	7.9	0.2815	mg/L	0.42895	0.5630	mg/L	0.85791	152.38%
Ni 231.604†	2.0	0.00052	mg/L	0.000661	0.00104	mg/L	0.001322	126.66%
Pb 220.353†	-2.9	-0.00038	mg/L	0.000108	-0.00075	mg/L	0.000216	28.75%
Sb 206.836†	-9.0	-0.00291	mg/L	0.001460	-0.00582	mg/L	0.002920	50.19%
Se 196.026†	3.7	0.00274	mg/L	0.000375	0.00548	mg/L	0.000750	13.69%
Si 288.158†	4.0	0.00191	mg/L	0.005107	0.00381	mg/L	0.010214	268.06%
Sn 189.927†	1.2	0.00033	mg/L	0.000353	0.00066	mg/L	0.000707	107.40%
Sr 421.552†	29.7	0.00003	mg/L	0.000044	0.00007	mg/L	0.000088	126.05%
Ti 334.903†	-13.5	-0.00065	mg/L	0.000470	-0.00130	mg/L	0.000941	72.12%
Tl 190.801†	-0.1	-0.00003	mg/L	0.000807	-0.00005	mg/L	0.001614	>999.9%
V 292.402†	6.1	0.00006	mg/L	0.000058	0.00012	mg/L	0.000116	97.03%
Zn 206.200†	6.8	0.00191	mg/L	0.000124	0.00383	mg/L	0.000248	6.47%

Sequence No.: 51
Sample ID: VR37 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 366
Date Collected: 11/19/2012 5:07:22 PM
Data Type: Original

Nebulizer Parameters: VR37 C SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR37 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2619768.5	109.9	%	0.71				0.64%
ScR 361.383	341841.7	111.9	%	0.64				0.57%
Ag 328.068†	-105.5	-0.00061	mg/L	0.000154	-0.00305	mg/L	0.000769	25.22%
Al 308.215†	60407.1	36.15	mg/L	0.377	180.8	mg/L	1.88	1.04%
As 188.979†	-68.2	0.02588	mg/L	0.003012	0.1294	mg/L	0.01506	11.64%
B 249.677†	23.6	0.00319	mg/L	0.000786	0.01594	mg/L	0.003932	24.67%
Ba 233.527†	1359.8	0.3131	mg/L	0.00328	1.566	mg/L	0.0164	1.05%
Be 313.042†	653.8	0.00100	mg/L	0.000012	0.00500	mg/L	0.000059	1.18%
Ca 317.933†	178955.5	13.45	mg/L	0.122	67.27	mg/L	0.611	0.91%
Cd 228.802†	224.3	0.00734	mg/L	0.000087	0.03669	mg/L	0.000433	1.18%
Co 228.616†	1169.8	0.02938	mg/L	0.000324	0.1469	mg/L	0.00162	1.10%
Cr 267.716†	482.7	0.08210	mg/L	0.000160	0.4105	mg/L	0.00080	0.20%
Cu 324.752†	16569.8	0.07002	mg/L	0.000660	0.3501	mg/L	0.00330	0.94%
Fe 273.955†	90497.2	68.93	mg/L	0.807	344.7	mg/L	4.03	1.17%
K 766.490†	10509.7	5.509	mg/L	0.0454	27.54	mg/L	0.227	0.82%
Mg 279.077†	23993.1	17.60	mg/L	0.174	87.99	mg/L	0.869	0.99%
Mn 257.610†	45006.7	1.259	mg/L	0.0145	6.296	mg/L	0.0727	1.15%
Mo 202.031†	42.0	0.00204	mg/L	0.000065	0.01018	mg/L	0.000326	3.20%
Na 589.592†	6532.7	0.5597	mg/L	0.00656	2.799	mg/L	0.0328	1.17%
Na 330.237†	5.5	0.5588	mg/L	0.11382	2.794	mg/L	0.5691	20.37%
Ni 231.604†	222.9	0.05961	mg/L	0.000886	0.2981	mg/L	0.00443	1.49%
Pb 220.353†	2024.4	0.2771	mg/L	0.00278	1.385	mg/L	0.0139	1.00%
Sb 206.836†	-5.6	-0.00137	mg/L	0.000856	-0.00685	mg/L	0.004281	62.51%
Se 196.026†	4.0	0.00288	mg/L	0.001845	0.01440	mg/L	0.009225	64.08%
Si 288.158†	1944.4	0.9352	mg/L	0.00181	4.676	mg/L	0.0091	0.19%
Sn 189.927†	-19.0	-0.00310	mg/L	0.000289	-0.01550	mg/L	0.001445	9.33%
Sr 421.552†	92822.5	0.1085	mg/L	0.00109	0.5426	mg/L	0.00547	1.01%
Ti 334.903†	48714.7	2.345	mg/L	0.0227	11.73	mg/L	0.113	0.97%
Tl 190.801†	-14.5	0.00026	mg/L	0.002421	0.00130	mg/L	0.012104	928.07%
V 292.402†	18907.9	0.1541	mg/L	0.00099	0.7704	mg/L	0.00495	0.64%
Zn 206.200†	1850.9	0.5176	mg/L	0.00185	2.588	mg/L	0.0092	0.36%

Sequence No.: 52
Sample ID: VR37 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 367
Date Collected: 11/19/2012 5:11:22 PM
Data Type: Original

Nebulizer Parameters: VR37 D SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2615848.3	109.7	%	1.04				0.95%
ScR 361.383	345825.0	113.2	%	0.45				0.40%
Ag 328.068†	-1.6	0.00001	mg/L	0.000089	0.00006	mg/L	0.000443	717.34%
Al 308.215†	56177.5	33.62	mg/L	0.203	168.1	mg/L	1.01	0.60%
As 188.979†	-6.9	0.04275	mg/L	0.001816	0.2138	mg/L	0.00908	4.25%
B 249.677†	24.9	0.00340	mg/L	0.000835	0.01701	mg/L	0.004175	24.54%
Ba 233.527†	2676.4	0.6313	mg/L	0.00116	3.157	mg/L	0.0058	0.18%
Be 313.042†	694.5	0.00109	mg/L	0.000014	0.00545	mg/L	0.000072	1.31%
Ca 317.933†	184320.1	13.86	mg/L	0.072	69.29	mg/L	0.358	0.52%
Cd 228.802†	812.0	0.02746	mg/L	0.000075	0.1373	mg/L	0.00037	0.27%
Co 228.616†	628.4	0.01487	mg/L	0.000097	0.07435	mg/L	0.000485	0.65%
Cr 267.716†	278.8	0.04740	mg/L	0.000776	0.2370	mg/L	0.00388	1.64%
Cu 324.752†	13885.9	0.05817	mg/L	0.000196	0.2909	mg/L	0.00098	0.34%
Fe 273.955†	57640.4	43.91	mg/L	0.262	219.5	mg/L	1.31	0.60%
K 766.490†	5559.1	2.914	mg/L	0.0247	14.57	mg/L	0.124	0.85%
Mg 279.077†	13169.3	9.656	mg/L	0.0526	48.28	mg/L	0.263	0.54%
Mn 257.610†	84119.6	2.353	mg/L	0.0136	11.77	mg/L	0.068	0.58%
Mo 202.031†	37.9	0.00182	mg/L	0.000075	0.00910	mg/L	0.000374	4.10%
Na 589.592†	4266.3	0.3655	mg/L	0.00335	1.828	mg/L	0.0167	0.92%
Na 330.237†	12.3	0.4032	mg/L	0.15276	2.016	mg/L	0.7638	37.89%
Ni 231.604†	152.8	0.04089	mg/L	0.000592	0.2044	mg/L	0.00296	1.45%
Pb 220.353†	11321.9	1.523	mg/L	0.0051	7.615	mg/L	0.0253	0.33%
Sb 206.836†	22.3	0.00746	mg/L	0.001520	0.03730	mg/L	0.007601	20.37%
Se 196.026†	9.6	0.00705	mg/L	0.004308	0.03526	mg/L	0.021540	61.09%
Si 288.158†	1027.2	0.4942	mg/L	0.00314	2.471	mg/L	0.0157	0.63%
Sn 189.927†	-2.9	0.00121	mg/L	0.001081	0.00607	mg/L	0.005405	89.00%
Sr 421.552†	106601.1	0.1246	mg/L	0.00083	0.6231	mg/L	0.00413	0.66%
Ti 334.903†	34594.0	1.665	mg/L	0.0087	8.326	mg/L	0.0433	0.52%
Tl 190.801†	-3.8	0.00263	mg/L	0.003379	0.01315	mg/L	0.016895	128.47%
V 292.402†	9408.5	0.07635	mg/L	0.000209	0.3817	mg/L	0.00105	0.27%
Zn 206.200†	4511.2	1.262	mg/L	0.0033	6.309	mg/L	0.0166	0.26%

Sequence No.: 53
Sample ID: VR37 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 368
Date Collected: 11/19/2012 5:15:22 PM
Data Type: Original

Nebulizer Parameters: VR37 E SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR37 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2581442.1	108.3	%	0.38				0.35%
ScR 361.383	341845.7	111.9	%	1.22				1.09%
Ag 328.068†	380.9	0.00239	mg/L	0.000184	0.01196	mg/L	0.000921	7.70%
Al 308.215†	51329.1	30.72	mg/L	0.405	153.6	mg/L	2.03	1.32%
As 188.979†	52.8	0.06767	mg/L	0.002737	0.3383	mg/L	0.01368	4.04%
B 249.677†	39.4	0.00540	mg/L	0.000491	0.02701	mg/L	0.002453	9.08%
Ba 233.527†	2108.9	0.4959	mg/L	0.00485	2.479	mg/L	0.0242	0.98%
Be 313.042†	635.0	0.00099	mg/L	0.000034	0.00497	mg/L	0.000168	3.38%
Ca 317.933†	211665.2	15.91	mg/L	0.213	79.57	mg/L	1.067	1.34%
Cd 228.802†	1202.0	0.04058	mg/L	0.000389	0.2029	mg/L	0.00195	0.96%
Co 228.616†	691.2	0.01744	mg/L	0.000113	0.08720	mg/L	0.000565	0.65%
Cr 267.716†	288.6	0.04880	mg/L	0.000468	0.2440	mg/L	0.00234	0.96%
Cu 324.752†	27178.8	0.1125	mg/L	0.00049	0.5625	mg/L	0.00246	0.44%
Fe 273.955†	58512.7	44.57	mg/L	0.588	222.9	mg/L	2.94	1.32%
K 766.490†	6326.1	3.316	mg/L	0.0518	16.58	mg/L	0.259	1.56%
Mg 279.077†	16523.5	12.12	mg/L	0.176	60.60	mg/L	0.879	1.45%
Mn 257.610†	92315.6	2.583	mg/L	0.0362	12.91	mg/L	0.181	1.40%
Mo 202.031†	56.4	0.00276	mg/L	0.000229	0.01379	mg/L	0.001146	8.32%
Na 589.592†	3969.1	0.3401	mg/L	0.00274	1.700	mg/L	0.0137	0.80%
Na 330.237†	12.9	0.2393	mg/L	0.07835	1.196	mg/L	0.3918	32.74%
Ni 231.604†	151.6	0.04057	mg/L	0.000963	0.2029	mg/L	0.00481	2.37%
Pb 220.353†	19091.8	2.563	mg/L	0.0060	12.81	mg/L	0.030	0.24%
Sb 206.836†	67.5	0.02178	mg/L	0.001069	0.1089	mg/L	0.00534	4.91%
Se 196.026†	5.4	0.00394	mg/L	0.003299	0.01972	mg/L	0.016495	83.65%
Si 288.158†	1105.6	0.5321	mg/L	0.00603	2.661	mg/L	0.0302	1.13%
Sn 189.927†	12.4	0.00558	mg/L	0.000625	0.02789	mg/L	0.003126	11.21%
Sr 421.552†	119717.1	0.1400	mg/L	0.00200	0.6998	mg/L	0.01001	1.43%
Ti 334.903†	27120.6	1.305	mg/L	0.0189	6.526	mg/L	0.0944	1.45%
Tl 190.801†	-8.8	0.00047	mg/L	0.002217	0.00235	mg/L	0.011086	472.37%
V 292.402†	11285.4	0.09218	mg/L	0.000238	0.4609	mg/L	0.00119	0.26%
Zn 206.200†	5629.1	1.574	mg/L	0.0142	7.872	mg/L	0.0711	0.90%

Sequence No.: 54
Sample ID: VR37 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 369
Date Collected: 11/19/2012 5:19:22 PM
Data Type: Original

Nebulizer Parameters: VR37 A-L SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 A-L SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2550822.8	107.0	%	0.25				0.24%
ScR 361.383	342139.3	112.0	%	1.57				1.40%
Ag 328.068†	-58.8	-0.00036	mg/L	0.000193	-0.00898	mg/L	0.004825	53.75%
Al 308.215†	17485.8	10.47	mg/L	0.178	261.6	mg/L	4.46	1.71%
As 188.979†	-21.1	-0.00045	mg/L	0.001137	-0.01135	mg/L	0.028424	250.44%
B 249.677†	-0.0	-0.00001	mg/L	0.000598	-0.00025	mg/L	0.014953	>999.9%
Ba 233.527†	310.2	0.07244	mg/L	0.000686	1.811	mg/L	0.0172	0.95%
Be 313.042†	152.2	0.00024	mg/L	0.000019	0.00593	mg/L	0.000464	7.82%
Ca 317.933†	21982.1	1.653	mg/L	0.0272	41.32	mg/L	0.680	1.65%
Cd 228.802†	3.3	0.00011	mg/L	0.000121	0.00280	mg/L	0.003027	107.97%
Co 228.616†	147.9	0.00345	mg/L	0.000104	0.08631	mg/L	0.002591	3.00%
Cr 267.716†	62.6	0.01069	mg/L	0.000533	0.2673	mg/L	0.01332	4.98%
Cu 324.752†	2130.7	0.00901	mg/L	0.000114	0.2253	mg/L	0.00286	1.27%
Fe 273.955†	12537.9	9.550	mg/L	0.1610	238.8	mg/L	4.02	1.69%
K 766.490†	846.3	0.4436	mg/L	0.00385	11.09	mg/L	0.096	0.87%
Mg 279.077†	2907.3	2.132	mg/L	0.0290	53.29	mg/L	0.726	1.36%
Mn 257.610†	5799.6	0.1622	mg/L	0.00302	4.056	mg/L	0.0754	1.86%
Mo 202.031†	1.5	0.00006	mg/L	0.000095	0.00151	mg/L	0.002376	157.49%
Na 589.592†	1470.9	0.1260	mg/L	0.00114	3.151	mg/L	0.0284	0.90%
Na 330.237†	3.6	0.2120	mg/L	0.23302	5.300	mg/L	5.8255	109.91%
Ni 231.604†	36.7	0.00982	mg/L	0.000988	0.2456	mg/L	0.02469	10.05%
Pb 220.353†	43.5	0.00795	mg/L	0.000511	0.1987	mg/L	0.01277	6.43%
Sb 206.836†	-5.6	-0.00167	mg/L	0.002553	-0.04178	mg/L	0.063827	152.78%
Se 196.026†	3.8	0.00280	mg/L	0.001219	0.07012	mg/L	0.030484	43.47%
Si 288.158†	662.4	0.3182	mg/L	0.00514	7.954	mg/L	0.1284	1.61%
Sn 189.927†	-4.9	-0.00106	mg/L	0.000465	-0.02653	mg/L	0.011630	43.84%
Sr 421.552†	16871.6	0.01972	mg/L	0.000319	0.4931	mg/L	0.00797	1.62%
Ti 334.903†	8818.5	0.4246	mg/L	0.00780	10.61	mg/L	0.195	1.84%
Tl 190.801†	-0.7	0.00060	mg/L	0.002288	0.01507	mg/L	0.057205	379.53%
V 292.402†	2449.0	0.01987	mg/L	0.000123	0.4967	mg/L	0.00308	0.62%
Zn 206.200†	142.1	0.03973	mg/L	0.000705	0.9933	mg/L	0.01761	1.77%

Sequence No.: 55
Sample ID: VR37 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 370
Date Collected: 11/19/2012 5:23:22 PM
Data Type: Original

Nebulizer Parameters: VR37 A SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2629789.1	110.3	%	0.14				0.13%
ScR 361.383	343511.1	112.5	%	1.17				1.04%
Ag 328.068†	-130.8	-0.00079	mg/L	0.000040	-0.00393	mg/L	0.000202	5.15%
Al 308.215†	82131.2	49.15	mg/L	0.617	245.8	mg/L	3.08	1.25%
As 188.979†	-89.7	0.00309	mg/L	0.001245	0.01546	mg/L	0.006225	40.26%
B 249.677†	17.7	0.00241	mg/L	0.000288	0.01204	mg/L	0.001439	11.95%
Ba 233.527†	1440.5	0.3364	mg/L	0.00355	1.682	mg/L	0.0177	1.05%
Be 313.042†	737.6	0.00115	mg/L	0.000042	0.00576	mg/L	0.000208	3.61%
Ca 317.933†	103504.3	7.782	mg/L	0.1335	38.91	mg/L	0.667	1.72%
Cd 228.802†	28.4	0.00093	mg/L	0.000136	0.00466	mg/L	0.000681	14.60%
Co 228.616†	651.0	0.01495	mg/L	0.000182	0.07474	mg/L	0.000909	1.22%
Cr 267.716†	260.5	0.04460	mg/L	0.000808	0.2230	mg/L	0.00404	1.81%
Cu 324.752†	9853.1	0.04168	mg/L	0.000249	0.2084	mg/L	0.00125	0.60%
Fe 273.955†	58456.1	44.53	mg/L	0.566	222.6	mg/L	2.83	1.27%
K 766.490†	4299.0	2.253	mg/L	0.0450	11.27	mg/L	0.225	2.00%
Mg 279.077†	12808.8	9.391	mg/L	0.1420	46.95	mg/L	0.710	1.51%
Mn 257.610†	26907.7	0.7527	mg/L	0.01085	3.764	mg/L	0.0543	1.44%
Mo 202.031†	17.5	0.00083	mg/L	0.000206	0.00413	mg/L	0.001031	24.97%
Na 589.592†	6178.4	0.5294	mg/L	0.00867	2.647	mg/L	0.0434	1.64%
Na 330.237†	2.0	0.4634	mg/L	0.33854	2.317	mg/L	1.6927	73.06%
Ni 231.604†	145.2	0.03885	mg/L	0.000431	0.1942	mg/L	0.00215	1.11%
Pb 220.353†	178.0	0.03381	mg/L	0.000546	0.1690	mg/L	0.00273	1.61%
Sb 206.836†	-12.5	-0.00341	mg/L	0.003590	-0.01705	mg/L	0.017950	105.25%
Se 196.026†	11.4	0.00836	mg/L	0.002955	0.04181	mg/L	0.014776	35.34%
Si 288.158†	3061.2	1.470	mg/L	0.0213	7.351	mg/L	0.1063	1.45%
Sn 189.927†	-12.9	-0.00221	mg/L	0.001069	-0.01107	mg/L	0.005344	48.29%
Sr 421.552†	78783.6	0.09210	mg/L	0.001150	0.4605	mg/L	0.00575	1.25%
Ti 334.903†	41146.4	1.981	mg/L	0.0267	9.905	mg/L	0.1336	1.35%
Tl 190.801†	-10.9	-0.00045	mg/L	0.000485	-0.00226	mg/L	0.002425	107.29%
V 292.402†	11136.8	0.09026	mg/L	0.000069	0.4513	mg/L	0.00034	0.08%
Zn 206.200†	627.8	0.1756	mg/L	0.00301	0.8779	mg/L	0.01504	1.71%

Sequence No.: 56
Sample ID: VR37 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 371
Date Collected: 11/19/2012 5:27:22 PM
Data Type: Original

Nebulizer Parameters: VR37 ADUP SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2596362.3	108.9	%	0.28				0.26%
ScR 361.383	347543.1	113.8	%	1.26				1.10%
Ag 328.068†	-165.6	-0.00100	mg/L	0.000235	-0.00501	mg/L	0.001177	23.50%
Al 308.215†	85391.7	51.11	mg/L	0.878	255.5	mg/L	4.39	1.72%
As 188.979†	-86.9	0.00599	mg/L	0.002586	0.02995	mg/L	0.012930	43.18%
B 249.677†	16.7	0.00226	mg/L	0.000307	0.01132	mg/L	0.001537	13.58%
Ba 233.527†	1466.6	0.3422	mg/L	0.00601	1.711	mg/L	0.0301	1.76%
Be 313.042†	767.4	0.00120	mg/L	0.000012	0.00600	mg/L	0.000062	1.04%
Ca 317.933†	100779.1	7.577	mg/L	0.1241	37.88	mg/L	0.620	1.64%
Cd 228.802†	30.9	0.00099	mg/L	0.000169	0.00493	mg/L	0.000846	17.17%
Co 228.616†	669.1	0.01537	mg/L	0.000360	0.07686	mg/L	0.001798	2.34%
Cr 267.716†	276.1	0.04729	mg/L	0.000147	0.2365	mg/L	0.00074	0.31%
Cu 324.752†	10116.1	0.04285	mg/L	0.000619	0.2143	mg/L	0.00309	1.44%
Fe 273.955†	61606.4	46.93	mg/L	0.813	234.6	mg/L	4.06	1.73%
K 766.490†	4242.5	2.224	mg/L	0.0460	11.12	mg/L	0.230	2.07%
Mg 279.077†	13252.2	9.715	mg/L	0.1452	48.58	mg/L	0.726	1.49%
Mn 257.610†	28703.1	0.8029	mg/L	0.01348	4.015	mg/L	0.0674	1.68%
Mo 202.031†	24.2	0.00117	mg/L	0.000174	0.00587	mg/L	0.000869	14.80%
Na 589.592†	5616.2	0.4812	mg/L	0.00789	2.406	mg/L	0.0395	1.64%
Na 330.237†	2.0	0.4704	mg/L	0.24865	2.352	mg/L	1.2433	52.86%
Ni 231.604†	149.1	0.03988	mg/L	0.002019	0.1994	mg/L	0.01010	5.06%
Pb 220.353†	170.7	0.03319	mg/L	0.000767	0.1660	mg/L	0.00384	2.31%
Sb 206.836†	-9.2	-0.00240	mg/L	0.000693	-0.01201	mg/L	0.003463	28.82%
Se 196.026†	10.8	0.00797	mg/L	0.003605	0.03983	mg/L	0.018023	45.25%
Si 288.158†	1977.5	0.9502	mg/L	0.01199	4.751	mg/L	0.0600	1.26%
Sn 189.927†	-14.6	-0.00270	mg/L	0.001028	-0.01349	mg/L	0.005138	38.10%
Sr 421.552†	85479.9	0.09993	mg/L	0.001642	0.4996	mg/L	0.00821	1.64%
Ti 334.903†	42027.3	2.024	mg/L	0.0329	10.12	mg/L	0.165	1.63%
Tl 190.801†	-14.6	-0.00180	mg/L	0.000849	-0.00900	mg/L	0.004245	47.16%
V 292.402†	11093.2	0.08981	mg/L	0.001274	0.4491	mg/L	0.00637	1.42%
Zn 206.200†	656.5	0.1836	mg/L	0.00297	0.9179	mg/L	0.01483	1.62%

Sequence No.: 57
Sample ID: VR37 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 372
Date Collected: 11/19/2012 5:31:22 PM
Data Type: Original

Nebulizer Parameters: VR37 ASPK SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2628701.2	110.2	%	0.16				0.14%
ScR 361.383	347123.0	113.7	%	0.74				0.65%
Ag 328.068†	31774.6	0.1974	mg/L	0.00072	0.9869	mg/L	0.00360	0.36%
Al 308.215†	86272.2	51.63	mg/L	0.552	258.2	mg/L	2.76	1.07%
As 188.979†	1211.2	0.7791	mg/L	0.00508	3.896	mg/L	0.0254	0.65%
B 249.677†	15.3	0.00166	mg/L	0.000253	0.00830	mg/L	0.001266	15.26%
Ba 233.527†	4702.3	1.114	mg/L	0.0076	5.571	mg/L	0.0382	0.69%
Be 313.042†	117287.1	0.1899	mg/L	0.00255	0.9494	mg/L	0.01275	1.34%
Ca 317.933†	155395.5	11.68	mg/L	0.132	58.42	mg/L	0.658	1.13%
Cd 228.802†	6043.0	0.2020	mg/L	0.00076	1.010	mg/L	0.0038	0.38%
Co 228.616†	7461.9	0.2173	mg/L	0.00088	1.086	mg/L	0.0044	0.41%
Cr 267.716†	1422.1	0.2397	mg/L	0.00198	1.198	mg/L	0.0099	0.83%
Cu 324.752†	59924.6	0.2460	mg/L	0.00066	1.230	mg/L	0.0033	0.27%
Fe 273.955†	62184.6	47.37	mg/L	0.485	236.8	mg/L	2.42	1.02%
K 766.490†	11447.8	6.001	mg/L	0.0639	30.00	mg/L	0.319	1.06%
Mg 279.077†	19178.6	14.07	mg/L	0.103	70.36	mg/L	0.513	0.73%
Mn 257.610†	34203.8	0.9569	mg/L	0.01035	4.785	mg/L	0.0518	1.08%
Mo 202.031†	28.0	0.00132	mg/L	0.000019	0.00659	mg/L	0.000097	1.47%
Na 589.592†	50898.0	4.361	mg/L	0.0476	21.80	mg/L	0.238	1.09%
Na 330.237†	112.1	4.391	mg/L	0.0401	21.96	mg/L	0.201	0.91%
Ni 231.604†	869.1	0.2321	mg/L	0.00136	1.161	mg/L	0.0068	0.58%
Pb 220.353†	5920.4	0.8036	mg/L	0.00203	4.018	mg/L	0.0101	0.25%
Sb 206.836†	-6.8	-0.00356	mg/L	0.001852	-0.01781	mg/L	0.009258	51.98%
Se 196.026†	1054.8	0.7807	mg/L	0.00383	3.903	mg/L	0.0192	0.49%
Si 288.158†	2148.7	1.034	mg/L	0.0059	5.168	mg/L	0.0296	0.57%
Sn 189.927†	-23.1	-0.00443	mg/L	0.000470	-0.02214	mg/L	0.002352	10.62%
Sr 421.552†	231703.0	0.2709	mg/L	0.00297	1.354	mg/L	0.0149	1.10%
Ti 334.903†	45597.7	2.195	mg/L	0.0231	10.98	mg/L	0.115	1.05%
Tl 190.801†	1734.7	0.7615	mg/L	0.00522	3.808	mg/L	0.0261	0.69%
V 292.402†	34619.3	0.2862	mg/L	0.00069	1.431	mg/L	0.0034	0.24%
Zn 206.200†	1308.6	0.3660	mg/L	0.00193	1.830	mg/L	0.0097	0.53%

Sequence No.: 58 ZZZZZZ
Sample ID: ~~VR37 APOST SWC~~ BA
Analyst: BA
Dilution: 5.000000X 11/20/12

Autosampler Location: 373
Date Collected: 11/19/2012 5:35:22 PM
Data Type: Original

Nebulizer Parameters: VR37 APOST SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2631275.2	110.3	%	0.27				0.25%
ScR 361.383	343487.6	112.5	%	0.61				0.54%
Ag 328.068†	81581.1	0.5067	mg/L	0.00340	2.534	mg/L	0.0170	0.67%
Al 308.215†	87121.8	52.13	mg/L	0.431	260.7	mg/L	2.16	0.83%
As 188.979†	3268.5	1.992	mg/L	0.0096	9.959	mg/L	0.0480	0.48%
B 249.677†	25.1	0.00241	mg/L	0.000599	0.01203	mg/L	0.002994	24.88%
Ba 233.527†	10084.7	2.398	mg/L	0.0138	11.99	mg/L	0.069	0.57%
Be 313.042†	300554.1	0.4866	mg/L	0.00124	2.433	mg/L	0.0062	0.25%
Ca 317.933†	234001.6	17.59	mg/L	0.116	87.97	mg/L	0.578	0.66%
Cd 228.802†	14938.4	0.4989	mg/L	0.00265	2.494	mg/L	0.0132	0.53%
Co 228.616†	17343.0	0.5118	mg/L	0.00295	2.559	mg/L	0.0148	0.58%
Cr 267.716†	3235.1	0.5440	mg/L	0.00596	2.720	mg/L	0.0298	1.10%
Cu 324.752†	137089.3	0.5609	mg/L	0.00381	2.804	mg/L	0.0190	0.68%
Fe 273.955†	61599.6	46.92	mg/L	0.322	234.6	mg/L	1.61	0.69%
K 766.490†	22666.1	11.88	mg/L	0.148	59.41	mg/L	0.739	1.24%
Mg 279.077†	27463.9	20.16	mg/L	0.157	100.8	mg/L	0.78	0.78%
Mn 257.610†	43882.7	1.228	mg/L	0.0076	6.139	mg/L	0.0379	0.62%
Mo 202.031†	40.5	0.00188	mg/L	0.000366	0.00942	mg/L	0.001832	19.45%
Na 589.592†	119767.2	10.26	mg/L	0.044	51.31	mg/L	0.219	0.43%
Na 330.237†	280.9	10.29	mg/L	0.198	51.46	mg/L	0.989	1.92%
Ni 231.604†	2013.4	0.5377	mg/L	0.00414	2.689	mg/L	0.0207	0.77%
Pb 220.353†	14374.1	1.936	mg/L	0.0098	9.682	mg/L	0.0491	0.51%
Sb 206.836†	12.7	-0.00062	mg/L	0.001992	-0.00310	mg/L	0.009960	321.77%
Se 196.026†	2677.9	1.982	mg/L	0.0103	9.910	mg/L	0.0517	0.52%
Si 288.158†	3151.9	1.517	mg/L	0.0126	7.584	mg/L	0.0629	0.83%
Sn 189.927†	-30.7	-0.00570	mg/L	0.001161	-0.02851	mg/L	0.005806	20.37%
Sr 421.552†	499143.4	0.5835	mg/L	0.00343	2.918	mg/L	0.0171	0.59%
Ti 334.903†	42091.7	2.026	mg/L	0.0149	10.13	mg/L	0.074	0.73%
Tl 190.801†	4444.6	1.944	mg/L	0.0100	9.721	mg/L	0.0498	0.51%
V 292.402†	71133.3	0.5914	mg/L	0.00306	2.957	mg/L	0.0153	0.52%
Zn 206.200†	2407.2	0.6733	mg/L	0.00263	3.366	mg/L	0.0131	0.39%

Sequence No.: 59
Sample ID: VR37 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 374
Date Collected: 11/19/2012 5:39:23 PM
Data Type: Original

Nebulizer Parameters: VR37 MB1SPK SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR37 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2638718.0	110.7	%	0.33				0.30%
ScR 361.383	342007.7	112.0	%	1.08				0.96%
Ag 328.068†	81641.4	0.5071	mg/L	0.00408	1.014	mg/L	0.0082	0.81%
Al 308.215†	3243.7	1.934	mg/L	0.0190	3.869	mg/L	0.0380	0.98%
As 188.979†	3315.4	1.962	mg/L	0.0215	3.924	mg/L	0.0430	1.10%
B 249.677†	4.1	-0.00045	mg/L	0.000181	-0.00091	mg/L	0.000363	39.90%
Ba 233.527†	8576.9	2.046	mg/L	0.0168	4.092	mg/L	0.0335	0.82%
Be 313.042†	298413.6	0.4832	mg/L	0.00318	0.9664	mg/L	0.00636	0.66%
Ca 317.933†	126587.1	9.517	mg/L	0.0796	19.03	mg/L	0.159	0.84%
Cd 228.802†	14701.0	0.4910	mg/L	0.00466	0.9819	mg/L	0.00933	0.95%
Co 228.616†	16634.4	0.4952	mg/L	0.00483	0.9905	mg/L	0.00967	0.98%
Cr 267.716†	2970.4	0.4988	mg/L	0.00459	0.9975	mg/L	0.00918	0.92%
Cu 324.752†	121681.2	0.4965	mg/L	0.00520	0.9931	mg/L	0.01040	1.05%
Fe 273.955†	2505.8	1.905	mg/L	0.0172	3.811	mg/L	0.0344	0.90%
K 766.490†	18140.0	9.509	mg/L	0.0839	19.02	mg/L	0.168	0.88%
Mg 279.077†	13412.0	9.858	mg/L	0.0931	19.72	mg/L	0.186	0.94%
Mn 257.610†	17078.8	0.4781	mg/L	0.00456	0.9562	mg/L	0.00911	0.95%
Mo 202.031†	17.7	0.00079	mg/L	0.000172	0.00158	mg/L	0.000345	21.76%
Na 589.592†	113334.5	9.710	mg/L	0.0573	19.42	mg/L	0.115	0.59%
Na 330.237†	280.0	9.854	mg/L	0.0767	19.71	mg/L	0.153	0.78%
Ni 231.604†	1881.7	0.5025	mg/L	0.00454	1.005	mg/L	0.0091	0.90%
Pb 220.353†	14134.4	1.894	mg/L	0.0195	3.788	mg/L	0.0391	1.03%
Sb 206.836†	4.7	-0.00380	mg/L	0.001056	-0.00759	mg/L	0.002112	27.81%
Se 196.026†	2620.5	1.940	mg/L	0.0217	3.879	mg/L	0.0434	1.12%
Si 288.158†	-1.2	0.00244	mg/L	0.004148	0.00487	mg/L	0.008295	170.25%
Sn 189.927†	-17.8	-0.00353	mg/L	0.001054	-0.00707	mg/L	0.002107	29.81%
Sr 421.552†	419726.0	0.4907	mg/L	0.00385	0.9813	mg/L	0.00770	0.79%
Ti 334.903†	15.6	0.00020	mg/L	0.000273	0.00039	mg/L	0.000546	138.52%
Tl 190.801†	4440.1	1.938	mg/L	0.0181	3.876	mg/L	0.0363	0.94%
V 292.402†	58625.4	0.4898	mg/L	0.00473	0.9795	mg/L	0.00947	0.97%
Zn 206.200†	1781.8	0.4984	mg/L	0.00484	0.9968	mg/L	0.00968	0.97%

Sequence No.: 60
Sample ID: CV 12
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 5:43:24 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	2593067.4	108.7	%	0.93				0.85%
ScR 361.383	333501.5	109.2	%	1.07				0.98%
Ag 328.068†	164183.7	1.020	mg/L	0.0064	1.020	mg/L	0.0064	0.62%
Al 308.215†	3297.7	1.941	mg/L	0.0259	1.941	mg/L	0.0259	1.34%
As 188.979†	3340.6	2.001	mg/L	0.0205	2.001	mg/L	0.0205	1.02%
B 249.677†	7042.3	0.9710	mg/L	0.01276	0.9710	mg/L	0.01276	1.31%
Ba 233.527†	4290.9	1.023	mg/L	0.0130	1.023	mg/L	0.0130	1.27%
Be 313.042†	580840.1	0.9405	mg/L	0.01135	0.9405	mg/L	0.01135	1.21%
Ca 317.933†	24990.8	1.879	mg/L	0.0213	1.879	mg/L	0.0213	1.13%
Cd 228.802†	29045.0	0.9827	mg/L	0.00754	0.9827	mg/L	0.00754	0.77%
Co 228.616†	33290.6	0.9897	mg/L	0.00665	0.9897	mg/L	0.00665	0.67%
Cr 267.716†	5938.9	0.9988	mg/L	0.01252	0.9988	mg/L	0.01252	1.25%
Cu 324.752†	239573.9	0.9771	mg/L	0.00223	0.9771	mg/L	0.00223	0.23%
Fe 273.955†	2528.8	1.919	mg/L	0.0278	1.919	mg/L	0.0278	1.45%
K 766.490†	36808.8	19.29	mg/L	0.259	19.29	mg/L	0.259	1.34%
Mg 279.077†	2645.5	1.951	mg/L	0.0278	1.951	mg/L	0.0278	1.42%
Mn 257.610†	33241.3	0.9302	mg/L	0.01160	0.9302	mg/L	0.01160	1.25%
Mo 202.031†	18297.1	0.9510	mg/L	0.00513	0.9510	mg/L	0.00513	0.54%
Na 589.592†	580355.0	49.72	mg/L	0.612	49.72	mg/L	0.612	1.23%
Na 330.237†	1410.4	50.35	mg/L	0.650	50.35	mg/L	0.650	1.29%
Ni 231.604†	3754.1	1.004	mg/L	0.0115	1.004	mg/L	0.0115	1.14%
Pb 220.353†	14304.4	1.917	mg/L	0.0111	1.917	mg/L	0.0111	0.58%
Sb 206.836†	6386.6	2.033	mg/L	0.0188	2.033	mg/L	0.0188	0.93%
Se 196.026†	2644.1	1.957	mg/L	0.0184	1.957	mg/L	0.0184	0.94%
Si 288.158†	4090.1	1.962	mg/L	0.0254	1.962	mg/L	0.0254	1.30%
Sn 189.927†	3558.0	0.9567	mg/L	0.01086	0.9567	mg/L	0.01086	1.14%
Sr 421.552†	829810.2	0.9701	mg/L	0.01169	0.9701	mg/L	0.01169	1.21%
Ti 334.903†	19670.7	0.9462	mg/L	0.00945	0.9462	mg/L	0.00945	1.00%
Tl 190.801†	4563.2	1.988	mg/L	0.0199	1.988	mg/L	0.0199	1.00%
V 292.402†	120381.4	1.006	mg/L	0.0062	1.006	mg/L	0.0062	0.61%
Zn 206.200†	3653.1	1.021	mg/L	0.0157	1.021	mg/L	0.0157	1.53%

Sequence No.: 61
Sample ID: CB 12
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 5:48:31 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2558241.7	107.3	%	0.50				0.46%
ScR 361.383	336458.4	110.2	%	1.69				1.53%
Ag 328.068†	35.5	0.00022	mg/L	0.000184	0.00022	mg/L	0.000184	83.65%
Al 308.215†	7.9	0.00473	mg/L	0.000504	0.00473	mg/L	0.000504	10.64%
As 188.979†	2.2	0.00130	mg/L	0.002501	0.00130	mg/L	0.002501	192.57%
B 249.677†	7.1	0.00098	mg/L	0.000935	0.00098	mg/L	0.000935	95.33%
Ba 233.527†	-0.2	-0.00006	mg/L	0.000752	-0.00006	mg/L	0.000752	>999.9%
Be 313.042†	50.8	0.00008	mg/L	0.000074	0.00008	mg/L	0.000074	89.88%
Ca 317.933†	-12.6	-0.00095	mg/L	0.000852	-0.00095	mg/L	0.000852	90.11%
Cd 228.802†	0.7	0.00002	mg/L	0.000037	0.00002	mg/L	0.000037	220.26%
Co 228.616†	3.8	0.00011	mg/L	0.000082	0.00011	mg/L	0.000082	72.95%
Cr 267.716†	8.9	0.00150	mg/L	0.000372	0.00150	mg/L	0.000372	24.77%
Cu 324.752†	24.8	0.00010	mg/L	0.000122	0.00010	mg/L	0.000122	121.12%
Fe 273.955†	1.8	0.00134	mg/L	0.000367	0.00134	mg/L	0.000367	27.30%
K 766.490†	-49.7	-0.02607	mg/L	0.006132	-0.02607	mg/L	0.006132	23.52%
Mg 279.077†	-4.4	-0.00326	mg/L	0.000615	-0.00326	mg/L	0.000615	18.84%
Mn 257.610†	-0.4	-0.00001	mg/L	0.000148	-0.00001	mg/L	0.000148	>999.9%
Mo 202.031†	14.5	0.00075	mg/L	0.000032	0.00075	mg/L	0.000032	4.23%
Na 589.592†	176.8	0.01515	mg/L	0.004998	0.01515	mg/L	0.004998	32.99%
Na 330.237†	3.9	0.1390	mg/L	0.11768	0.1390	mg/L	0.11768	84.64%
Ni 231.604†	9.3	0.00248	mg/L	0.000554	0.00248	mg/L	0.000554	22.34%
Pb 220.353†	-6.6	-0.00088	mg/L	0.000347	-0.00088	mg/L	0.000347	39.55%
Sb 206.836†	1.2	0.00038	mg/L	0.000838	0.00038	mg/L	0.000838	222.77%
Se 196.026†	3.9	0.00291	mg/L	0.001250	0.00291	mg/L	0.001250	43.01%
Si 288.158†	1.0	0.00048	mg/L	0.001771	0.00048	mg/L	0.001771	370.74%
Sn 189.927†	2.7	0.00073	mg/L	0.000090	0.00073	mg/L	0.000090	12.41%
Sr 421.552†	76.4	0.00009	mg/L	0.000086	0.00009	mg/L	0.000086	95.81%
Ti 334.903†	6.9	0.00033	mg/L	0.000603	0.00033	mg/L	0.000603	180.86%
Tl 190.801†	-0.4	-0.00017	mg/L	0.001418	-0.00017	mg/L	0.001418	810.22%
V 292.402†	-1.1	-0.00000	mg/L	0.000044	-0.00000	mg/L	0.000044	>999.9%
Zn 206.200†	-0.6	-0.00017	mg/L	0.000122	-0.00017	mg/L	0.000122	70.81%

Sequence No.: 62
Sample ID: VR37 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 375
Date Collected: 11/19/2012 5:52:46 PM
Data Type: Original

Nebulizer Parameters: VR37 F SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2595004.6	108.8	%	0.33				0.30%
ScR 361.383	345346.3	113.1	%	0.92				0.81%
Ag 328.068†	-1.5	0.00002	mg/L	0.000213	0.00011	mg/L	0.001065	982.23%
Al 308.215†	91244.7	54.61	mg/L	0.706	273.0	mg/L	3.53	1.29%
As 188.979†	0.1	0.07176	mg/L	0.000830	0.3588	mg/L	0.00415	1.16%
B 249.677†	48.6	0.00664	mg/L	0.000610	0.03318	mg/L	0.003052	9.20%
Ba 233.527†	3419.4	0.8052	mg/L	0.00630	4.026	mg/L	0.0315	0.78%
Be 313.042†	1075.5	0.00169	mg/L	0.000049	0.00845	mg/L	0.000247	2.92%
Ca 317.933†	171831.0	12.92	mg/L	0.172	64.59	mg/L	0.860	1.33%
Cd 228.802†	889.7	0.02991	mg/L	0.000399	0.1496	mg/L	0.00200	1.34%
Co 228.616†	1099.1	0.02692	mg/L	0.000389	0.1346	mg/L	0.00195	1.45%
Cr 267.716†	435.3	0.07410	mg/L	0.001230	0.3705	mg/L	0.00615	1.66%
Cu 324.752†	19328.5	0.08109	mg/L	0.000453	0.4055	mg/L	0.00227	0.56%
Fe 273.955†	85065.9	64.80	mg/L	0.932	324.0	mg/L	4.66	1.44%
K 766.490†	13430.3	7.040	mg/L	0.1202	35.20	mg/L	0.601	1.71%
Mg 279.077†	18435.8	13.52	mg/L	0.192	67.58	mg/L	0.962	1.42%
Mn 257.610†	128954.1	3.608	mg/L	0.0506	18.04	mg/L	0.253	1.40%
Mo 202.031†	44.9	0.00219	mg/L	0.000091	0.01094	mg/L	0.000455	4.16%
Na 589.592†	6329.0	0.5422	mg/L	0.00799	2.711	mg/L	0.0399	1.47%
Na 330.237†	14.3	0.5701	mg/L	0.18905	2.851	mg/L	0.9452	33.16%
Ni 231.604†	232.1	0.06210	mg/L	0.001235	0.3105	mg/L	0.00617	1.99%
Pb 220.353†	8930.7	1.207	mg/L	0.0152	6.034	mg/L	0.0758	1.26%
Sb 206.836†	10.5	0.00380	mg/L	0.001058	0.01898	mg/L	0.005290	27.87%
Se 196.026†	17.2	0.01267	mg/L	0.002474	0.06337	mg/L	0.012369	19.52%
Si 288.158†	1604.8	0.7718	mg/L	0.00423	3.859	mg/L	0.0211	0.55%
Sn 189.927†	-6.6	0.00024	mg/L	0.001086	0.00118	mg/L	0.005428	459.99%
Sr 421.552†	100555.3	0.1176	mg/L	0.00143	0.5878	mg/L	0.00714	1.21%
Ti 334.903†	52620.6	2.533	mg/L	0.0339	12.67	mg/L	0.170	1.34%
Tl 190.801†	-13.8	0.00031	mg/L	0.000890	0.00154	mg/L	0.004450	288.59%
V 292.402†	13028.9	0.1055	mg/L	0.00065	0.5277	mg/L	0.00327	0.62%
Zn 206.200†	5629.4	1.574	mg/L	0.0141	7.872	mg/L	0.0704	0.89%

Sequence No.: 63
Sample ID: VR37 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 376
Date Collected: 11/19/2012 5:56:48 PM
Data Type: Original

Nebulizer Parameters: VR37 G SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR37 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2597212.1	108.9	%	0.25				0.23%
ScR 361.383	346005.4	113.3	%	1.65				1.45%
Ag 328.068†	233.1	0.00148	mg/L	0.000279	0.00742	mg/L	0.001394	18.79%
Al 308.215†	106138.1	63.52	mg/L	0.914	317.6	mg/L	4.57	1.44%
As 188.979†	126.2	0.1491	mg/L	0.00169	0.7454	mg/L	0.00843	1.13%
B 249.677†	57.3	0.00784	mg/L	0.000238	0.03921	mg/L	0.001191	3.04%
Ba 233.527†	4515.1	1.066	mg/L	0.0147	5.329	mg/L	0.0737	1.38%
Be 313.042†	1079.1	0.00169	mg/L	0.000048	0.00845	mg/L	0.000238	2.81%
Ca 317.933†	255517.0	19.21	mg/L	0.282	96.05	mg/L	1.411	1.47%
Cd 228.802†	2356.5	0.07962	mg/L	0.000727	0.3981	mg/L	0.00364	0.91%
Co 228.616†	1129.1	0.02753	mg/L	0.000440	0.1376	mg/L	0.00220	1.60%
Cr 267.716†	443.8	0.07538	mg/L	0.000883	0.3769	mg/L	0.00441	1.17%
Cu 324.752†	39727.0	0.1645	mg/L	0.00095	0.8225	mg/L	0.00475	0.58%
Fe 273.955†	91678.6	69.83	mg/L	0.916	349.2	mg/L	4.58	1.31%
K 766.490†	11219.4	5.881	mg/L	0.0819	29.41	mg/L	0.410	1.39%
Mg 279.077†	22501.9	16.50	mg/L	0.237	82.51	mg/L	1.187	1.44%
Mn 257.610†	113144.2	3.166	mg/L	0.0439	15.83	mg/L	0.219	1.39%
Mo 202.031†	64.6	0.00315	mg/L	0.000131	0.01573	mg/L	0.000656	4.17%
Na 589.592†	7813.5	0.6694	mg/L	0.00737	3.347	mg/L	0.0369	1.10%
Na 330.237†	28.4	0.5144	mg/L	0.03851	2.572	mg/L	0.1926	7.49%
Ni 231.604†	236.9	0.06337	mg/L	0.000545	0.3169	mg/L	0.00272	0.86%
Pb 220.353†	26420.9	3.552	mg/L	0.0274	17.76	mg/L	0.137	0.77%
Sb 206.836†	56.9	0.01877	mg/L	0.001367	0.09383	mg/L	0.006833	7.28%
Se 196.026†	15.0	0.01104	mg/L	0.001795	0.05522	mg/L	0.008977	16.26%
Si 288.158†	1791.6	0.8620	mg/L	0.00877	4.310	mg/L	0.0438	1.02%
Sn 189.927†	19.4	0.00808	mg/L	0.000279	0.04039	mg/L	0.001395	3.45%
Sr 421.552†	142720.6	0.1668	mg/L	0.00250	0.8342	mg/L	0.01248	1.50%
Ti 334.903†	54800.4	2.638	mg/L	0.0391	13.19	mg/L	0.195	1.48%
Tl 190.801†	-7.7	0.00346	mg/L	0.000860	0.01728	mg/L	0.004298	24.87%
V 292.402†	15447.1	0.1254	mg/L	0.00089	0.6268	mg/L	0.00444	0.71%
Zn 206.200†	11952.3	3.343	mg/L	0.0353	16.71	mg/L	0.177	1.06%

Sequence No.: 64
Sample ID: VR37 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 377
Date Collected: 11/19/2012 6:00:49 PM
Data Type: Original

Nebulizer Parameters: VR37 H SWC

Analyte	Back Pressure	Flow
All	223.0 kPa	0.75 L/min

Mean Data: VR37 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2598435.9	109.0	%	0.45				0.41%
ScR 361.383	346458.8	113.5	%	1.53				1.35%
Ag 328.068†	826.3	0.00515	mg/L	0.000144	0.02575	mg/L	0.000720	2.80%
Al 308.215†	93936.5	56.22	mg/L	0.776	281.1	mg/L	3.88	1.38%
As 188.979†	174.1	0.1600	mg/L	0.00154	0.8000	mg/L	0.00769	0.96%
B 249.677†	110.0	0.01513	mg/L	0.000353	0.07565	mg/L	0.001763	2.33%
Ba 233.527†	6758.0	1.605	mg/L	0.0149	8.027	mg/L	0.0746	0.93%
Be 313.042†	814.4	0.00128	mg/L	0.000035	0.00641	mg/L	0.000174	2.72%
Ca 317.933†	351190.0	26.40	mg/L	0.384	132.0	mg/L	1.92	1.45%
Cd 228.802†	2289.2	0.07737	mg/L	0.000354	0.3868	mg/L	0.00177	0.46%
Co 228.616†	822.9	0.01987	mg/L	0.000061	0.09935	mg/L	0.000307	0.31%
Cr 267.716†	291.5	0.04916	mg/L	0.001012	0.2458	mg/L	0.00506	2.06%
Cu 324.752†	45545.4	0.1872	mg/L	0.00067	0.9361	mg/L	0.00337	0.36%
Fe 273.955†	56229.8	42.83	mg/L	0.644	214.2	mg/L	3.22	1.50%
K 766.490†	10095.9	5.292	mg/L	0.0969	26.46	mg/L	0.485	1.83%
Mg 279.077†	13313.0	9.762	mg/L	0.1504	48.81	mg/L	0.752	1.54%
Mn 257.610†	123279.8	3.449	mg/L	0.0495	17.25	mg/L	0.247	1.43%
Mo 202.031†	83.5	0.00405	mg/L	0.000396	0.02027	mg/L	0.001980	9.77%
Na 589.592†	12046.2	1.032	mg/L	0.0121	5.160	mg/L	0.0603	1.17%
Na 330.237†	48.8	0.8166	mg/L	0.06221	4.083	mg/L	0.3111	7.62%
Ni 231.604†	162.5	0.04350	mg/L	0.001459	0.2175	mg/L	0.00729	3.35%
Pb 220.353†	32360.8	4.347	mg/L	0.0029	21.73	mg/L	0.015	0.07%
Sb 206.836†	103.8	0.03357	mg/L	0.000973	0.1679	mg/L	0.00487	2.90%
Se 196.026†	13.8	0.01017	mg/L	0.003987	0.05087	mg/L	0.019933	39.19%
Si 288.158†	2148.9	1.033	mg/L	0.0058	5.163	mg/L	0.0291	0.56%
Sn 189.927†	35.8	0.01333	mg/L	0.000382	0.06667	mg/L	0.001910	2.86%
Sr 421.552†	297494.6	0.3478	mg/L	0.00497	1.739	mg/L	0.0249	1.43%
Ti 334.903†	42448.4	2.043	mg/L	0.0285	10.21	mg/L	0.142	1.39%
Tl 190.801†	1.6	0.00491	mg/L	0.002229	0.02454	mg/L	0.011147	45.42%
V 292.402†	7569.6	0.06105	mg/L	0.000276	0.3053	mg/L	0.00138	0.45%
Zn 206.200†	15142.9	4.235	mg/L	0.0607	21.18	mg/L	0.304	1.43%

Sequence No.: 65
Sample ID: VR37 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 378
Date Collected: 11/19/2012 6:04:49 PM
Data Type: Original

Nebulizer Parameters: VR37 I SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR37 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2607315.0	109.3	%	0.64				0.59%
ScR 361.383	345966.9	113.3	%	1.01				0.89%
Ag 328.068†	-90.0	-0.00052	mg/L	0.000131	-0.00258	mg/L	0.000657	25.52%
Al 308.215†	62631.3	37.48	mg/L	0.276	187.4	mg/L	1.38	0.74%
As 188.979†	-30.8	0.04554	mg/L	0.001082	0.2277	mg/L	0.00541	2.38%
B 249.677†	17.9	0.00240	mg/L	0.000407	0.01199	mg/L	0.002033	16.96%
Ba 233.527†	1476.4	0.3408	mg/L	0.00310	1.704	mg/L	0.0155	0.91%
Be 313.042†	654.4	0.00100	mg/L	0.000028	0.00501	mg/L	0.000142	2.84%
Ca 317.933†	153931.6	11.57	mg/L	0.087	57.87	mg/L	0.434	0.75%
Cd 228.802†	374.3	0.01233	mg/L	0.000362	0.06163	mg/L	0.001810	2.94%
Co 228.616†	1162.4	0.02932	mg/L	0.001048	0.1466	mg/L	0.00524	3.57%
Cr 267.716†	495.6	0.08434	mg/L	0.000822	0.4217	mg/L	0.00411	0.97%
Cu 324.752†	17021.5	0.07193	mg/L	0.002167	0.3596	mg/L	0.01083	3.01%
Fe 273.955†	91635.5	69.80	mg/L	0.434	349.0	mg/L	2.17	0.62%
K 766.490†	10859.9	5.693	mg/L	0.0269	28.46	mg/L	0.135	0.47%
Mg 279.077†	23370.9	17.14	mg/L	0.099	85.70	mg/L	0.497	0.58%
Mn 257.610†	55209.0	1.545	mg/L	0.0105	7.724	mg/L	0.0526	0.68%
Mo 202.031†	43.8	0.00215	mg/L	0.000322	0.01074	mg/L	0.001612	15.00%
Na 589.592†	5955.0	0.5102	mg/L	0.00256	2.551	mg/L	0.0128	0.50%
Na 330.237†	6.7	0.5435	mg/L	0.04447	2.717	mg/L	0.2224	8.18%
Ni 231.604†	226.1	0.06049	mg/L	0.002234	0.3025	mg/L	0.01117	3.69%
Pb 220.353†	3607.2	0.4894	mg/L	0.01050	2.447	mg/L	0.0525	2.15%
Sb 206.836†	9.7	0.00343	mg/L	0.001671	0.01717	mg/L	0.008356	48.66%
Se 196.026†	11.2	0.00821	mg/L	0.001103	0.04105	mg/L	0.005515	13.43%
Si 288.158†	1522.3	0.7326	mg/L	0.00658	3.663	mg/L	0.0329	0.90%
Sn 189.927†	-12.0	-0.00144	mg/L	0.000498	-0.00720	mg/L	0.002490	34.60%
Sr 421.552†	82614.9	0.09658	mg/L	0.000577	0.4829	mg/L	0.00288	0.60%
Ti 334.903†	46820.6	2.254	mg/L	0.0136	11.27	mg/L	0.068	0.61%
Tl 190.801†	-20.2	-0.00213	mg/L	0.002436	-0.01064	mg/L	0.012182	114.51%
V 292.402†	18246.0	0.1486	mg/L	0.00389	0.7432	mg/L	0.01947	2.62%
Zn 206.200†	2273.5	0.6358	mg/L	0.00401	3.179	mg/L	0.0201	0.63%

Sequence No.: 66
Sample ID: VR37 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 379
Date Collected: 11/19/2012 6:08:49 PM
Data Type: Original

Nebulizer Parameters: VR37 J SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2628537.2	110.2	%	0.27				0.24%
ScR 361.383	348735.6	114.2	%	1.92				1.68%
Ag 328.068†	182.8	0.00117	mg/L	0.000188	0.00584	mg/L	0.000941	16.13%
Al 308.215†	118783.0	71.09	mg/L	1.328	355.5	mg/L	6.64	1.87%
As 188.979†	70.6	0.1108	mg/L	0.00164	0.5541	mg/L	0.00820	1.48%
B 249.677†	79.2	0.01083	mg/L	0.000918	0.05414	mg/L	0.004588	8.47%
Ba 233.527†	8506.2	2.014	mg/L	0.0319	10.07	mg/L	0.160	1.59%
Be 313.042†	1410.6	0.00223	mg/L	0.000052	0.01116	mg/L	0.000259	2.32%
Ca 317.933†	472180.2	35.50	mg/L	0.702	177.5	mg/L	3.51	1.98%
Cd 228.802†	2770.4	0.09392	mg/L	0.000931	0.4696	mg/L	0.00465	0.99%
Co 228.616†	1982.1	0.05279	mg/L	0.000629	0.2640	mg/L	0.00314	1.19%
Cr 267.716†	407.9	0.06956	mg/L	0.000795	0.3478	mg/L	0.00397	1.14%
Cu 324.752†	41009.6	0.1709	mg/L	0.00191	0.8546	mg/L	0.00957	1.12%
Fe 273.955†	126008.5	95.98	mg/L	1.868	479.9	mg/L	9.34	1.95%
K 766.490†	12021.4	6.301	mg/L	0.1368	31.51	mg/L	0.684	2.17%
Mg 279.077†	21663.4	15.87	mg/L	0.259	79.36	mg/L	1.295	1.63%
Mn 257.610†	402539.5	11.26	mg/L	0.219	56.30	mg/L	1.094	1.94%
Mo 202.031†	340.8	0.01733	mg/L	0.000033	0.08663	mg/L	0.000164	0.19%
Na 589.592†	9138.4	0.7830	mg/L	0.01418	3.915	mg/L	0.0709	1.81%
Na 330.237†	36.3	0.7195	mg/L	0.06449	3.598	mg/L	0.3224	8.96%
Ni 231.604†	832.1	0.2226	mg/L	0.00282	1.113	mg/L	0.0141	1.27%
Pb 220.353†	10863.3	1.468	mg/L	0.0163	7.341	mg/L	0.0815	1.11%
Sb 206.836†	31.2	0.01039	mg/L	0.000416	0.05197	mg/L	0.002079	4.00%
Se 196.026†	12.1	0.00889	mg/L	0.005209	0.04445	mg/L	0.026043	58.60%
Si 288.158†	1000.3	0.4823	mg/L	0.00472	2.412	mg/L	0.0236	0.98%
Sn 189.927†	-31.4	-0.00363	mg/L	0.001023	-0.01816	mg/L	0.005117	28.18%
Sr 421.552†	277729.2	0.3247	mg/L	0.00645	1.623	mg/L	0.0323	1.99%
Ti 334.903†	51625.5	2.484	mg/L	0.0473	12.42	mg/L	0.236	1.90%
Tl 190.801†	-19.4	0.00106	mg/L	0.004161	0.00528	mg/L	0.020807	394.28%
V 292.402†	13380.3	0.1086	mg/L	0.00158	0.5428	mg/L	0.00790	1.46%
Zn 206.200†	12418.0	3.473	mg/L	0.0641	17.36	mg/L	0.321	1.85%

Sequence No.: 67
Sample ID: VR37 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 380
Date Collected: 11/19/2012 6:12:49 PM
Data Type: Original

Nebulizer Parameters: VR37 K SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2653170.3	111.3	%	0.36				0.33%
ScR 361.383	338426.6	110.8	%	0.82				0.74%
Ag 328.068†	159.6	0.00101	mg/L	0.000142	0.00507	mg/L	0.000708	13.96%
Al 308.215†	113001.3	67.63	mg/L	0.461	338.2	mg/L	2.31	0.68%
As 188.979†	-42.8	0.03066	mg/L	0.001104	0.1533	mg/L	0.00552	3.60%
B 249.677†	58.3	0.00802	mg/L	0.000755	0.04011	mg/L	0.003776	9.41%
Ba 233.527†	2022.7	0.4772	mg/L	0.00293	2.386	mg/L	0.0147	0.61%
Be 313.042†	1033.6	0.00163	mg/L	0.000024	0.00816	mg/L	0.000122	1.49%
Ca 317.933†	1012817.3	76.15	mg/L	0.457	380.7	mg/L	2.28	0.60%
Cd 228.802†	658.7	0.02246	mg/L	0.000564	0.1123	mg/L	0.00282	2.51%
Co 228.616†	518.5	0.01088	mg/L	0.000555	0.05441	mg/L	0.002776	5.10%
Cr 267.716†	273.5	0.04577	mg/L	0.000753	0.2288	mg/L	0.00377	1.65%
Cu 324.752†	26953.7	0.1109	mg/L	0.00290	0.5546	mg/L	0.01449	2.61%
Fe 273.955†	43324.0	33.00	mg/L	0.247	165.0	mg/L	1.23	0.75%
K 766.490†	3171.1	1.662	mg/L	0.0131	8.311	mg/L	0.0656	0.79%
Mg 279.077†	12347.8	9.058	mg/L	0.0636	45.29	mg/L	0.318	0.70%
Mn 257.610†	5635.0	0.1574	mg/L	0.00092	0.7870	mg/L	0.00462	0.59%
Mo 202.031†	165.4	0.00777	mg/L	0.000228	0.03887	mg/L	0.001139	2.93%
Na 589.592†	9872.7	0.8459	mg/L	0.00780	4.229	mg/L	0.0390	0.92%
Na 330.237†	16.2	0.8514	mg/L	0.03136	4.257	mg/L	0.1568	3.68%
Ni 231.604†	195.4	0.05226	mg/L	0.000540	0.2613	mg/L	0.00270	1.03%
Pb 220.353†	5297.6	0.7244	mg/L	0.01378	3.622	mg/L	0.0689	1.90%
Sb 206.836†	22.2	0.00755	mg/L	0.001798	0.03775	mg/L	0.008988	23.81%
Se 196.026†	21.5	0.01587	mg/L	0.004635	0.07935	mg/L	0.023177	29.21%
Si 288.158†	4180.1	2.007	mg/L	0.0061	10.04	mg/L	0.031	0.30%
Sn 189.927†	-43.2	-0.00186	mg/L	0.000415	-0.00928	mg/L	0.002076	22.38%
Sr 421.552†	424080.1	0.4958	mg/L	0.00262	2.479	mg/L	0.0131	0.53%
Ti 334.903†	43898.4	2.110	mg/L	0.0138	10.55	mg/L	0.069	0.65%
Tl 190.801†	1.2	0.00369	mg/L	0.002513	0.01845	mg/L	0.012567	68.10%
V 292.402†	9978.8	0.08088	mg/L	0.002113	0.4044	mg/L	0.01056	2.61%
Zn 206.200†	2263.5	0.6330	mg/L	0.00189	3.165	mg/L	0.0095	0.30%

Sequence No.: 68
Sample ID: VR37 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 381
Date Collected: 11/19/2012 6:17:04 PM
Data Type: Original

Nebulizer Parameters: VR37 L SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR37 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2659515.9	111.5	%	0.72				0.65%
ScR 361.383	347823.9	113.9	%	1.47				1.29%
Ag 328.068†	-49.6	-0.00027	mg/L	0.000070	-0.00135	mg/L	0.000350	25.98%
Al 308.215†	115591.8	69.18	mg/L	0.941	345.9	mg/L	4.71	1.36%
As 188.979†	-53.8	0.04776	mg/L	0.002700	0.2388	mg/L	0.01350	5.65%
B 249.677†	93.6	0.01282	mg/L	0.000799	0.06412	mg/L	0.003996	6.23%
Ba 233.527†	3771.6	0.8865	mg/L	0.00268	4.433	mg/L	0.0134	0.30%
Be 313.042†	1305.1	0.00205	mg/L	0.000013	0.01026	mg/L	0.000063	0.62%
Ca 317.933†	549091.2	41.28	mg/L	0.475	206.4	mg/L	2.38	1.15%
Cd 228.802†	532.6	0.01777	mg/L	0.000514	0.08884	mg/L	0.002570	2.89%
Co 228.616†	1520.0	0.03858	mg/L	0.000954	0.1929	mg/L	0.00477	2.47%
Cr 267.716†	728.6	0.1230	mg/L	0.00031	0.6151	mg/L	0.00155	0.25%
Cu 324.752†	20202.3	0.08524	mg/L	0.001263	0.4262	mg/L	0.00632	1.48%
Fe 273.955†	106989.1	81.50	mg/L	0.929	407.5	mg/L	4.65	1.14%
K 766.490†	13755.8	7.211	mg/L	0.0856	36.05	mg/L	0.428	1.19%
Mg 279.077†	32065.3	23.52	mg/L	0.279	117.6	mg/L	1.39	1.19%
Mn 257.610†	114837.9	3.213	mg/L	0.0403	16.06	mg/L	0.201	1.25%
Mo 202.031†	58.4	0.00258	mg/L	0.000137	0.01292	mg/L	0.000686	5.31%
Na 589.592†	11285.1	0.9669	mg/L	0.01163	4.834	mg/L	0.0582	1.20%
Na 330.237†	18.5	0.9795	mg/L	0.06282	4.898	mg/L	0.3141	6.41%
Ni 231.604†	380.6	0.1018	mg/L	0.00124	0.5090	mg/L	0.00620	1.22%
Pb 220.353†	5249.1	0.7165	mg/L	0.01288	3.582	mg/L	0.0644	1.80%
Sb 206.836†	10.5	0.00325	mg/L	0.002140	0.01623	mg/L	0.010699	65.93%
Se 196.026†	7.1	0.00513	mg/L	0.000841	0.02565	mg/L	0.004203	16.38%
Si 288.158†	2004.4	0.9648	mg/L	0.00489	4.824	mg/L	0.0244	0.51%
Sn 189.927†	-36.4	-0.00423	mg/L	0.001227	-0.02117	mg/L	0.006137	28.99%
Sr 421.552†	259846.1	0.3038	mg/L	0.00391	1.519	mg/L	0.0196	1.29%
Ti 334.903†	59600.8	2.868	mg/L	0.0374	14.34	mg/L	0.187	1.30%
Tl 190.801†	-12.5	0.00251	mg/L	0.000533	0.01256	mg/L	0.002663	21.19%
V 292.402†	15911.1	0.1289	mg/L	0.00208	0.6445	mg/L	0.01041	1.62%
Zn 206.200†	3624.6	1.014	mg/L	0.0076	5.068	mg/L	0.0380	0.75%

Sequence No.: 69
Sample ID: VR37 M SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 382
Date Collected: 11/19/2012 6:21:04 PM
Data Type: Original

Nebulizer Parameters: VR37 M SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 M SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2639723.8	110.7	%	0.31				0.28%
ScR 361.383	349258.6	114.4	%	0.85				0.74%
Ag 328.068†	-69.0	-0.00039	mg/L	0.000116	-0.00196	mg/L	0.000582	29.73%
Al 308.215†	157447.6	94.23	mg/L	0.643	471.2	mg/L	3.21	0.68%
As 188.979†	-34.0	0.06605	mg/L	0.003117	0.3303	mg/L	0.01558	4.72%
B 249.677†	81.7	0.01117	mg/L	0.000388	0.05587	mg/L	0.001940	3.47%
Ba 233.527†	7158.1	1.693	mg/L	0.0152	8.464	mg/L	0.0759	0.90%
Be 313.042†	1734.9	0.00275	mg/L	0.000039	0.01374	mg/L	0.000194	1.41%
Ca 317.933†	403677.9	30.35	mg/L	0.205	151.7	mg/L	1.03	0.68%
Cd 228.802†	499.2	0.01644	mg/L	0.000513	0.08220	mg/L	0.002564	3.12%
Co 228.616†	1702.7	0.04343	mg/L	0.001104	0.2172	mg/L	0.00552	2.54%
Cr 267.716†	518.7	0.08797	mg/L	0.000911	0.4399	mg/L	0.00456	1.04%
Cu 324.752†	24148.8	0.1018	mg/L	0.00264	0.5088	mg/L	0.01322	2.60%
Fe 273.955†	120056.6	91.45	mg/L	0.460	457.2	mg/L	2.30	0.50%
K 766.490†	12531.0	6.569	mg/L	0.0669	32.84	mg/L	0.334	1.02%
Mg 279.077†	27979.7	20.52	mg/L	0.171	102.6	mg/L	0.86	0.84%
Mn 257.610†	311228.4	8.706	mg/L	0.0509	43.53	mg/L	0.254	0.58%
Mo 202.031†	68.7	0.00324	mg/L	0.000111	0.01619	mg/L	0.000553	3.42%
Na 589.592†	7331.0	0.6281	mg/L	0.00600	3.141	mg/L	0.0300	0.95%
Na 330.237†	7.0	0.5890	mg/L	0.15121	2.945	mg/L	0.7560	25.67%
Ni 231.604†	347.4	0.09292	mg/L	0.001190	0.4646	mg/L	0.00595	1.28%
Pb 220.353†	4232.9	0.5858	mg/L	0.01377	2.929	mg/L	0.0689	2.35%
Sb 206.836†	6.7	0.00264	mg/L	0.001515	0.01321	mg/L	0.007575	57.35%
Se 196.026†	14.9	0.01095	mg/L	0.003435	0.05476	mg/L	0.017177	31.37%
Si 288.158†	1060.8	0.5116	mg/L	0.00174	2.558	mg/L	0.0087	0.34%
Sn 189.927†	-37.8	-0.00594	mg/L	0.000902	-0.02972	mg/L	0.004511	15.18%
Sr 421.552†	237149.4	0.2772	mg/L	0.00229	1.386	mg/L	0.0114	0.82%
Ti 334.903†	63886.8	3.075	mg/L	0.0208	15.38	mg/L	0.104	0.68%
Tl 190.801†	-17.5	0.00138	mg/L	0.002048	0.00691	mg/L	0.010242	148.27%
V 292.402†	15433.1	0.1251	mg/L	0.00338	0.6257	mg/L	0.01690	2.70%
Zn 206.200†	3910.8	1.094	mg/L	0.0105	5.469	mg/L	0.0525	0.96%

Sequence No.: 70
Sample ID: VR37 N SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 383
Date Collected: 11/19/2012 6:25:04 PM
Data Type: Original

Nebulizer Parameters: VR37 N SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VR37 N SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2659227.5	111.5	%	0.64				0.57%
ScR 361.383	349260.8	114.4	%	2.12				1.86%
Ag 328.068†	52.6	0.00035	mg/L	0.000160	0.00177	mg/L	0.000801	45.17%
Al 308.215†	125522.9	75.13	mg/L	1.071	375.6	mg/L	5.35	1.43%
As 188.979†	167.2	0.1601	mg/L	0.00208	0.8006	mg/L	0.01040	1.30%
B 249.677†	71.1	0.00970	mg/L	0.000550	0.04851	mg/L	0.002750	5.67%
Ba 233.527†	8199.6	1.938	mg/L	0.0254	9.690	mg/L	0.1270	1.31%
Be 313.042†	1490.7	0.00237	mg/L	0.000047	0.01184	mg/L	0.000233	1.97%
Ca 317.933†	486552.3	36.58	mg/L	0.477	182.9	mg/L	2.38	1.30%
Cd 228.802†	1086.5	0.03564	mg/L	0.000613	0.1782	mg/L	0.00306	1.72%
Co 228.616†	1970.8	0.05279	mg/L	0.000756	0.2640	mg/L	0.00378	1.43%
Cr 267.716†	464.7	0.07939	mg/L	0.000626	0.3969	mg/L	0.00313	0.79%
Cu 324.752†	35883.9	0.1508	mg/L	0.00238	0.7538	mg/L	0.01191	1.58%
Fe 273.955†	146859.6	111.9	mg/L	1.37	559.3	mg/L	6.87	1.23%
K 766.490†	13526.6	7.090	mg/L	0.0886	35.45	mg/L	0.443	1.25%
Mg 279.077†	22962.2	16.82	mg/L	0.209	84.09	mg/L	1.044	1.24%
Mn 257.610†	526047.0	14.72	mg/L	0.196	73.58	mg/L	0.982	1.34%
Mo 202.031†	75.3	0.00351	mg/L	0.000226	0.01757	mg/L	0.001131	6.44%
Na 589.592†	9173.7	0.7860	mg/L	0.01173	3.930	mg/L	0.0586	1.49%
Na 330.237†	26.5	0.7647	mg/L	0.44074	3.824	mg/L	2.2037	57.63%
Ni 231.604†	572.3	0.1531	mg/L	0.00256	0.7655	mg/L	0.01280	1.67%
Pb 220.353†	6363.7	0.8658	mg/L	0.01209	4.329	mg/L	0.0605	1.40%
Sb 206.836†	22.9	0.00742	mg/L	0.002036	0.03708	mg/L	0.010180	27.46%
Se 196.026†	16.0	0.01176	mg/L	0.006339	0.05882	mg/L	0.031696	53.89%
Si 288.158†	1107.9	0.5339	mg/L	0.00940	2.669	mg/L	0.0470	1.76%
Sn 189.927†	-37.7	-0.00525	mg/L	0.000073	-0.02625	mg/L	0.000367	1.40%
Sr 421.552†	280466.0	0.3279	mg/L	0.00428	1.639	mg/L	0.0214	1.30%
Ti 334.903†	45959.2	2.211	mg/L	0.0302	11.06	mg/L	0.151	1.36%
Tl 190.801†	-19.7	0.00268	mg/L	0.002454	0.01338	mg/L	0.012270	91.69%
V 292.402†	11695.2	0.09470	mg/L	0.001429	0.4735	mg/L	0.00715	1.51%
Zn 206.200†	7441.4	2.081	mg/L	0.0266	10.41	mg/L	0.133	1.28%

Sequence No.: 71
Sample ID: VR37 O SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 384
Date Collected: 11/19/2012 6:29:04 PM
Data Type: Original

Nebulizer Parameters: VR37 O SWC

Analyte	Back Pressure	Flow
All	222.0 kPa	0.75 L/min

Mean Data: VR37 O SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2652950.5	111.2	%	0.48				0.43%
ScR 361.383	353867.1	115.9	%	2.10				1.81%
Ag 328.068†	168.1	0.00108	mg/L	0.000123	0.00538	mg/L	0.000617	11.47%
Al 308.215†	131360.5	78.62	mg/L	1.490	393.1	mg/L	7.45	1.89%
As 188.979†	102.7	0.1331	mg/L	0.00536	0.6657	mg/L	0.02682	4.03%
B 249.677†	70.3	0.00960	mg/L	0.000415	0.04800	mg/L	0.002074	4.32%
Ba 233.527†	7696.6	1.819	mg/L	0.0320	9.096	mg/L	0.1600	1.76%
Be 313.042†	1447.5	0.00229	mg/L	0.000071	0.01145	mg/L	0.000355	3.10%
Ca 317.933†	405937.0	30.52	mg/L	0.619	152.6	mg/L	3.09	2.03%
Cd 228.802†	2575.6	0.08706	mg/L	0.001620	0.4353	mg/L	0.00810	1.86%
Co 228.616†	1980.4	0.05244	mg/L	0.001074	0.2622	mg/L	0.00537	2.05%
Cr 267.716†	408.6	0.07017	mg/L	0.001784	0.3508	mg/L	0.00892	2.54%
Cu 324.752†	38801.7	0.1622	mg/L	0.00235	0.8112	mg/L	0.01175	1.45%
Fe 273.955†	136568.7	104.0	mg/L	2.16	520.1	mg/L	10.80	2.08%
K 766.490†	11236.6	5.890	mg/L	0.1092	29.45	mg/L	0.546	1.85%
Mg 279.077†	21931.0	16.06	mg/L	0.302	80.32	mg/L	1.509	1.88%
Mn 257.610†	344932.5	9.649	mg/L	0.1895	48.25	mg/L	0.948	1.96%
Mo 202.031†	286.4	0.01455	mg/L	0.000430	0.07277	mg/L	0.002150	2.96%
Na 589.592†	9008.8	0.7719	mg/L	0.01602	3.859	mg/L	0.0801	2.08%
Na 330.237†	38.0	0.8074	mg/L	0.06980	4.037	mg/L	0.3490	8.64%
Ni 231.604†	882.3	0.2360	mg/L	0.00418	1.180	mg/L	0.0209	1.77%
Pb 220.353†	9305.3	1.261	mg/L	0.0232	6.305	mg/L	0.1158	1.84%
Sb 206.836†	20.7	0.00709	mg/L	0.001640	0.03546	mg/L	0.008202	23.13%
Se 196.026†	13.2	0.00969	mg/L	0.004308	0.04843	mg/L	0.021540	44.47%
Si 288.158†	1383.1	0.6660	mg/L	0.01172	3.330	mg/L	0.0586	1.76%
Sn 189.927†	-28.6	-0.00350	mg/L	0.000373	-0.01750	mg/L	0.001865	10.66%
Sr 421.552†	255534.3	0.2987	mg/L	0.00572	1.494	mg/L	0.0286	1.91%
Ti 334.903†	53850.6	2.592	mg/L	0.0487	12.96	mg/L	0.243	1.88%
Tl 190.801†	-26.4	-0.00116	mg/L	0.001514	-0.00579	mg/L	0.007571	130.81%
V 292.402†	13593.3	0.1097	mg/L	0.00167	0.5487	mg/L	0.00835	1.52%
Zn 206.200†	12382.8	3.463	mg/L	0.0638	17.32	mg/L	0.319	1.84%

Sequence No.: 72
Sample ID: CV 13
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 6:33:04 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	2599695.0	109.0	%	0.44				0.41%
ScR 361.383	335328.4	109.8	%	0.66				0.60%
Ag 328.068†	158643.1	0.9854	mg/L	0.00090	0.9854	mg/L	0.00090	0.09%
Al 308.215†	3352.6	1.973	mg/L	0.0224	1.973	mg/L	0.0224	1.14%
As 188.979†	3327.4	1.993	mg/L	0.0134	1.993	mg/L	0.0134	0.67%
B 249.677†	7053.8	0.9726	mg/L	0.00717	0.9726	mg/L	0.00717	0.74%
Ba 233.527†	4307.7	1.027	mg/L	0.0108	1.027	mg/L	0.0108	1.05%
Be 313.042†	584128.1	0.9458	mg/L	0.00645	0.9458	mg/L	0.00645	0.68%
Ca 317.933†	25311.7	1.903	mg/L	0.0123	1.903	mg/L	0.0123	0.65%
Cd 228.802†	28866.4	0.9766	mg/L	0.00048	0.9766	mg/L	0.00048	0.05%
Co 228.616†	33380.0	0.9923	mg/L	0.00161	0.9923	mg/L	0.00161	0.16%
Cr 267.716†	5951.6	1.001	mg/L	0.0086	1.001	mg/L	0.0086	0.86%
Cu 324.752†	239477.3	0.9767	mg/L	0.00063	0.9767	mg/L	0.00063	0.06%
Fe 273.955†	2584.4	1.962	mg/L	0.0113	1.962	mg/L	0.0113	0.58%
K 766.490†	36771.4	19.27	mg/L	0.057	19.27	mg/L	0.057	0.30%
Mg 279.077†	2672.5	1.971	mg/L	0.0215	1.971	mg/L	0.0215	1.09%
Mn 257.610†	33450.0	0.9361	mg/L	0.00585	0.9361	mg/L	0.00585	0.62%
Mo 202.031†	18820.3	0.9782	mg/L	0.00355	0.9782	mg/L	0.00355	0.36%
Na 589.592†	580369.5	49.72	mg/L	0.363	49.72	mg/L	0.363	0.73%
Na 330.237†	1410.4	50.35	mg/L	0.337	50.35	mg/L	0.337	0.67%
Ni 231.604†	3763.9	1.007	mg/L	0.0096	1.007	mg/L	0.0096	0.95%
Pb 220.353†	14742.2	1.976	mg/L	0.0056	1.976	mg/L	0.0056	0.28%
Sb 206.836†	6340.6	2.018	mg/L	0.0090	2.018	mg/L	0.0090	0.44%
Se 196.026†	2630.3	1.946	mg/L	0.0107	1.946	mg/L	0.0107	0.55%
Si 288.158†	4095.0	1.965	mg/L	0.0168	1.965	mg/L	0.0168	0.85%
Sn 189.927†	3541.1	0.9522	mg/L	0.00505	0.9522	mg/L	0.00505	0.53%
Sr 421.552†	829982.3	0.9703	mg/L	0.00686	0.9703	mg/L	0.00686	0.71%
Ti 334.903†	19763.6	0.9506	mg/L	0.00831	0.9506	mg/L	0.00831	0.87%
Tl 190.801†	4548.2	1.981	mg/L	0.0086	1.981	mg/L	0.0086	0.43%
V 292.402†	117867.0	0.9848	mg/L	0.00094	0.9848	mg/L	0.00094	0.10%
Zn 206.200†	3684.4	1.030	mg/L	0.0075	1.030	mg/L	0.0075	0.73%

Sequence No.: 73
Sample ID: CB 13
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 6:37:57 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	222.0 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	2588373.5	108.5	%	0.77				0.71%
ScR 361.383	339357.8	111.1	%	1.18				1.06%
Ag 328.068†	17.8	0.00011	mg/L	0.000035	0.00011	mg/L	0.000035	32.07%
Al 308.215†	24.0	0.01438	mg/L	0.002079	0.01438	mg/L	0.002079	14.46%
As 188.979†	0.7	0.00043	mg/L	0.002642	0.00043	mg/L	0.002642	618.71%
B 249.677†	7.9	0.00109	mg/L	0.000421	0.00109	mg/L	0.000421	38.49%
Ba 233.527†	1.7	0.00040	mg/L	0.000167	0.00040	mg/L	0.000167	41.21%
Be 313.042†	24.1	0.00004	mg/L	0.000016	0.00004	mg/L	0.000016	40.53%
Ca 317.933†	79.0	0.00594	mg/L	0.000469	0.00594	mg/L	0.000469	7.90%
Cd 228.802†	-6.0	-0.00021	mg/L	0.000070	-0.00021	mg/L	0.000070	33.66%
Co 228.616†	4.3	0.00013	mg/L	0.000154	0.00013	mg/L	0.000154	119.93%
Cr 267.716†	10.2	0.00171	mg/L	0.001528	0.00171	mg/L	0.001528	89.21%
Cu 324.752†	43.4	0.00018	mg/L	0.000127	0.00018	mg/L	0.000127	71.25%
Fe 273.955†	23.1	0.01758	mg/L	0.002613	0.01758	mg/L	0.002613	14.86%
K 766.490†	-41.2	-0.02160	mg/L	0.016753	-0.02160	mg/L	0.016753	77.56%
Mg 279.077†	-6.1	-0.00450	mg/L	0.003877	-0.00450	mg/L	0.003877	86.12%
Mn 257.610†	52.5	0.00147	mg/L	0.000110	0.00147	mg/L	0.000110	7.47%
Mo 202.031†	9.2	0.00048	mg/L	0.000177	0.00048	mg/L	0.000177	37.09%
Na 589.592†	162.2	0.01389	mg/L	0.001435	0.01389	mg/L	0.001435	10.33%
Na 330.237†	13.9	0.4965	mg/L	0.01316	0.4965	mg/L	0.01316	2.65%
Ni 231.604†	1.4	0.00037	mg/L	0.000765	0.00037	mg/L	0.000765	204.29%
Pb 220.353†	-6.1	-0.00081	mg/L	0.000297	-0.00081	mg/L	0.000297	36.59%
Sb 206.836†	-3.2	-0.00104	mg/L	0.002169	-0.00104	mg/L	0.002169	208.18%
Se 196.026†	4.2	0.00308	mg/L	0.002553	0.00308	mg/L	0.002553	82.96%
Si 288.158†	5.1	0.00246	mg/L	0.004107	0.00246	mg/L	0.004107	167.26%
Sn 189.927†	1.8	0.00048	mg/L	0.000749	0.00048	mg/L	0.000749	155.83%
Sr 421.552†	107.9	0.00013	mg/L	0.000036	0.00013	mg/L	0.000036	28.39%
Ti 334.903†	7.3	0.00035	mg/L	0.000519	0.00035	mg/L	0.000519	148.19%
Tl 190.801†	-0.3	-0.00013	mg/L	0.000774	-0.00013	mg/L	0.000774	587.97%
V 292.402†	7.7	0.00007	mg/L	0.000228	0.00007	mg/L	0.000228	320.13%
Zn 206.200†	-0.7	-0.00018	mg/L	0.000929	-0.00018	mg/L	0.000929	508.68%

Sequence No.: 74
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 385
Date Collected: 11/19/2012 6:42:12 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	222.0 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	2617328.9	109.8	%	0.50				0.46%
ScR 361.383	341189.9	111.7	%	0.46				0.42%
Ag 328.068†	465.3	0.00289	mg/L	0.000154	0.00289	mg/L	0.000154	5.32%
Al 308.215†	92.0	0.05495	mg/L	0.004918	0.05495	mg/L	0.004918	8.95%
As 188.979†	83.3	0.04939	mg/L	0.000828	0.04939	mg/L	0.000828	1.68%
B 249.677†	139.1	0.01920	mg/L	0.000783	0.01920	mg/L	0.000783	4.08%
Ba 233.527†	11.2	0.00266	mg/L	0.000658	0.00266	mg/L	0.000658	24.78%
Be 313.042†	555.0	0.00090	mg/L	0.000026	0.00090	mg/L	0.000026	2.93%
Ca 317.933†	663.4	0.04987	mg/L	0.000647	0.04987	mg/L	0.000647	1.30%
Cd 228.802†	65.8	0.00194	mg/L	0.000202	0.00194	mg/L	0.000202	10.45%
Co 228.616†	118.5	0.00352	mg/L	0.000022	0.00352	mg/L	0.000022	0.62%
Cr 267.716†	36.5	0.00614	mg/L	0.000858	0.00614	mg/L	0.000858	13.98%
Cu 324.752†	496.0	0.00202	mg/L	0.000044	0.00202	mg/L	0.000044	2.15%
Fe 273.955†	79.0	0.06014	mg/L	0.001577	0.06014	mg/L	0.001577	2.62%
K 766.490†	858.5	0.4500	mg/L	0.01605	0.4500	mg/L	0.01605	3.57%
Mg 279.077†	61.7	0.04534	mg/L	0.002108	0.04534	mg/L	0.002108	4.65%
Mn 257.610†	60.8	0.00171	mg/L	0.000042	0.00171	mg/L	0.000042	2.46%
Mo 202.031†	93.0	0.00483	mg/L	0.000271	0.00483	mg/L	0.000271	5.60%
Na 589.592†	5614.3	0.4810	mg/L	0.00269	0.4810	mg/L	0.00269	0.56%
Na 330.237†	19.9	0.7102	mg/L	0.18866	0.7102	mg/L	0.18866	26.56%
Ni 231.604†	45.7	0.01224	mg/L	0.000979	0.01224	mg/L	0.000979	8.00%
Pb 220.353†	140.8	0.01888	mg/L	0.000851	0.01888	mg/L	0.000851	4.51%
Sb 206.836†	147.8	0.04711	mg/L	0.001360	0.04711	mg/L	0.001360	2.89%
Se 196.026†	72.1	0.05336	mg/L	0.002424	0.05336	mg/L	0.002424	4.54%
Si 288.158†	121.7	0.05834	mg/L	0.000915	0.05834	mg/L	0.000915	1.57%
Sn 189.927†	35.4	0.00954	mg/L	0.000191	0.00954	mg/L	0.000191	2.00%
Sr 421.552†	843.1	0.00099	mg/L	0.000016	0.00099	mg/L	0.000016	1.65%
Ti 334.903†	89.5	0.00430	mg/L	0.000569	0.00430	mg/L	0.000569	13.23%
Tl 190.801†	107.4	0.04697	mg/L	0.000764	0.04697	mg/L	0.000764	1.63%
V 292.402†	353.2	0.00296	mg/L	0.000151	0.00296	mg/L	0.000151	5.10%
Zn 206.200†	34.8	0.00975	mg/L	0.000176	0.00975	mg/L	0.000176	1.81%

Sequence No.: 75
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 386
Date Collected: 11/19/2012 6:46:28 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	221.0 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	2561179.0	107.4	%	0.28				0.26%
ScR 361.383	331910.1	108.7	%	0.83				0.77%
Ag 328.068†	-146.5	-0.00091	mg/L	0.000107	-0.00091	mg/L	0.000107	11.80%
Al 308.215†	319951.2	191.5	mg/L	1.27	191.5	mg/L	1.27	0.66%
As 188.979†	38.2	0.01720	mg/L	0.001648	0.01720	mg/L	0.001648	9.59%
B 249.677†	-41.4	-0.00571	mg/L	0.000583	-0.00571	mg/L	0.000583	10.20%
Ba 233.527†	120.3	-0.00112	mg/L	0.001006	-0.00112	mg/L	0.001006	89.58%
Be 313.042†	43.0	0.00007	mg/L	0.000040	0.00007	mg/L	0.000040	59.32%
Ca 317.933†	1282171.9	96.40	mg/L	0.467	96.40	mg/L	0.467	0.48%
Cd 228.802†	55.9	0.00003	mg/L	0.000134	0.00003	mg/L	0.000134	391.64%
Co 228.616†	59.0	-0.00063	mg/L	0.000228	-0.00063	mg/L	0.000228	36.49%
Cr 267.716†	21.3	0.00125	mg/L	0.000214	0.00125	mg/L	0.000214	17.14%
Cu 324.752†	-1795.7	-0.00011	mg/L	0.000014	-0.00011	mg/L	0.000014	13.04%
Fe 273.955†	239229.2	182.2	mg/L	1.23	182.2	mg/L	1.23	0.68%
K 766.490†	-21.3	-0.01115	mg/L	0.022795	-0.01115	mg/L	0.022795	204.43%
Mg 279.077†	135552.4	99.53	mg/L	0.770	99.53	mg/L	0.770	0.77%
Mn 257.610†	49.0	0.00129	mg/L	0.000182	0.00129	mg/L	0.000182	14.13%
Mo 202.031†	43.5	0.00122	mg/L	0.000196	0.00122	mg/L	0.000196	16.11%
Na 589.592†	367.6	0.03149	mg/L	0.001067	0.03149	mg/L	0.001067	3.39%
Na 330.237†	-2.9	-0.1048	mg/L	0.32174	-0.1048	mg/L	0.32174	307.06%
Ni 231.604†	7.6	0.00205	mg/L	0.000807	0.00205	mg/L	0.000807	39.43%
Pb 220.353†	-282.2	0.00054	mg/L	0.000399	0.00054	mg/L	0.000399	74.01%
Sb 206.836†	7.1	0.00207	mg/L	0.002444	0.00207	mg/L	0.002444	117.92%
Se 196.026†	21.9	0.01623	mg/L	0.003048	0.01623	mg/L	0.003048	18.78%
Si 288.158†	-24.9	0.00009	mg/L	0.000945	0.00009	mg/L	0.000945	>999.9%
Sn 189.927†	-70.9	-0.00712	mg/L	0.001412	-0.00712	mg/L	0.001412	19.84%
Sr 421.552†	3330.0	0.00389	mg/L Cont.	0.000042	0.00389	mg/L	0.000042	1.07%
Ti 334.903†	126.1	0.00147	mg/L	0.000545	0.00147	mg/L	0.000545	37.05%
Tl 190.801†	-52.8	-0.00364	mg/L	0.001262	-0.00364	mg/L	0.001262	34.70%
V 292.402†	1167.3	0.00335	mg/L	0.000095	0.00335	mg/L	0.000095	2.84%
Zn 206.200†	13.6	0.00379	mg/L	0.001017	0.00379	mg/L	0.001017	26.85%

Sequence No.: 76
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 387
Date Collected: 11/19/2012 6:50:44 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	222.0 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	2577485.5	108.1	%	0.24				0.23%
ScR 361.383	335948.8	110.0	%	0.51				0.46%
Ag 328.068†	164886.1	1.024	mg/L	0.0016	1.024	mg/L	0.0016	0.16%
Al 308.215†	312491.4	187.0	mg/L	0.75	187.0	mg/L	0.75	0.40%
As 188.979†	1695.4	0.9976	mg/L	0.00204	0.9976	mg/L	0.00204	0.20%
B 249.677†	-8.7	-0.00317	mg/L	0.000894	-0.00317	mg/L	0.000894	28.17%
Ba 233.527†	4380.7	1.016	mg/L	0.0095	1.016	mg/L	0.0095	0.94%
Be 313.042†	576905.2	0.9342	mg/L	0.00269	0.9342	mg/L	0.00269	0.29%
Ca 317.933†	1271581.9	95.60	mg/L	0.447	95.60	mg/L	0.447	0.47%
Cd 228.802†	28613.2	0.9726	mg/L	0.00166	0.9726	mg/L	0.00166	0.17%
Co 228.616†	32161.4	0.9554	mg/L	0.00198	0.9554	mg/L	0.00198	0.21%
Cr 267.716†	5878.2	0.9867	mg/L	0.00697	0.9867	mg/L	0.00697	0.71%
Cu 324.752†	246807.1	1.014	mg/L	0.0016	1.014	mg/L	0.0016	0.16%
Fe 273.955†	235226.6	179.2	mg/L	0.73	179.2	mg/L	0.73	0.41%
K 766.490†	-157.7	-0.08264	mg/L	0.007673	-0.08264	mg/L	0.007673	9.28%
Mg 279.077†	128895.8	94.64	mg/L	0.390	94.64	mg/L	0.390	0.41%
Mn 257.610†	32072.9	0.8973	mg/L	0.00473	0.8973	mg/L	0.00473	0.53%
Mo 202.031†	44.6	0.00123	mg/L	0.000316	0.00123	mg/L	0.000316	25.70%
Na 589.592†	424.6	0.03638	mg/L	0.001263	0.03638	mg/L	0.001263	3.47%
Na 330.237†	11.2	0.08787	mg/L	0.142458	0.08787	mg/L	0.142458	162.12%
Ni 231.604†	3633.9	0.9722	mg/L	0.00929	0.9722	mg/L	0.00929	0.96%
Pb 220.353†	6797.8	0.9486	mg/L	0.00305	0.9486	mg/L	0.00305	0.32%
Sb 206.836†	3069.5	0.9672	mg/L	0.00381	0.9672	mg/L	0.00381	0.39%
Se 196.026†	1326.1	0.9809	mg/L	0.00412	0.9809	mg/L	0.00412	0.42%
Si 288.158†	-28.7	0.00123	mg/L	0.003561	0.00123	mg/L	0.003561	289.99%
Sn 189.927†	-71.6	-0.00693	mg/L	0.000718	-0.00693	mg/L	0.000718	10.35%
Sr 421.552†	3209.4	0.00375	mg/L Cont.	0.000035	0.00375	mg/L	0.000035	0.94%
Ti 334.903†	110.9	0.00058	mg/L	0.000449	0.00058	mg/L	0.000449	77.31%
Tl 190.801†	2097.1	0.9275	mg/L	0.00280	0.9275	mg/L	0.00280	0.30%
V 292.402†	117095.9	0.9721	mg/L	0.00079	0.9721	mg/L	0.00079	0.08%
Zn 206.200†	3410.6	0.9538	mg/L	0.00741	0.9538	mg/L	0.00741	0.78%

Sequence No.: 77
Sample ID: CV 14
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/19/2012 6:54:47 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	2611103.6	109.5	%	0.43				0.39%
ScR 361.383	337263.4	110.4	%	1.41				1.28%
Ag 328.068†	166044.4	1.031	mg/L	0.0058	1.031	mg/L	0.0058	0.57%
Al 308.215†	3306.1	1.945	mg/L	0.0259	1.945	mg/L	0.0259	1.33%
As 188.979†	3372.9	2.020	mg/L	0.0120	2.020	mg/L	0.0120	0.60%
B 249.677†	7011.2	0.9666	mg/L	0.01222	0.9666	mg/L	0.01222	1.26%
Ba 233.527†	4336.7	1.034	mg/L	0.0155	1.034	mg/L	0.0155	1.50%
Be 313.042†	580057.3	0.9392	mg/L	0.01635	0.9392	mg/L	0.01635	1.74%
Ca 317.933†	25334.7	1.905	mg/L	0.0299	1.905	mg/L	0.0299	1.57%
Cd 228.802†	29319.8	0.9919	mg/L	0.00461	0.9919	mg/L	0.00461	0.47%
Co 228.616†	33899.5	1.008	mg/L	0.0056	1.008	mg/L	0.0056	0.56%
Cr 267.716†	5947.1	1.000	mg/L	0.0105	1.000	mg/L	0.0105	1.05%
Cu 324.752†	237318.6	0.9679	mg/L	0.00233	0.9679	mg/L	0.00233	0.24%
Fe 273.955†	2545.1	1.932	mg/L	0.0240	1.932	mg/L	0.0240	1.24%
K 766.490†	36481.8	19.12	mg/L	0.238	19.12	mg/L	0.238	1.25%
Mg 279.077†	2664.1	1.965	mg/L	0.0227	1.965	mg/L	0.0227	1.16%
Mn 257.610†	33079.9	0.9257	mg/L	0.01295	0.9257	mg/L	0.01295	1.40%
Mo 202.031†	18530.2	0.9632	mg/L	0.00624	0.9632	mg/L	0.00624	0.65%
Na 589.592†	576336.5	49.38	mg/L	0.744	49.38	mg/L	0.744	1.51%
Na 330.237†	1396.4	49.84	mg/L	0.542	49.84	mg/L	0.542	1.09%
Ni 231.604†	3783.0	1.012	mg/L	0.0132	1.012	mg/L	0.0132	1.31%
Pb 220.353†	14540.2	1.949	mg/L	0.0117	1.949	mg/L	0.0117	0.60%
Sb 206.836†	6426.7	2.046	mg/L	0.0122	2.046	mg/L	0.0122	0.60%
Se 196.026†	2661.5	1.969	mg/L	0.0089	1.969	mg/L	0.0089	0.45%
Si 288.158†	4073.7	1.954	mg/L	0.0236	1.954	mg/L	0.0236	1.21%
Sn 189.927†	3582.2	0.9632	mg/L	0.00517	0.9632	mg/L	0.00517	0.54%
Sr 421.552†	821152.6	0.9599	mg/L	0.01462	0.9599	mg/L	0.01462	1.52%
Ti 334.903†	19576.0	0.9416	mg/L	0.01401	0.9416	mg/L	0.01401	1.49%
Tl 190.801†	4598.7	2.003	mg/L	0.0142	2.003	mg/L	0.0142	0.71%
V 292.402†	122094.2	1.020	mg/L	0.0061	1.020	mg/L	0.0061	0.59%
Zn 206.200†	3701.7	1.035	mg/L	0.0121	1.035	mg/L	0.0121	1.17%

Sequence No.: 78
Sample ID: CB 14
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/19/2012 6:59:55 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	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2592345.5	108.7	%	0.88				0.81%
ScR 361.383	338704.5	110.9	%	0.11				0.10%
Ag 328.068†	26.7	0.00017	mg/L	0.000147	0.00017	mg/L	0.000147	88.64%
Al 308.215†	-6.5	-0.00387	mg/L	0.000276	-0.00387	mg/L	0.000276	7.13%
As 188.979†	0.8	0.00040	mg/L	0.000667	0.00040	mg/L	0.000667	166.10%
B 249.677†	6.4	0.00088	mg/L	0.000625	0.00088	mg/L	0.000625	70.95%
Ba 233.527†	-0.5	-0.00013	mg/L	0.000754	-0.00013	mg/L	0.000754	601.51%
Be 313.042†	26.1	0.00004	mg/L	0.000034	0.00004	mg/L	0.000034	80.48%
Ca 317.933†	12.2	0.00092	mg/L	0.000673	0.00092	mg/L	0.000673	73.24%
Cd 228.802†	-1.0	-0.00004	mg/L	0.000055	-0.00004	mg/L	0.000055	154.11%
Co 228.616†	1.4	0.00004	mg/L	0.000089	0.00004	mg/L	0.000089	203.50%
Cr 267.716†	6.5	0.00109	mg/L	0.000937	0.00109	mg/L	0.000937	86.03%
Cu 324.752†	68.7	0.00028	mg/L	0.000131	0.00028	mg/L	0.000131	46.75%
Fe 273.955†	6.7	0.00509	mg/L	0.001688	0.00509	mg/L	0.001688	33.15%
K 766.490†	-36.6	-0.01919	mg/L	0.001365	-0.01919	mg/L	0.001365	7.11%
Mg 279.077†	-7.0	-0.00515	mg/L	0.001999	-0.00515	mg/L	0.001999	38.84%
Mn 257.610†	0.2	0.00000	mg/L	0.000067	0.00000	mg/L	0.000067	>999.9%
Mo 202.031†	10.5	0.00055	mg/L	0.000263	0.00055	mg/L	0.000263	48.04%
Na 589.592†	141.5	0.01213	mg/L	0.001592	0.01213	mg/L	0.001592	13.13%
Na 330.237†	2.4	0.08468	mg/L	0.104350	0.08468	mg/L	0.104350	123.23%
Ni 231.604†	6.7	0.00180	mg/L	0.001803	0.00180	mg/L	0.001803	99.95%
Pb 220.353†	-3.5	-0.00047	mg/L	0.000538	-0.00047	mg/L	0.000538	115.25%
Sb 206.836†	1.4	0.00044	mg/L	0.000710	0.00044	mg/L	0.000710	159.67%
Se 196.026†	6.9	0.00508	mg/L	0.000891	0.00508	mg/L	0.000891	17.55%
Si 288.158†	2.1	0.00099	mg/L	0.004898	0.00099	mg/L	0.004898	494.39%
Sn 189.927†	1.6	0.00043	mg/L	0.000985	0.00043	mg/L	0.000985	231.20%
Sr 421.552†	25.8	0.00003	mg/L	0.000007	0.00003	mg/L	0.000007	23.79%
Ti 334.903†	-28.7	-0.00138	mg/L	0.000685	-0.00138	mg/L	0.000685	49.49%
Tl 190.801†	-5.2	-0.00227	mg/L	0.001049	-0.00227	mg/L	0.001049	46.28%
V 292.402†	-16.4	-0.00013	mg/L	0.000351	-0.00013	mg/L	0.000351	268.01%
Zn 206.200†	-1.5	-0.00043	mg/L	0.000335	-0.00043	mg/L	0.000335	77.57%

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 1 **of** 8

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			2992-6
		5			2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{53}Cr, ^{62}Ni high; ^{67}Zn 120%
		LR200			
		LR300			
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VR32 A-L	SWN	100	Ag
		A	↓	20	↓
		ADUP	↓	↓	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 2 **of** 8

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR32 ASPK	SWN	20	Ag
		B			
		C			
		D			
		E			
		F			
		G			
		CCV3			
		CCB3			
		VR33 MB1	SWN	20	Ag
		MB1SPK			
		VR32 H			
		I			
		J			
		K			
		L		100	V Cr Co
		L		20	Ag
		VR33 C		100	V Cr Co
		C		20	Ag
		CCV4			
		CCB4			
		VR33 A-L	SWN	100	Ag
		A		20	
		ADUP			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 3 of 8

All corrections made by analyst unless otherwise noted. 11.20.12 MJJ

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR33 ASPK	SWN	20 ↓	Ag
		B			
		D			
		E			
		F			
		G			
		H			
		CCV5			
		CCB5			
		VR34 A-L	SWN	500 ↓	Pb Bi
		A		100	
		ADUP		↓	↓
		ASPK		↓	↓ STL
		B		20	Ag
		C			
		VR33 I			
		J			
		K			
		L			
		CCV6			
		CCB6			
		VR34 MB1	SWN	20	Ag
		MB1SPK		1 ↓	↓
		A-L		100 ↓	↓ Be

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 4 **of** 8

All corrections made by analyst unless otherwise noted. 11.20.12 MJJ

Edit Label	Delete Data	ARI Sample ID		Prep Code	Dilution	Comments
		VR34	A	SWN	20	Ag Be
			ADUP		✓	
			ASPK		✓	
			D			
			E			
			F		100	Pb Zn
			F		20	Be, Ag
		CCV7				
		CCB7				
		VR73	MB1	REN	2	Ag
			MB1SPK			
		VR34	G	SWN	20	Ag, Be
			H			Ag
			I			
			J			
			K			
			L			
		VR73	A	REN		Mn
			C			
		CCV8				
		CCB8				As2 high
		VR36	MB1	SWN	20	
			MB1SPK			
			A-L		100	or Pb

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 5 **of** 8

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR36 A	SWN	20	rr Pb (CAF)
		ADUP			Sb high RPD
		ASPK			Sb, Zn low % R
		APOST			Sb Zn 0.01mL PMSspk#1 1/10 0.01mL PMSspk#2 1/10
		B			rr Pb, Zn 1/100
		C			
		D			
		CCV9			
		CCB9			As2, 78Se high
		VR37 MB1	SWN	20	
		MB1SPK			
		VR36 E			
		F			
		G			
		H			rr Pb Zn 1/100
		I			
		J			
		K			
		L			
		CCV10			
		CCB10			As2, 78Se high
		VR37 A-L	SWN	100	
		A		20	(CAF)
		ADUP			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.19.12 **Analyst:** MJJ **Page:** 6 **of** 8

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR37 ASPK	SWN	20	Sb low'ish
		APOST			Sb 0.06mL PMSspk#1 '/10 0.06mL PMSSpk#2 '/10
		B			
		C			
		D			rr Pb '/100
		E			rr Pb, Zn '/100
		F			↓
		CCV11			
		CCB11			As2, 78Se high
		VR37 G	SWN	20	rr Pb Zn '/100
		H			↓
		I			
		J			rr Pb Zn '/100
		K			
		L			
		M			
		N			rr Zn '/100
		O			rr Pb Zn '/100
		VR66 A			
		CCV12			U high
		CCB12			As2, 78Se high
		VR66 MB1	SWN	20	
		MB1SPK			
		IDUP			

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ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11.19.12

M2 Nexion	Analyst MST 11.20.12	Peer JT 11-21	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	✓	✓	L
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See log
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VR36, VR37
Matrix Duplicates	✓	✓	VR36
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 VR36, VR37

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, November 19, 2012 12:04:58
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1301
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	4146.4	4146.431	47.579	1.1	Standard
	Mg	24.0	43116.5	43116.525	277.372	0.6	Standard
	In	114.9	86325.8	86325.763	322.961	0.4	Standard
	Pb	208.0	34073.0	34072.983	125.163	0.4	Standard
	U	238.1	62712.8	62712.771	575.428	0.9	Standard
⌈	CeO	155.9	2052.3	0.024	0.001	5.0	Standard
| >	Ce	139.9	84445.8	84445.846	289.352	0.3	Standard
⌊	Ce++	70.0	1159.2	0.014	0.001	3.9	Standard
	Bkgd	220.0	0.1	0.100	0.149	149.1	Standard

Current Conditions File Data

Current Value	Description
1.09	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
1250.00	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

Optimization Summary

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

Start Time: 11/19/2012 12:04:56 PM
End Time: 11/19/2012 12:07:32 PM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4146.43
Obtained Intensity (Mg 23.985): 43116.52
Obtained Intensity (In 114.904): 86325.76
Obtained Intensity (Pb 207.977): 34072.98
Obtained Intensity (U 238.05): 62712.77
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.024 (=2052.32 / 84445.85)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1159.21 / 84445.85)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\DUALDET.swz

tart Time: 11/19/2012 11:27:55 AM
nd Time: 11/19/2012 11:30:48 AM

etector Voltages - [Passed]
    Pulse Stage Voltage - [Passed] Optimum value(s): 1250
    Analog Stage Voltage - [Passed] Optimum value(s): -1675
    Pulse Stage Voltage (Fine-tune) - [Passed] Optimum value(s): 1250

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/19/2012 11:57:57 AM
End Time: 11/19/2012 12:00:10 PM

Mass 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 (0.7/0.704)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.709)

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/19/2012 12:00:20 PM
End Time: 11/19/2012 12:04:31 PM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.992; Intercept = -12.11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:46:25
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				923208	0
	Be	9		ug/L				23	24
	C	13		ug/L				82469	2
	Cl	37		ug/L				4833777	2
>	Sc	45		ug/L				1144296	0
	V	51		ug/L				9450	1
	V-1	51		ug/L				48	5
	Cr	52		ug/L				27897	1
	Cr	53		ug/L				145	4
	Mn	55		ug/L				487	5
	Co	59		ug/L				76	23
>	Ge	72		ug/L				608948	1
	Ni	60		ug/L				28	17
	Ni	62		ug/L				64	12
	Cu	63		ug/L				101	7
	Cu	65		ug/L				39	18
	Zn	66		ug/L				991	6
	Zn	67		ug/L				141	4
	Zn	68		ug/L				706	3
	As	75		ug/L				318	3
	As-1	75		ug/L				12623	0
	Se	82		ug/L				-10	161
	Se	78		ug/L				12864	0
	Mo	98		ug/L				28	23
	Y	89		ug/L				406158	1
	Kr	83		ug/L				794	5
>	In	115		ug/L				1093664	0
	Ag	107		ug/L				42	23
	Cd	111		ug/L				115	7
	Cd	114		ug/L				65	11
	Sb	121		ug/L				182	13
	Sb	123		ug/L				151	14
	Ba	135		ug/L				15	20
	Ba	137		ug/L				26	9
>	Tb	159		ug/L				1253683	0
	Tl	205		ug/L				128	15
	Pb	208		ug/L				347	1
	Bi	209		ug/L				2594753	0
	Th	232		ug/L				1408	3
	U	238		ug/L				31	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:50:34
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	916656	0
[	Be	9	0.200	ug/L	0.001	0	23	690	1
	C	13		ug/L			82469	86121	3
	Cl	37		ug/L			4833777	4879558	1
[>	Sc	45		ug/L			1144296	1138804	1
|	V	51	0.200	ug/L	0.006	3	9450	14094	1
|	V-1	51	0.200	ug/L	0.008	3	48	4585	2
|	Cr	52	0.500	ug/L	0.033	6	27897	37414	1
|	Cr	53	0.500	ug/L	0.032	6	145	1187	4
|	Mn	55	0.500	ug/L	0.004	0	487	13129	1
[	Co	59	0.200	ug/L	0.005	2	76	3875	1
[>	Ge	72		ug/L			608948	597664	0
|	Ni	60	0.500	ug/L	0.006	1	28	2114	0
|	Ni	62	0.500	ug/L	0.044	8	64	319	6
|	Cu	63	0.500	ug/L	0.006	1	101	4905	0
|	Cu	65	0.500	ug/L	0.008	1	39	2155	2
|	Zn	66	4.000	ug/L	0.089	2	991	10456	1
|	Zn	67	4.000	ug/L	0.066	1	141	1575	2
|	Zn	68	4.000	ug/L	0.075	1	706	7362	0
|	As	75	0.200	ug/L	0.007	3	318	808	1
|	As-1	75	0.200	ug/L	0.019	9	12623	12962	0
|	Se	82	0.500	ug/L	0.014	2	-10	140	2
|	Se	78	0.500	ug/L	0.036	7	12864	13072	0
[	Mo	98	0.200	ug/L	0.012	6	28	1200	6
	Y	89		ug/L			406158	409551	1
	Kr	83		ug/L			794	763	2
[>	In	115		ug/L			1093664	1090207	1
|	Ag	107	0.200	ug/L	0.002	1	42	3242	1
|	Cd	111	0.100	ug/L	0.007	7	115	698	6
|	Cd	114	0.100	ug/L	0.004	3	65	1460	3
|	Sb	121	0.200	ug/L	0.005	2	182	3279	1
|	Sb	123	0.200	ug/L	0.007	3	151	2451	1
|	Ba	135	0.500	ug/L	0.020	3	15	2381	3
[	Ba	137	0.500	ug/L	0.011	2	26	4228	1
[>	Tb	159		ug/L			1253683	1242355	1
|	Tl	205	0.200	ug/L	0.002	0	128	7365	1
|	Pb	208	0.100	ug/L	0.003	2	347	5270	1
|	Bi	209		ug/L			2594753	2571936	0
|	Th	232	0.200	ug/L	0.011	5	1408	8376	4
[	U	238	0.200	ug/L	0.005	2	31	9772	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:54:44
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	933022	1
	Be	9	10.000	ug/L	0.156	1	23	33700	0
	C	13		ug/L			82469	90005	1
	Cl	37		ug/L			4833777	4848340	1
>	Sc	45		ug/L			1144296	1185233	0
	V	51	9.999	ug/L	0.146	1	9450	224847	1
	V-1	51	10.000	ug/L	0.150	1	48	215611	1
	Cr	52	9.998	ug/L	0.204	2	27897	216834	2
	Cr	53	10.000	ug/L	0.052	0	145	21548	0
	Mn	55	9.999	ug/L	0.119	1	487	255385	0
	Co	59	10.000	ug/L	0.167	1	76	189731	1
>	Ge	72		ug/L			608948	614297	2
	Ni	60	9.999	ug/L	0.343	3	28	41277	2
	Ni	62	10.002	ug/L	0.440	4	64	5796	1
	Cu	63	9.998	ug/L	0.340	3	101	92665	0
	Cu	65	9.999	ug/L	0.249	2	39	41708	0
	Zn	66	9.957	ug/L	0.183	1	991	24632	0
	Zn	67	10.065	ug/L	0.287	2	141	4011	1
	Zn	68	9.966	ug/L	0.198	1	706	17432	0
	As	75	9.999	ug/L	0.157	1	318	22230	1
	As-1	75	9.998	ug/L	0.282	2	12623	33705	0
	Se	82	9.996	ug/L	0.227	2	-10	2688	1
	Se	78	9.986	ug/L	0.614	6	12864	18883	0
	Mo	98	10.000	ug/L	0.238	2	28	59088	0
	Y	89		ug/L			406158	417433	0
	Kr	83		ug/L			794	783	2
>	In	115		ug/L			1093664	1113587	1
	Ag	107	10.000	ug/L	0.200	2	42	161065	0
	Cd	111	10.000	ug/L	0.133	1	115	56991	0
	Cd	114	10.000	ug/L	0.167	1	65	138401	0
	Sb	121	10.000	ug/L	0.202	2	182	161865	0
	Sb	123	10.000	ug/L	0.221	2	151	123040	0
	Ba	135	10.000	ug/L	0.092	0	15	48834	1
	Ba	137	10.000	ug/L	0.205	2	26	84620	0
>	Tb	159		ug/L			1253683	1282920	1
	Tl	205	10.000	ug/L	0.220	2	128	363752	0
	Pb	208	10.000	ug/L	0.102	1	347	477727	0
	Bi	209		ug/L			2594753	2636223	1
	Th	232	10.001	ug/L	0.251	2	1408	447555	0
	U	238	10.000	ug/L	0.082	0	31	495377	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 12:59:06
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	937495	2
	Be	9	19.889	ug/L	0.626	3	23	65838	0
	C	13		ug/L			82469	83760	1
	Cl	37		ug/L			4833777	5015006	1
>	Sc	45		ug/L			1144296	1203031	2
	V	51	19.927	ug/L	0.871	4	9450	438457	2
	V-1	51	19.937	ug/L	0.796	3	48	430653	2
	Cr	52	19.882	ug/L	0.726	3	27897	399736	1
	Cr	53	19.915	ug/L	0.482	2	145	42674	1
	Mn	55	19.903	ug/L	0.250	1	487	505631	0
	Co	59	19.922	ug/L	0.365	1	76	377606	1
>	Ge	72		ug/L			608948	619427	0
	Ni	60	19.872	ug/L	0.586	2	28	80662	2
	Ni	62	19.978	ug/L	0.244	1	64	11568	1
	Cu	63	19.942	ug/L	0.491	2	101	184224	1
	Cu	65	20.000	ug/L	0.326	1	39	84104	0
	Zn	66	19.915	ug/L	0.206	1	991	48000	1
	Zn	67	20.172	ug/L	0.803	3	141	8202	3
	Zn	68	19.995	ug/L	0.271	1	706	34526	0
	As	75	19.962	ug/L	0.565	2	318	44100	2
	As-1	75	19.960	ug/L	0.629	3	12623	54733	1
	Se	82	19.945	ug/L	0.211	1	-10	5362	0
	Se	78	19.937	ug/L	0.371	1	12864	24837	0
	Mo	98	19.937	ug/L	0.313	1	28	117336	2
	Y	89		ug/L			406158	415025	1
	Kr	83		ug/L			794	787	2
>	In	115		ug/L			1093664	1107288	0
	Ag	107	19.960	ug/L	0.354	1	42	317113	0
	Cd	111	19.974	ug/L	0.345	1	115	112498	0
	Cd	114	20.013	ug/L	0.131	0	65	276096	0
	Sb	121	19.987	ug/L	0.158	0	182	320751	0
	Sb	123	19.979	ug/L	0.469	2	151	243251	1
	Ba	135	19.995	ug/L	0.081	0	15	96982	0
	Ba	137	19.998	ug/L	0.357	1	26	168205	0
>	Tb	159		ug/L			1253683	1280440	0
	Tl	205	19.969	ug/L	0.161	0	128	720533	0
	Pb	208	19.963	ug/L	0.052	0	347	944606	0
	Bi	209		ug/L			2594753	2596363	0
	Th	232	20.056	ug/L	0.181	0	1408	904639	0
	U	238	20.006	ug/L	0.139	0	31	990473	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:03:38
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	911518	1
	Be	9	50.045	ug/L	2.119	4	23	161803	3
	C	13		ug/L			82469	83061	1
	Cl	37		ug/L			4833777	5004130	5
>	Sc	45		ug/L			1144296	1184686	0
	V	51	50.120	ug/L	0.361	0	9450	1084559	0
	V-1	51	50.086	ug/L	0.412	0	48	1074978	0
	Cr	52	49.887	ug/L	0.094	0	27897	934278	0
	Cr	53	49.773	ug/L	0.418	0	145	102509	0
	Mn	55	49.918	ug/L	0.896	1	487	1238108	1
	Co	59	49.943	ug/L	0.602	1	76	927044	1
>	Ge	72		ug/L			608948	607610	1
	Ni	60	49.876	ug/L	1.024	2	28	196115	1
	Ni	62	50.026	ug/L	1.149	2	64	28384	1
	Cu	63	49.887	ug/L	1.101	2	101	446839	0
	Cu	65	49.734	ug/L	1.230	2	39	199762	1
	Zn	66	49.933	ug/L	0.671	1	991	115798	0
	Zn	67	49.713	ug/L	1.031	2	141	19096	1
	Zn	68	49.986	ug/L	0.603	1	706	83500	2
	As	75	49.938	ug/L	1.770	3	318	107048	1
	As-1	75	50.045	ug/L	1.759	3	12623	116073	1
	Se	82	49.796	ug/L	1.538	3	-10	12880	1
	Se	78	50.169	ug/L	1.464	2	12864	42334	0
	Mo	98	49.962	ug/L	1.784	3	28	287164	1
	Y	89		ug/L			406158	412798	2
	Kr	83		ug/L			794	791	2
>	In	115		ug/L			1093664	1079743	1
	Ag	107	49.877	ug/L	2.008	4	42	763150	3
	Cd	111	49.824	ug/L	0.674	1	115	268740	0
	Cd	114	49.985	ug/L	1.102	2	65	671190	0
	Sb	121	49.988	ug/L	1.069	2	182	780941	0
	Sb	123	50.068	ug/L	0.954	1	151	598285	0
	Ba	135	50.121	ug/L	1.315	2	15	239860	1
	Ba	137	50.110	ug/L	0.856	1	26	415503	0
>	Tb	159		ug/L			1253683	1247857	0
	Tl	205	49.987	ug/L	0.044	0	128	1755322	0
	Pb	208	50.066	ug/L	0.824	1	347	2323392	0
	Bi	209		ug/L			2594753	2495502	0
	Th	232	50.402	ug/L	0.938	1	1408	2306099	1
	U	238	50.285	ug/L	0.896	1	31	2497066	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:09:51
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	891313 ✓	0
	Be	9	99.947	ug/L	0.244	0	23	315511	1
	C	13		ug/L			82469	84738	3
	Cl	37		ug/L			4833777	4953154	4
>	Sc	45		ug/L			1144296	1167146 ✓	1
	V	51	100.712	ug/L	0.245	0	9450	2189113	1
	V-1	51	100.754	ug/L	0.568	0	48	2185272	1
	Cr	52	100.321	ug/L	1.200	1	27897	1841514	1
	Cr	53	100.463	ug/L	1.519	1	145	206862	0
	Mn	55	100.840	ug/L	2.009	1	487	2534283	1
	Co	59	100.319	ug/L	0.762	0	76	1854091	0
>	Ge	72		ug/L			608948	596637 ✓	0
	Ni	60	99.944	ug/L	0.886	0	28	385176	0
	Ni	62	99.733	ug/L	2.716	2	64	55023	2
	Cu	63	99.895	ug/L	1.732	1	101	875624	1
	Cu	65	99.356	ug/L	0.798	0	39	383683	0
	Zn	66	99.899	ug/L	0.507	0	991	225790	0
	Zn	67	100.202	ug/L	3.382	3	141	37918	3
	Zn	68	99.390	ug/L	0.979	0	706	159140	0
	As	75	99.775	ug/L	0.281	0	318	208226	0
	As-1	75	100.010	ug/L	0.095	0	12623	215568	0
	Se	82	99.169	ug/L	0.106	0	-10	24527	0
	Se	78	99.962	ug/L	0.786	0	12864	70265	1
	Mo	98	99.697	ug/L	0.955	0	28	557227	0
	Y	89		ug/L			406158	413954	1
	Kr	83		ug/L			794	827	5
>	In	115		ug/L			1093664	1074124 ✓	0
	Ag	107	99.437	ug/L	0.075	0	42	1485876	0
	Cd	111	99.398	ug/L	0.423	0	115	522801	0
	Cd	114	99.030	ug/L	1.494	1	65	1281577	0
	Sb	121	99.740	ug/L	0.719	0	182	1536871	0
	Sb	123	99.505	ug/L	0.866	0	151	1163696	0
	Ba	135	99.804	ug/L	1.250	1	15	472155	0
	Ba	137	99.870	ug/L	0.938	0	26	820330	0
>	Tb	159		ug/L			1253683	1263879 ✓	0
	Tl	205	99.748	ug/L	0.778	0	128	3517940	0
	Pb	208	99.382	ug/L	1.047	1	347	4576949	0
	Bi	209		ug/L			2594753	2422857	0
	Th	232	99.471	ug/L	0.611	0	1408	4528886	0
	U	238	99.102	ug/L	1.179	1	31	4840021	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:16:44
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	904911	0
[	Be	9	0.003	ug/L	0.006	212	23	31	56
	C	13		ug/L			82469	82087	1
	Cl	37		ug/L			4833777	4891658	5
[>	Sc	45		ug/L			1144296	1137530	2
[	V	51	0.012	ug/L	0.012	99	9450	9645	0
[	V-1	51	0.003	ug/L	0.004	131	48	116	77
[	Cr	52	0.033	ug/L	0.043	131	27897	28298	0
[	Cr	53	0.003	ug/L	0.004	143	145	150	2
[	Mn	55	0.003	ug/L	0.005	159	487	554	20
[	Co	59	0.002	ug/L	0.004	207	76	109	64
[>	Ge	72		ug/L			608948	611501	1
[	Ni	60	0.003	ug/L	0.002	73	28	40	22
[	Ni	62	0.408	ug/L	0.171	41	64	295	34
[	Cu	63	0.035	ug/L	0.011	31	101	420	25
[	Cu	65	0.005	ug/L	0.001	30	39	59	11
[	Zn	66	-0.000	ug/L	0.020	879230	991	994	3
[	Zn	67	0.000	ug/L	0.016	6982	141	142	4
[	Zn	68	0.013	ug/L	0.042	319	706	730	7
[	As	75	-0.015	ug/L	0.008	50	318	287	4
[	As-1	75	-0.100	ug/L	0.177	176	12623	12464	1
[	Se	82	-0.021	ug/L	0.044	205	-10	-15	70
[	Se	78	-0.352	ug/L	0.605	171	12864	12706	1
[	Mo	98	0.020	ug/L	0.010	50	28	142	42
	Y	89		ug/L			406158	400033	1
	Kr	83		ug/L			794	773	4
[>	In	115		ug/L			1093664	1082037	1
[	Ag	107	0.006	ug/L	0.007	125	42	125	82
[	Cd	111	0.005	ug/L	0.007	142	115	141	26
[	Cd	114	0.004	ug/L	0.006	147	65	114	62
[	Sb	121	0.105	ug/L	0.005	5	182	1816	5
[	Sb	123	0.101	ug/L	0.003	3	151	1341	1
[	Ba	135	0.008	ug/L	0.014	182	15	50	128
[	Ba	137	0.008	ug/L	0.013	153	26	93	110
[>	Tb	159		ug/L			1253683	1223630	0
[	Tl	205	0.019	ug/L	0.007	35	128	769	29
[	Pb	208	0.006	ug/L	0.009	152	347	598	65
[	Bi	209		ug/L			2594753	2527112	0
[	Th	232	0.139	ug/L	0.003	2	1408	7520	1
[	U	238	0.007	ug/L	0.006	84	31	365	77

Sample Information

Sample Date/Time: Monday, November 19, 2012 13:16:44
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\111912.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**	0.004	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**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.022	0.50	10	20	50	100
Co	59	**1.0000**	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	**1.0000**	0.015	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	**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	**1.0000**	0.009	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**0.9999**	0.014	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**0.9998**	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**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.028	0.20	10	20	50	100
Pb	208	**0.9999**	0.036	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.036	0.20	10	20	50	100
U	238	**0.9998**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:23:37
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	903111	0
	Be	9	51.117	ug/L	0.622	1	23	163510	1
	C	13		ug/L			82469	82989	2
	Cl	37		ug/L			4833777	4812852	2
>	Sc	45		ug/L			1144296	1175181	1
	V	51	51.435	ug/L	1.217	2	9450	1130276	1
	V-1	51	51.240	ug/L	0.749	1	48	1118939	0
	Cr	52	51.489	ug/L	1.729	3	27897	965406	2
	Cr	53	50.829	ug/L	0.599	1	145	105465	1
	Mn	55	50.716	ug/L	1.041	2	487	1283580	1
	Co	59	50.784	ug/L	0.616	1	76	945168	1
>	Ge	72		ug/L			608948	598084	1
	Ni	60	52.750	ug/L	1.733	3	28	203725	1
	Ni	62	51.489	ug/L	1.734	3	64	28496	1
	Cu	63	52.429	ug/L	0.666	1	101	460669	0
	Cu	65	52.275	ug/L	1.631	3	39	202300	1
	Zn	66	51.456	ug/L	1.176	2	991	117026	1
	Zn	67	51.109	ug/L	1.152	2	141	19451	2
	Zn	68	50.855	ug/L	1.384	2	706	81948	2
	As	75	53.304	ug/L	0.858	1	318	111639	1
	As-1	75	52.475	ug/L	0.684	1	12623	119257	0
	Se	82	80.661	ug/L	2.056	2	-10	19991	1
	Se	78	80.195	ug/L	1.630	2	12864	58993	0
	Mo	98	49.736	ug/L	0.966	1	28	278618	0
	Y	89		ug/L			406158	403288	2
	Kr	83		ug/L			794	795	5
>	In	115		ug/L			1093664	1073418	0
	Ag	107	51.463	ug/L	0.683	1	42	768584	2
	Cd	111	50.824	ug/L	0.277	0	115	267206	1
	Cd	114	51.560	ug/L	0.734	1	65	666824	0
	Sb	121	50.588	ug/L	0.440	0	182	779044	0
	Sb	123	50.247	ug/L	0.456	0	151	587292	0
	Ba	135	51.509	ug/L	0.384	0	15	243525	0
	Ba	137	51.210	ug/L	0.517	1	26	420376	0
>	Tb	159		ug/L			1253683	1249512	0
	Tl	205	50.951	ug/L	0.609	1	128	1776517	0
	Pb	208	51.578	ug/L	0.119	0	347	2348564	0
	Bi	209		ug/L			2594753	2479132	0
	Th	232	53.164	ug/L	0.470	0	1408	2393602	0
	U	238	52.927	ug/L	0.307	0	31	2555643	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:30:29
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	871631 ✓	0
[	Be	9	-0.001	ug/L	0.001	61	23	18	13
	C	13		ug/L			82469	80983	1
	Cl	37		ug/L			4833777	4967047	4
[>	Sc	45		ug/L			1144296	1115915 ✓	0
[	V	51	0.018	ug/L	0.011	61	9450	9587	1
[	V-1	51	0.001	ug/L	0.000	68	48	60	14
[	Cr	52	0.063	ug/L	0.048	75	27897	28286	2
[	Cr	53	0.004	ug/L	0.013	348	145	149	17
[	Mn	55	-0.001	ug/L	0.001	38	487	443	3
[	Co	59	-0.000	ug/L	0.001	312	76	69	20
[>	Ge	72		ug/L			608948	593285 ✓	1
[	Ni	60	-0.000	ug/L	0.001	211	28	26	9
[	Ni	62	0.036	ug/L	0.035	97	64	82	23
[	Cu	63	0.004	ug/L	0.002	50	101	130	11
[	Cu	65	0.001	ug/L	0.001	71	39	43	8
[	Zn	66	-0.226	ug/L	0.016	7	991	459	6
[	Zn	67	-0.174	ug/L	0.031	17	141	73	16
[	Zn	68	-0.187	ug/L	0.007	3	706	391	1
[	As	75	-0.021	ug/L	0.010	48	318	265	7
[	As-1	75	0.025	ug/L	0.082	325	12623	12348	0
[	Se	82	0.022	ug/L	0.009	42	-10	-4	48
[	Se	78	0.147	ug/L	0.287	194	12864	12617	0
[	Mo	98	0.007	ug/L	0.001	18	28	67	9
	Y	89		ug/L			406158	389844	0
	Kr	83		ug/L			794	743	2
[>	In	115		ug/L			1093664	1053146 ✓	0
[	Ag	107	0.001	ug/L	0.000	52	42	51	11
[	Cd	111	0.000	ug/L	0.001	950	115	112	5
[	Cd	114	0.000	ug/L	0.000	137	65	67	9
[	Sb	121	0.030	ug/L	0.007	23	182	628	16
[	Sb	123	0.033	ug/L	0.007	21	151	520	15
[	Ba	135	-0.000	ug/L	0.001	498	15	13	27
[	Ba	137	-0.000	ug/L	0.000	455	26	24	12
[>	Tb	159		ug/L			1253683	1184900 ✓	0
[	Tl	205	0.004	ug/L	0.002	56	128	238	27
[	Pb	208	-0.002	ug/L	0.000	16	347	243	6
[	Bi	209		ug/L			2594753	2487094	1
[	Th	232	0.066	ug/L	0.004	5	1408	4129	3
[	U	238	0.002	ug/L	0.000	9	31	119	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:34:37
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	903770 ✓	1
[	Be	9	49.292	ug/L	0.322	0	23	157786	1
	C	13		ug/L			82469	82319	0
	Cl	37		ug/L			4833777	5034935	2
[>	Sc	45		ug/L			1144296	1164608 ✓	2
[	V	51	49.502	ug/L	0.801	1	9450	1078385	1
[	V-1	51	49.270	ug/L	0.817	1	48	1066159	0
[	Cr	52	50.491	ug/L	1.135	2	27897	938707	0
[	Cr	53	49.702	ug/L	1.513	3	145	102164	1
[	Mn	55	50.238	ug/L	1.326	2	487	1259770	0
[	Co	59	50.096	ug/L	2.710	5	76	923286	3
[>	Ge	72		ug/L			608948	604825 ✓	1
[	Ni	60	50.353	ug/L	0.844	1	28	196710	0
[	Ni	62	48.935	ug/L	1.020	2	64	27406	3
[	Cu	63	49.563	ug/L	0.776	1	101	440470	1
[	Cu	65	49.974	ug/L	1.047	2	39	195622	1
[	Zn	66	50.592	ug/L	1.292	2	991	116384	1
[	Zn	67	49.942	ug/L	0.643	1	141	19226	1
[	Zn	68	50.564	ug/L	0.999	1	706	82418	2
[	As	75	49.244	ug/L	0.569	1	318	104334	0
[	As-1	75	49.200	ug/L	0.783	1	12623	113865	1
[	Se	82	49.798	ug/L	0.543	1	-10	12479	0
[	Se	78	49.668	ug/L	1.030	2	12864	41815	0
[	Mo	98	49.128	ug/L	0.707	1	28	278384	2
	Y	89		ug/L			406158	402489	0
	Kr	83		ug/L			794	786	2
[>	In	115		ug/L			1093664	1081977 ✓	1
[	Ag	107	48.455	ug/L	0.279	0	42	729392	1
[	Cd	111	50.372	ug/L	0.362	0	115	266923	1
[	Cd	114	49.864	ug/L	0.870	1	65	650000	0
[	Sb	121	49.896	ug/L	0.659	1	182	774476	0
[	Sb	123	49.713	ug/L	1.122	2	151	585601	0
[	Ba	135	49.565	ug/L	0.563	1	15	236196	0
[	Ba	137	49.424	ug/L	0.770	1	26	408907	0
[>	Tb	159		ug/L			1253683	1244702 ✓	1
[	Tl	205	49.671	ug/L	0.616	1	128	1725042	0
[	Pb	208	49.921	ug/L	0.895	1	347	2263908	0
[	Bi	209		ug/L			2594753	2485023	1
[	Th	232	51.200	ug/L	0.961	1	1408	2295886	0
[	U	238	51.258	ug/L	1.339	2	31	2464617	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:41:10
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	891325	1
	Be	**9**	**0.000**	ug/L	0.002	3213	23	23	22
	C	**13**		ug/L			82469	80818	0
	Cl	**37**		ug/L			4833777	4842105	2
>	**Sc**	**45**		ug/L			1144296	1125646	1
	V	**51**	**0.013**	ug/L	0.012	88	9450	9570	1
	V-1	**51**	**0.001**	ug/L	0.001	150	48	68	47
	Cr	**52**	**0.042**	ug/L	0.051	120	27897	28166	1
	Cr	**53**	**0.001**	ug/L	0.006	1062	145	144	7
	Mn	**55**	**-0.000**	ug/L	0.001	225	487	469	4
	Co	**59**	**0.000**	ug/L	0.001	325	76	81	27
>	**Ge**	**72**		ug/L			608948	593415	1
	Ni	**60**	**0.001**	ug/L	0.001	44	28	32	7
	Ni	**62**	**0.021**	ug/L	0.011	53	64	74	7
	Cu	**63**	**0.003**	ug/L	0.001	32	101	125	5
	Cu	**65**	**0.002**	ug/L	0.003	182	39	46	29
	Zn	**66**	**-0.218**	ug/L	0.007	3	991	477	2
	Zn	**67**	**-0.184**	ug/L	0.016	8	141	69	7
	Zn	**68**	**-0.190**	ug/L	0.021	10	706	387	7
	As	**75**	**-0.008**	ug/L	0.015	186	318	293	11
	As-1	**75**	**0.059**	ug/L	0.055	93	12623	12419	0
	Se	**82**	**0.024**	ug/L	0.090	372	-10	-3	578
	Se	**78**	**0.235**	ug/L	0.231	98	12864	12670	0
	Mo	**98**	**0.007**	ug/L	0.002	21	28	68	12
	Y	**89**		ug/L			406158	395355	2
	Kr	**83**		ug/L			794	754	6
>	**In**	**115**		ug/L			1093664	1067229	0
	Ag	**107**	**0.000**	ug/L	0.001	139	42	47	18
	Cd	**111**	**0.002**	ug/L	0.001	81	115	121	6
	Cd	**114**	**-0.000**	ug/L	0.001	2577	65	63	13
	Sb	**121**	**0.054**	ug/L	0.004	7	182	1006	6
	Sb	**123**	**0.056**	ug/L	0.007	12	151	795	10
	Ba	**135**	**0.000**	ug/L	0.002	568	15	16	48
	Ba	**137**	**0.001**	ug/L	0.003	258	26	36	75
>	**Tb**	**159**		ug/L			1253683	1205647	0
	Tl	**205**	**0.010**	ug/L	0.005	50	128	467	37
	Pb	**208**	**-0.000**	ug/L	0.004	38391	347	333	50
	Bi	**209**		ug/L			2594753	2504883	1
	Th	**232**	**0.103**	ug/L	0.005	4	1408	5830	3
	U	**238**	**0.004**	ug/L	0.003	72	31	202	61

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:45:18
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	893134 ✓	0
	Be	9	0.199	ug/L	0.012	5	23	651	5
	C	13		ug/L			82469	83117	0
	Cl	37		ug/L			4833777	4902719	5
>	Sc	45		ug/L			1144296	1124137 ✓	1
	V	51	0.235	ug/L	0.023	9	9450	14182	2
	V-1	51	0.216	ug/L	0.005	2	48	4557	1
	Cr	52	0.578	ug/L	0.083	14	27897	37456	2
	Cr	53	0.511	ug/L	0.016	3	145	1154	1
	Mn	55	0.507	ug/L	0.010	1	487	12743	0
	Co	59	0.208	ug/L	0.008	3	76	3770	5
>	Ge	72		ug/L			608948	597789 ✓	0
	Ni	60	0.505	ug/L	0.021	4	28	1976	3
	Ni	62	0.483	ug/L	0.035	7	64	329	5
	Cu	63	0.533	ug/L	0.009	1	101	4781	1
	Cu	65	0.530	ug/L	0.005	1	39	2089	0
	Zn	66	4.118	ug/L	0.010	0	991	10259	1
	Zn	67	3.751	ug/L	0.123	3	141	1555	2
	Zn	68	4.057	ug/L	0.160	3	706	7173	2
	As	75	0.203	ug/L	0.018	8	318	736	4
	As-1	75	0.184	ug/L	0.097	52	12623	12765	0
	Se	82	0.568	ug/L	0.090	15	-10	130	16
	Se	78	0.452	ug/L	0.334	73	12864	12889	0
	Mo	98	0.193	ug/L	0.010	5	28	1108	6
	Y	89		ug/L			406158	387932	1
	Kr	83		ug/L			794	720	0
>	In	115		ug/L			1093664	1069689 ✓	1
	Ag	107	0.205	ug/L	0.008	3	42	3094	2
	Cd	111	0.105	ug/L	0.002	1	115	665	1
	Cd	114	0.107	ug/L	0.002	1	65	1439	0
	Sb	121	0.208	ug/L	0.003	1	182	3364	0
	Sb	123	0.204	ug/L	0.005	2	151	2527	2
	Ba	135	0.497	ug/L	0.016	3	15	2358	2
	Ba	137	0.506	ug/L	0.014	2	26	4163	2
>	Tb	159		ug/L			1253683	1219587 ✓	1
	Tl	205	0.210	ug/L	0.004	1	128	7284	1
	Pb	208	0.107	ug/L	0.004	3	347	5075	2
	Bi	209		ug/L			2594753	2520245	0
	Th	232	0.200	ug/L	0.003	1	1408	10148	2
	U	238	0.202	ug/L	0.002	1	31	9555	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:49:25
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	933240 ✓	2
[	Be	9	0.002	ug/L	0.001	79	23	30	17
	C	13		ug/L			82469	161933	1
	Cl	37		ug/L			4833777	13649840	2
[>	Sc	45		ug/L			1144296	1196251 ✓	0
[	V	51	0.187	ug/L	0.050	26	9450	14016	7
[	V-1	51	1.309	ug/L	0.042	3	48	29155	2
[	Cr	52	0.621	ug/L	0.056	9	27897	40663	1
[	Cr	53	4.402	ug/L	0.161	3	145	9436	3
[	Mn	55	0.075	ug/L	0.004	4	487	2431	3
[	Co	59	0.027	ug/L	0.002	9	76	595	8
[>	Ge	72		ug/L			608948	596554 ✓	1
[	Ni	60	0.417	ug/L	0.017	4	28	1634	2
[	Ni	62	3.824	ug/L	0.748	19	64	2171	19
[	Cu	63	1.162	ug/L	0.072	6	101	10282	6
[	Cu	65	0.426	ug/L	0.009	2	39	1683	1
[	Zn	66	1.325	ug/L	0.072	5	991	3951	2
[	Zn	67	7.599	ug/L	0.185	2	141	3002	1
[	Zn	68	0.854	ug/L	0.051	5	706	2053	3
[	As	75	0.030	ug/L	0.073	244	318	375	41
[	As-1	75	0.288	ug/L	0.077	26	12623	12949	1
[	Se	82	-0.290	ug/L	0.070	24	-10	-81	22
[	Se	78	1.045	ug/L	0.367	35	12864	13203	0
[	Mo	98	426.179 ✓	ug/L	8.621	2	28	2381373	1
	Y	89		ug/L			406158	410661	1
	Kr	83		ug/L			794	1112	4
[>	In	115		ug/L			1093664	1090181 ✓	0
[	Ag	107	0.031	ug/L	0.001	2	42	509	2
[	Cd	111	0.103	ug/L	0.001	0	115	664	0
[	Cd	114	0.258	ug/L	0.011	4	65	3457	4
[	Sb	121	0.089	ug/L	0.004	4	182	1580	4
[	Sb	123	0.088	ug/L	0.003	3	151	1192	2
[	Ba	135	0.061	ug/L	0.006	10	15	307	10
[	Ba	137	0.050	ug/L	0.001	2	26	444	2
[>	Tb	159		ug/L			1253683	1301318 ✓	0
[	Tl	205	0.041	ug/L	0.001	2	128	1613	1
[	Pb	208	0.037	ug/L	0.000	0	347	2121	0
[	Bi	209		ug/L			2594753	2448513	0
[	Th	232	0.275	ug/L	0.088	31	1408	14386	29
[	U	238	0.017	ug/L	0.001	7	31	880	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 13:55:57
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	949106	1
[	**Be**	**9**	**-0.001**	ug/L	0.001	98	23	22	6
	C	**13**		ug/L			82469	163573	1
	Cl	**37**		ug/L			4833777	13472299	4
[>	**Sc**	**45**		ug/L			1144296	1183191	1
[	**V**	**51**	**0.139**	ug/L	0.197	142	9450	12798	33
[	**V-1**	**51**	**1.313**	ug/L	0.034	2	48	28915	1
[	**Cr**	**52**	**20.777**	ug/L	0.707	3	27897	409402	1
[	**Cr**	**53**	**24.580** 123'L	ug/L	0.561	2	145	51416	1
[	**Mn**	**55**	**18.962**	ug/L	0.468	2	487	483444	1
[	**Co**	**59**	**19.414**	ug/L	0.598	3	76	363711	1
[>	**Ge**	**72**		ug/L			608948	582334	2
[	**Ni**	**60**	**20.631**	ug/L	0.605	2	28	77584	0
[	**Ni**	**62**	**24.400** 121.	ug/L	0.644	2	64	13190	4
[	**Cu**	**63**	**20.840**	ug/L	0.408	1	101	178325	1
[	**Cu**	**65**	**20.444**	ug/L	0.646	3	39	77041	0
[	**Zn**	**66**	**19.923**	ug/L	1.212	6	991	44661	3
[	**Zn**	**67**	**24.004** 120'L	ug/L	1.174	4	141	8961	3
[	**Zn**	**68**	**18.896**	ug/L	0.630	3	706	30060	0
[	**As**	**75**	**19.324**	ug/L	0.577	2	318	39585	0
[	**As-1**	**75**	**20.242**	ug/L	0.731	3	12623	52186	0
[	**Se**	**82**	**-0.310**	ug/L	0.054	17	-10	-84	15
[	**Se**	**78**	**1.613**	ug/L	0.486	30	12864	13206	1
[	**Mo**	**98**	**433.367** ✓	ug/L	7.246	1	28	2363357	1
	Y	**89**		ug/L			406158	411500	0
	Kr	**83**		ug/L			794	1091	4
[>	**In**	**115**		ug/L			1093664	1091485	0
[	**Ag**	**107**	**20.390**	ug/L	0.400	1	42	309611	1
[	**Cd**	**111**	**19.630**	ug/L	0.220	1	115	105001	0
[	**Cd**	**114**	**19.864**	ug/L	0.154	0	65	261299	1
[	**Sb**	**121**	**0.062**	ug/L	0.002	3	182	1158	3
[	**Sb**	**123**	**0.063**	ug/L	0.002	3	151	896	2
[	**Ba**	**135**	**0.055**	ug/L	0.004	7	15	278	7
[	**Ba**	**137**	**0.043**	ug/L	0.001	3	26	383	2
[>	**Tb**	**159**		ug/L			1253683	1319580	0
[	**Tl**	**205**	**0.031**	ug/L	0.001	3	128	1272	3
[	**Pb**	**208**	**0.028**	ug/L	0.001	3	347	1694	2
[	**Bi**	**209**		ug/L			2594753	2456397	0
[	**Th**	**232**	**0.083**	ug/L	0.013	15	1408	5408	11
[	**U**	**238**	**0.000**	ug/L	0.000	120	31	36	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:02:48
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	885249	2
[	Be	9	192.971	ug/L	1.965	1	23	604913	1
	C	13		ug/L			82469	83802	0
	Cl	37		ug/L			4833777	4959944	1
[>	Sc	45		ug/L			1144296	1101531	0
[	V	51	202.468	ug/L	6.462	3	9450	4143661	2
[	V-1	51	202.615	ug/L	6.101	3	48	4147011	2
[	Cr	52	204.853	ug/L	3.623	1	27897	3520765	1
[	Cr	53	205.331	ug/L	3.024	1	145	398917	1
[	Mn	55	200.642	ug/L	5.411	2	487	4758412	1
[	Co	59	203.718	ug/L	2.196	1	76	3553563	1
[>	Ge	72		ug/L			608948	557620	1
[	Ni	60	198.875	ug/L	7.392	3	28	716041	2
[	Ni	62	199.749	ug/L	4.254	2	64	102923	1
[	Cu	63	195.425	ug/L	2.883	1	101	1600798	1
[	Cu	65	198.990	ug/L	3.498	1	39	718014	0
[	Zn	66	194.019	ug/L	6.246	3	991	408862	1
[	Zn	67	196.969	ug/L	5.568	2	141	69509	1
[	Zn	68	194.304	ug/L	5.991	3	706	290053	1
[	As	75	201.660	ug/L	4.999	2	318	392957	1
[	As-1	75	201.744	ug/L	5.555	2	12623	394566	1
[	Se	82	196.736	ug/L	2.658	1	-10	45480	0
[	Se	78	196.909	ug/L	3.705	1	12864	117908	0
[	Mo	98	219.763	ug/L	5.564	2	28	1147654	1
	Y	89		ug/L			406158	381681	1
	Kr	83		ug/L			794	1006	1
[>	In	115		ug/L			1093664	1041060	0
[	Ag	107	200.670	ug/L	3.486	1	42	2905953	0
[	Cd	111	196.310	ug/L	3.041	1	115	1000550	0
[	Cd	114	203.688	ug/L	3.325	1	65	2554692	0
[	Sb	121	206.075	ug/L	2.958	1	182	3077238	0
[	Sb	123	207.014	ug/L	2.378	1	151	2346177	0
[	Ba	135	207.696	ug/L	3.195	1	15	952347	1
[	Ba	137	207.820	ug/L	3.354	1	26	1654389	1
[>	Tb	159		ug/L			1253683	1246595	1
[	Tl	205	199.665	ug/L	2.235	1	128	6944940	0
[	Pb	208	199.782	ug/L	2.153	1	347	9074007	0
[	Bi	209		ug/L			2594753	2346766	1
[	Th	232	198.762	ug/L	2.437	1	1408	8923629	0
[	U	238	198.065	ug/L	3.404	1	31	9539862	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:09:40
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	839331	1
[	Be	9	284.060	ug/L	5.216	1	23	844472	2
	C	13		ug/L			82469	85852	3
	Cl	37		ug/L			4833777	4820895	3
[>	Sc	45		ug/L			1144296	1079541	1
[	V	51	314.543	ug/L	4.447	1	9450	6304538	1
[	V-1	51	312.658	ug/L	5.271	1	48	6271957	1
[	Cr	52	309.016	ug/L	8.336	2	27897	5190673	1
[	Cr	53	302.704	ug/L	8.567	2	145	576126	1
[	Mn	55	300.072	ug/L	4.663	1	487	6974420	1
[	Co	59	301.836	ug/L	6.083	2	76	5158867	0
[>	Ge	72		ug/L			608948	540205	0
[	Ni	60	303.348	ug/L	7.327	2	28	1058385	1
[	Ni	62	303.759	ug/L	4.889	1	64	151627	1
[	Cu	63	300.668	ug/L	4.705	1	101	2386208	1
[	Cu	65	293.244	ug/L	3.239	1	39	1025245	1
[	Zn	66	284.133	ug/L	2.779	0	991	579850	1
[	Zn	67	287.992	ug/L	2.251	0	141	98428	0
[	Zn	68	284.902	ug/L	2.443	0	706	411878	1
[	As	75	303.660	ug/L	3.592	1	318	573209	1
[	As-1	75	305.872	ug/L	4.568	1	12623	573881	1
[	Se	82	280.727	ug/L	1.782	0	-10	62883	0
[	Se	78	286.966	ug/L	1.194	0	12864	161279	0
[	Mo	98	317.096	ug/L	3.353	1	28	1604613	0
	Y	89		ug/L			406158	364085	1
	Kr	83		ug/L			794	1142	2
[>	In	115		ug/L			1093664	1002433	0
[	Ag	107	277.144	ug/L	5.605	2	42	3865061	2
[	Cd	111	293.844	ug/L	3.131	1	115	1442191	1
[	Cd	114	303.685	ug/L	2.098	0	65	3667862	0
[	Sb	121	305.731	ug/L	3.129	1	182	4396158	0
[	Sb	123	303.069	ug/L	1.832	0	151	3307496	0
[	Ba	135	313.585	ug/L	3.202	1	15	1384530	1
[	Ba	137	319.477	ug/L	3.430	1	26	2449007	0
[>	Tb	159		ug/L			1253683	1210317	0
[	Tl	205	300.480	ug/L	3.347	1	128	10147464	0
[	Pb	208	298.242	ug/L	3.569	1	347	13151863	0
[	Bi	209		ug/L			2594753	2231606	0
[	Th	232	297.298	ug/L	2.785	0	1408	12959068	0
[	U	238	293.602	ug/L	1.050	0	31	13731411	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:16:31
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	867320	1
[	Be	9	0.004	ug/L	0.005	120	23	34	41
	C	13		ug/L			82469	81956	2
	Cl	37		ug/L			4833777	4844981	3
[>	Sc	45		ug/L			1144296	1090583	2
|	V	51	0.026	ug/L	0.008	31	9450	9536	3
|	V-1	51	0.015	ug/L	0.002	12	48	358	10
|	Cr	52	0.083	ug/L	0.027	32	27897	27993	2
|	Cr	53	0.047	ug/L	0.011	22	145	228	6
|	Mn	55	0.016	ug/L	0.002	14	487	837	6
[	Co	59	0.003	ug/L	0.002	74	76	117	30
[>	Ge	72		ug/L			608948	571127	2
|	Ni	60	0.043	ug/L	0.005	11	28	186	7
|	Ni	62	1.814	ug/L	0.671	37	64	1013	33
|	Cu	63	0.152	ug/L	0.043	28	101	1362	25
|	Cu	65	0.037	ug/L	0.011	28	39	174	20
|	Zn	66	0.311	ug/L	0.031	10	991	1599	2
|	Zn	67	0.325	ug/L	0.045	13	141	250	4
|	Zn	68	0.330	ug/L	0.038	11	706	1165	3
|	As	75	0.003	ug/L	0.014	486	318	304	8
|	As-1	75	0.189	ug/L	0.166	87	12623	12202	0
|	Se	82	0.017	ug/L	0.112	662	-10	-5	483
|	Se	78	0.682	ug/L	0.575	84	12864	12437	0
[	Mo	98	0.045	ug/L	0.001	2	28	267	4
	Y	89		ug/L			406158	372021	1
	Kr	83		ug/L			794	751	8
[>	In	115		ug/L			1093664	1084321	1
|	Ag	107	0.010	ug/L	0.006	59	42	194	47
|	Cd	111	0.013	ug/L	0.019	143	115	184	54
|	Cd	114	0.013	ug/L	0.017	124	65	239	90
|	Sb	121	0.299	ug/L	0.028	9	182	4826	8
|	Sb	123	0.291	ug/L	0.030	10	151	3587	9
|	Ba	135	0.016	ug/L	0.010	60	15	92	50
[	Ba	137	0.014	ug/L	0.007	51	26	144	42
[>	Tb	159		ug/L			1253683	1198272	0
|	Tl	205	0.043	ug/L	0.020	46	128	1553	43
|	Pb	208	0.014	ug/L	0.005	34	347	958	22
|	Bi	209		ug/L			2594753	2501366	0
|	Th	232	0.201	ug/L	0.008	3	1408	10038	2
[	U	238	0.010	ug/L	0.005	47	31	471	44

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:22:33
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	860616	0
	Be	9	-0.001	ug/L	0.001	105	23	19	12
	C	13		ug/L			82469	83110	1
	Cl	37		ug/L			4833777	4711241	1
>	Sc	45		ug/L			1144296	1084304	0
	V	51	0.029	ug/L	0.019	66	9450	9535	3
	V-1	51	0.010	ug/L	0.001	13	48	242	10
	Cr	52	0.103	ug/L	0.065	62	27897	28167	3
	Cr	53	0.038	ug/L	0.004	10	145	211	4
	Mn	55	0.009	ug/L	0.001	6	487	668	1
	Co	59	0.001	ug/L	0.001	132	76	85	20
>	Ge	72		ug/L			608948	570146	2
	Ni	60	0.042	ug/L	0.002	4	28	183	2
	Ni	62	0.261	ug/L	0.102	39	64	196	25
	Cu	63	0.027	ug/L	0.004	13	101	322	7
	Cu	65	0.016	ug/L	0.002	15	39	95	7
	Zn	66	0.012	ug/L	0.006	46	991	954	2
	Zn	67	0.066	ug/L	0.016	25	141	156	5
	Zn	68	0.037	ug/L	0.036	98	706	717	7
	As	75	-0.005	ug/L	0.020	366	318	287	13
	As-1	75	0.178	ug/L	0.188	105	12623	12159	0
	Se	82	-0.034	ug/L	0.049	143	-10	-17	64
	Se	78	0.631	ug/L	0.669	106	12864	12387	0
	Mo	98	0.012	ug/L	0.002	16	28	93	12
	Y	89		ug/L			406158	371164	1
	Kr	83		ug/L			794	759	1
>	In	115		ug/L			1093664	1052022	0
	Ag	107	0.002	ug/L	0.001	48	42	64	17
	Cd	111	0.000	ug/L	0.000	99	115	112	0
	Cd	114	0.001	ug/L	0.000	15	65	73	1
	Sb	121	0.079	ug/L	0.009	10	182	1368	9
	Sb	123	0.079	ug/L	0.011	13	151	1051	11
	Ba	135	0.006	ug/L	0.001	9	15	43	6
	Ba	137	0.007	ug/L	0.001	21	26	80	14
>	Tb	159		ug/L			1253683	1189207	0
	Tl	205	0.019	ug/L	0.010	53	128	756	44
	Pb	208	0.005	ug/L	0.001	11	347	536	3
	Bi	209		ug/L			2594753	2517677	0
	Th	232	0.049	ug/L	0.003	6	1408	3436	4
	U	238	0.002	ug/L	0.000	7	31	103	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:28:04
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	890802	1
	Be	9	-0.001	ug/L	0.002	199	23	20	23
	C	13		ug/L			82469	82217	1
	Cl	37		ug/L			4833777	4754829	3
>	Sc	45		ug/L			1144296	1081393	2
	V	51	0.024	ug/L	0.011	45	9450	9416	2
	V-1	51	0.009	ug/L	0.000	4	48	224	2
	Cr	52	0.092	ug/L	0.047	50	27897	27898	2
	Cr	53	0.040	ug/L	0.013	32	145	213	9
	Mn	55	0.016	ug/L	0.001	4	487	825	0
	Co	59	0.001	ug/L	0.001	50	76	90	11
>	Ge	72		ug/L			608948	581858	0
	Ni	60	0.054	ug/L	0.005	9	28	231	7
	Ni	62	0.091	ug/L	0.014	15	64	110	6
	Cu	63	0.185	ug/L	0.006	3	101	1680	2
	Cu	65	0.186	ug/L	0.006	3	39	736	3
	Zn	66	0.591	ug/L	0.032	5	991	2244	2
	Zn	67	0.577	ug/L	0.049	8	141	347	4
	Zn	68	0.572	ug/L	0.044	7	706	1563	3
	As	75	0.005	ug/L	0.011	202	318	314	6
	As-1	75	0.013	ug/L	0.028	214	12623	12087	0
	Se	82	-0.005	ug/L	0.024	465	-10	-11	54
	Se	78	0.013	ug/L	0.086	642	12864	12299	0
	Mo	98	0.005	ug/L	0.001	25	28	55	13
	Y	89		ug/L			406158	370589	0
	Kr	83		ug/L			794	753	5
>	In	115		ug/L			1093664	1078900	1
	Ag	107	0.001	ug/L	0.000	10	42	51	1
	Cd	111	0.001	ug/L	0.003	357	115	118	12
	Cd	114	0.000	ug/L	0.001	293	65	68	15
	Sb	121	0.036	ug/L	0.005	14	182	744	12
	Sb	123	0.036	ug/L	0.006	17	151	569	14
	Ba	135	0.029	ug/L	0.006	19	15	151	16
	Ba	137	0.027	ug/L	0.001	2	26	251	3
>	Tb	159		ug/L			1253683	1210363	0
	Tl	205	0.011	ug/L	0.006	59	128	483	43
	Pb	208	0.016	ug/L	0.001	5	347	1028	4
	Bi	209		ug/L			2594753	2516683	1
	Th	232	0.022	ug/L	0.003	12	1408	2339	5
	U	238	0.001	ug/L	0.000	19	31	60	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:32:14
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	898775	1
	Be	9	48.711	ug/L	0.735	1	23	155063	1
	C	13		ug/L			82469	81126	0
	Cl	37		ug/L			4833777	4773762	1
>	Sc	45		ug/L			1144296	1126311	1
	V	51	49.927	ug/L	0.880	1	9450	1051876	1
	V-1	51	49.756	ug/L	0.850	1	48	1041398	1
	Cr	52	50.582	ug/L	1.288	2	27897	909515	1
	Cr	53	50.001	ug/L	1.104	2	145	99424	1
	Mn	55	49.238	ug/L	0.656	1	487	1194421	0
	Co	59	49.700	ug/L	0.909	1	76	886453	1
>	Ge	72		ug/L			608948	591497	1
	Ni	60	49.289	ug/L	0.726	1	28	188301	0
	Ni	62	48.487	ug/L	0.370	0	64	26552	1
	Cu	63	49.319	ug/L	1.538	3	101	428551	2
	Cu	65	50.463	ug/L	1.959	3	39	193117	1
	Zn	66	50.227	ug/L	0.884	1	991	113004	1
	Zn	67	50.151	ug/L	0.429	0	141	18879	1
	Zn	68	49.879	ug/L	1.887	3	706	79481	1
	As	75	49.251	ug/L	0.708	1	318	102036	0
	As-1	75	49.555	ug/L	1.008	2	12623	112054	0
	Se	82	48.469	ug/L	1.210	2	-10	11876	1
	Se	78	49.426	ug/L	2.128	4	12864	40745	1
	Mo	98	47.914	ug/L	1.389	2	28	265454	2
	Y	89		ug/L			406158	383466	0
	Kr	83		ug/L			794	756	1
>	In	115		ug/L			1093664	1074282	0
	Ag	107	47.737	ug/L	1.004	2	42	713420	1
	Cd	111	50.609	ug/L	0.308	0	115	266279	0
	Cd	114	51.299	ug/L	0.579	1	65	664016	0
	Sb	121	50.005	ug/L	0.260	0	182	770721	0
	Sb	123	49.875	ug/L	0.321	0	151	583436	0
	Ba	135	50.753	ug/L	0.267	0	15	240151	0
	Ba	137	50.456	ug/L	0.935	1	26	414508	1
>	Tb	159		ug/L			1253683	1248627	1
	Tl	205	49.491	ug/L	0.080	0	128	1724501	1
	Pb	208	49.219	ug/L	0.258	0	347	2239550	0
	Bi	209		ug/L			2594753	2487148	1
	Th	232	51.137	ug/L	0.579	1	1408	2300655	0
	U	238	51.012	ug/L	0.538	1	31	2461299	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 14:39:06
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	878296	2
[	Be	9	-0.002	ug/L	0.001	87	23	17	21
	C	13		ug/L			82469	82915	0
	Cl	37		ug/L			4833777	4656435	5
[>	Sc	45		ug/L			1144296	1081466	1
[	V	51	0.022	ug/L	0.011	52	9450	9366	1
[	V-1	51	0.005	ug/L	0.001	20	48	137	12
[	Cr	52	0.070	ug/L	0.032	44	27897	27540	0
[	Cr	53	0.012	ug/L	0.005	42	145	160	6
[	Mn	55	0.000	ug/L	0.001	574	487	465	4
[	Co	59	0.001	ug/L	0.000	84	76	80	8
[>	Ge	72		ug/L			608948	577264	0
[	Ni	60	-0.000	ug/L	0.000	70	28	26	3
[	Ni	62	0.022	ug/L	0.010	43	64	72	7
[	Cu	63	0.006	ug/L	0.003	46	101	145	16
[	Cu	65	0.001	ug/L	0.000	25	39	42	3
[	Zn	66	-0.218	ug/L	0.005	2	991	464	2
[	Zn	67	-0.186	ug/L	0.015	7	141	66	7
[	Zn	68	-0.205	ug/L	0.011	5	706	353	5
[	As	75	0.002	ug/L	0.016	693	318	306	10
[	As-1	75	0.081	ug/L	0.091	111	12623	12126	1
[	Se	82	0.011	ug/L	0.024	215	-10	-7	81
[	Se	78	0.268	ug/L	0.349	130	12864	12345	1
[	Mo	98	0.009	ug/L	0.003	30	28	76	19
	Y	89		ug/L			406158	372650	1
	Kr	83		ug/L			794	738	4
[>	In	115		ug/L			1093664	1064552	1
[	Ag	107	0.000	ug/L	0.001	516	42	43	25
[	Cd	111	0.001	ug/L	0.001	126	115	115	1
[	Cd	114	-0.000	ug/L	0.001	362	65	61	15
[	Sb	121	0.066	ug/L	0.009	13	182	1194	12
[	Sb	123	0.064	ug/L	0.006	9	151	892	9
[	Ba	135	0.001	ug/L	0.000	81	15	17	10
[	Ba	137	-0.000	ug/L	0.000	400	26	25	10
[>	Tb	159		ug/L			1253683	1189174	0
[	Tl	205	0.009	ug/L	0.005	58	128	430	42
[	Pb	208	-0.002	ug/L	0.001	39	347	237	16
[	Bi	209		ug/L			2594753	2510530	1
[	Th	232	0.101	ug/L	0.004	4	1408	5648	3
[	U	238	0.002	ug/L	0.000	4	31	125	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 14:46:13
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	932146	0
	Be	9	0.169	ug/L	0.012	7	23	580	7
	C	13		ug/L			82469	88088	2
	Cl	37		ug/L			4833777	4680350	0
>	Sc	45		ug/L			1144296	1166115	0
	V	51	5.661	ug/L	0.064	1	9450	132035	0
	V-1	51	5.687	ug/L	0.076	1	48	123291	1
	Cr	52	6.611	ug/L	0.246	3	27897	147784	2
	Cr	53	6.692	ug/L	0.230	3	145	13903	2
	Mn	55	247.985	ug/L	5.657	2	487	6226192	1
	Co	59	1.854	ug/L	0.023	1	76	34318	2
>	Ge	72		ug/L			608948	600091	1
	Ni	60	6.640	ug/L	0.227	3	28	25755	1
	Ni	62	6.777	ug/L	0.136	2	64	3820	3
	Cu	63	3.696	ug/L	0.101	2	101	32669	1
	Cu	65	3.781	ug/L	0.087	2	39	14717	0
	Zn	66	45.079	ug/L	1.089	2	991	103000	2
	Zn	67	46.226	ug/L	0.606	1	141	17669	2
	Zn	68	46.348	ug/L	1.519	3	706	74982	1
	As	75	3.275	ug/L	0.018	0	318	7177	2
	As-1	75	3.170	ug/L	0.109	3	12623	18915	0
	Se	82	0.058	ug/L	0.019	33	-10	4	110
	Se	78	-0.576	ug/L	0.419	72	12864	12340	0
	Mo	98	0.109	ug/L	0.006	5	28	639	7
	Y	89		ug/L			406158	428363	2
	Kr	83		ug/L			794	799	2
>	In	115		ug/L			1093664	1102223	1
	Ag	107	~ 0.037	ug/L	0.001	1	42	609	2
	Cd	111	0.476	ug/L	0.015	3	115	2683	1
	Cd	114	0.435	ug/L	0.011	2	65	5845	0
	Sb	121	0.038	ug/L	0.005	12	182	789	10
	Sb	123	0.035	ug/L	0.004	10	151	578	7
	Ba	135	81.781	ug/L	0.873	1	15	397012	1
	Ba	137	81.684	ug/L	0.575	0	26	688493	1
>	Tb	159		ug/L			1253683	1259706	0
	Tl	205	0.042	ug/L	0.004	9	128	1622	8
	Pb	208	12.480	ug/L	0.096	0	347	573148	0
	Bi	209		ug/L			2594753	2586304	0
	Th	232	1.168	ug/L	0.021	1	1408	54391	0
	U	238	0.139	ug/L	0.003	2	31	6777	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 14:50:21
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	949944	1
[	Be	9	0.847	ug/L	0.005	0	23	2873	0
	C	13		ug/L			82469	112257	2
	Cl	37		ug/L			4833777	4693091	0
[>	Sc	45		ug/L			1144296	1289214	0
[	V	51	26.295	ug/L	0.297	1	9450	639227	1
[	V-1	51	26.319	ug/L	0.253	0	48	630611	1
[	Cr	52	30.679	ug/L	0.761	2	27897	643846	1
[	Cr	53	30.724	ug/L	0.277	0	145	69999	0
[	Mn	55	1114.230	ug/L	12.560	1	487	30930615	1
[	Co	59	8.483	ug/L	0.050	0	76	173274	0
[>	Ge	72		ug/L			608948	600942	0
[	Ni	60	33.030	ug/L	0.495	1	28	128226	0
[	Ni	62	34.091	ug/L	0.319	0	64	18986	1
[	Cu	63	18.104	ug/L	0.370	2	101	159904	1
[	Cu	65	18.753	ug/L	0.277	1	39	72968	0
[	Zn	66	216.399	ug/L	4.930	2	991	491426	1
[	Zn	67	225.621	ug/L	3.459	1	141	85804	0
[	Zn	68	231.885	ug/L	2.474	1	706	373045	1
[	As	75	16.375	ug/L	0.213	1	318	34682	1
[	As-1	75	16.593	ug/L	0.283	1	12623	46411	0
[	Se	82	-0.286	ug/L	0.041	14	-10	-81	11
[	Se	78	-0.225	ug/L	0.252	111	12864	12563	0
[	Mo	98	0.555	ug/L	0.013	2	28	3155	3
	Y	89		ug/L			406158	570465	1
	Kr	83		ug/L			794	1366	1
[>	In	115		ug/L			1093664	1083557	0
[	Ag	107	0.202	ug/L	0.010	4	42	3087	3
[	Cd	111	2.358	ug/L	0.058	2	115	12619	1
[	Cd	114	2.163	ug/L	0.062	2	65	28296	2
[	Sb	121	0.085	ug/L	0.005	5	182	1495	4
[	Sb	123	0.084	ug/L	0.004	4	151	1137	3
[	Ba	135	439.440	ug/L	6.888	1	15	2097098	1
[	Ba	137	424.118	ug/L	9.925	2	26	3513874	1
[>	Tb	159		ug/L			1253683	1274577	0
[	Tl	205	0.192	ug/L	0.005	2	128	6974	2
[	Pb	208	62.042	ug/L	0.683	1	347	2881719	1
[	Bi	209		ug/L			2594753	2483825	0
[	Th	232	5.618	ug/L	0.051	0	1408	259326	1
[	U	238	0.693	ug/L	0.002	0	31	34145	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 14:54:29
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	936726	0
[	**Be**	**9**	**0.820**	ug/L	0.028	3	23	2745	2
	C	**13**		ug/L			82469	112751	3
	Cl	**37**		ug/L			4833777	4763014	5
[>	**Sc**	**45**		ug/L			1144296	1291942	0
[	**V**	**51**	**29.393**	ug/L	0.036	0	9450	714763	0
[	**V-1**	**51**	**29.377**	ug/L	0.246	0	48	705358	1
[	**Cr**	**52**	**29.489**	ug/L	0.923	3	27897	621450	3
[	**Cr**	**53**	**29.437**	ug/L	0.136	0	145	67216	0
[	**Mn**	**55**	**1013.202**	ug/L	17.797	1	487	28183015	1
[	**Co**	**59**	**8.429**	ug/L	0.099	1	76	172533	1
[>	**Ge**	**72**		ug/L			608948	594117	1
[	**Ni**	**60**	**33.179**	ug/L	0.263	0	28	127344	0
[	**Ni**	**62**	**34.160**	ug/L	0.819	2	64	18806	1
[	**Cu**	**63**	**17.631**	ug/L	0.338	1	101	153953	0
[	**Cu**	**65**	**17.887**	ug/L	0.363	2	39	68811	2
[	**Zn**	**66**	**207.696**	ug/L	6.548	3	991	466324	2
[	**Zn**	**67**	**210.793**	ug/L	2.215	1	141	79265	1
[	**Zn**	**68**	**220.813**	ug/L	3.977	1	706	351169	0
[	**As**	**75**	**15.188**	ug/L	0.151	0	318	31824	0
[	**As-1**	**75**	**15.430**	ug/L	0.260	1	12623	43529	0
[	**Se**	**82**	**-0.218**	ug/L	0.064	29	-10	-63	24
[	**Se**	**78**	**-0.011**	ug/L	0.368	3350	12864	12543	0
[	**Mo**	**98**	**0.596**	ug/L	0.009	1	28	3344	1
	Y	**89**		ug/L			406158	574518	1
	Kr	**83**		ug/L			794	1314	1
[>	**In**	**115**		ug/L			1093664	1085695	0
[	**Ag**	**107**	**0.184**	ug/L	0.007	3	42	2813	4
[	**Cd**	**111**	**2.069**	ug/L	0.059	2	115	11112	2
[	**Cd**	**114**	**1.900**	ug/L	0.036	1	65	24912	1
[	**Sb**	**121**	**0.079**	ug/L	0.003	3	182	1405	3
[	**Sb**	**123**	**0.078**	ug/L	0.003	3	151	1068	2
[	**Ba**	**135**	**385.617**	ug/L	1.977	0	15	1843977	0
[	**Ba**	**137**	**397.305**	ug/L	2.129	0	26	3298672	0
[>	**Tb**	**159**		ug/L			1253683	1290343	1
[	**Tl**	**205**	**0.181**	ug/L	0.005	2	128	6639	2
[	**Pb**	**208**	**53.888**	ug/L	1.008	1	347	2533623	0
[	**Bi**	**209**		ug/L			2594753	2489806	0
[	**Th**	**232**	**5.561**	ug/L	0.034	0	1408	259841	0
[	**U**	**238**	**0.651**	ug/L	0.007	1	31	32488	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 14:58:36
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	940430	1
	Be	9	25.099	ug/L	0.441	1	23	83598	0
	C	13		ug/L			82469	100124	2
	Cl	37		ug/L			4833777	4835756	1
>	Sc	45		ug/L			1144296	1245810	1
	V	51	56.566	ug/L	0.794	1	9450	1316836	1
	V-1	51	56.497	ug/L	0.392	0	48	1307972	0
	Cr	52	58.595	ug/L	0.892	1	27897	1160694	1
	Cr	53	58.347	ug/L	0.533	0	145	128324	1
	Mn	55	1102.214	ug/L	22.034	1	487	29570175	3
	Co	59	35.062	ug/L	0.914	2	76	691643	1
>	Ge	72		ug/L			608948	598771	0
	Ni	60	58.081	ug/L	0.739	1	28	224654	1
	Ni	62	60.835	ug/L	0.777	1	64	33709	0
	Cu	63	43.389	ug/L	0.265	0	101	381761	1
	Cu	65	44.181	ug/L	0.561	1	39	171253	1
	Zn	66	277.397	ug/L	5.404	1	991	627454	1
	Zn	67	279.510	ug/L	7.051	2	141	105883	2
	Zn	68	295.753	ug/L	6.567	2	706	473849	1
	As	75	41.908	ug/L	0.621	1	318	87953	1
	As-1	75	41.448	ug/L	0.220	0	12623	96925	0
	Se	82	75.028	ug/L	1.605	2	-10	18619	1
	Se	78	77.108	ug/L	0.376	0	12864	57284	0
	Mo	98	22.723	ug/L	0.161	0	28	127482	0
	Y	89		ug/L			406158	569354	0
	Kr	83		ug/L			794	1331	3
>	In	115		ug/L			1093664	1061447	0
	Ag	107	22.960	ug/L	0.171	0	42	339068	0
	Cd	111	27.027	ug/L	0.514	1	115	140562	2
	Cd	114	27.445	ug/L	0.189	0	65	351045	0
	Sb	121	1.777	ug/L	0.007	0	182	27231	0
	Sb	123	1.781	ug/L	0.019	1	151	20723	1
	Ba	135	436.734	ug/L	10.993	2	15	2041662	2
	Ba	137	428.843	ug/L	5.536	1	26	3480826	0
>	Tb	159		ug/L			1253683	1271378	0
	Tl	205	25.314	ug/L	0.217	0	128	898137	0
	Pb	208	83.547	ug/L	0.329	0	347	3870571	0
	Bi	209		ug/L			2594753	2452287	0
	Th	232	31.079	ug/L	0.063	0	1408	1424394	0
	U	238	25.903	ug/L	0.534	2	31	1272478	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:02:44
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	938935	0
[	Be	9	0.474	ug/L	0.015	3	23	1599	3
	C	13		ug/L			82469	118557	0
	Cl	37		ug/L			4833777	4674870	1
[>	Sc	45		ug/L			1144296	1267782	0
|	V	51	26.792	ug/L	0.344	1	9450	640253	1
|	V-1	51	26.847	ug/L	0.197	0	48	632546	0
|	Cr	52	16.461	ug/L	0.171	1	27897	354070	0
|	Cr	53	16.724	ug/L	0.371	2	145	37545	2
|	Mn	55	1346.126	ug/L	7.024	0	487	36745445	0
[	Co	59	6.786	ug/L	0.008	0	76	136323	0
[>	Ge	72		ug/L			608948	602744	0
|	Ni	60	13.783	ug/L	0.342	2	28	53685	2
|	Ni	62	15.208	ug/L	0.107	0	64	8530	0
|	Cu	63	16.647	ug/L	0.290	1	101	147499	1
|	Cu	65	17.114	ug/L	0.157	0	39	66798	1
|	Zn	66	269.258	ug/L	0.444	0	991	613148	0
|	Zn	67	268.300	ug/L	4.924	1	141	102320	1
|	Zn	68	277.910	ug/L	6.717	2	706	448273	2
|	As	75	17.694	ug/L	0.195	1	318	37563	0
|	As-1	75	17.966	ug/L	0.244	1	12623	49371	0
|	Se	82	-0.035	ug/L	0.026	76	-10	-18	35
|	Se	78	-0.306	ug/L	0.177	57	12864	12555	0
[	Mo	98	0.460	ug/L	0.019	4	28	2626	4
	Y	89		ug/L			406158	518076	1
	Kr	83		ug/L			794	1057	2
[>	In	115		ug/L			1093664	1109524	0
|	Ag	107	~~0.126~~	ug/L	0.003	2	42	1985	2
|	Cd	111	5.340	ug/L	0.042	0	115	29120	0
|	Cd	114	5.290	ug/L	0.026	0	65	70776	0
|	Sb	121	0.447	ug/L	0.009	1	182	7292	1
|	Sb	123	0.448	ug/L	0.011	2	151	5563	2
|	Ba	135	345.600	ug/L	5.452	1	15	1688867	1
[	Ba	137	350.175	ug/L	3.576	1	26	2971216	1
[>	Tb	159		ug/L			1253683	1265353	0
|	Tl	205	0.327	ug/L	0.003	0	128	11686	0
|	Pb	208	248.515	ug/L	2.761	1	347	11457773	0
|	Bi	209		ug/L			2594753	2501343	0
|	Th	232	5.420	ug/L	0.044	0	1408	248418	1
[	U	238	0.510	ug/L	0.002	0	31	24965	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:06:51
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	926834	1
[	**Be**	**9**	**0.664**	ug/L	0.028	4	23	2202	2
	C	**13**		ug/L			82469	114342	1
	Cl	**37**		ug/L			4833777	4705789	1
[>	**Sc**	**45**		ug/L			1144296	1243574	2
[	**V**	**51**	**23.636**	ug/L	0.724	3	9450	555023	1
[	**V-1**	**51**	**23.592**	ug/L	0.807	3	48	544978	1
[	**Cr**	**52**	**20.893**	ug/L	0.489	2	27897	432500	0
[	**Cr**	**53**	**20.766**	ug/L	0.794	3	145	45660	1
[	**Mn**	**55**	**725.488**	ug/L	28.932	3	487	19412395	1
[	**Co**	**59**	**6.319**	ug/L	0.185	2	76	124463	0
[>	**Ge**	**72**		ug/L			608948	591666	1
[	**Ni**	**60**	**20.420**	ug/L	0.353	1	28	78060	1
[	**Ni**	**62**	**21.109**	ug/L	0.481	2	64	11597	1
[	**Cu**	**63**	**17.874**	ug/L	0.394	2	101	155430	1
[	**Cu**	**65**	**18.485**	ug/L	0.301	1	39	70828	2
[	**Zn**	**66**	**86.491**	ug/L	2.168	2	991	193949	1
[	**Zn**	**67**	**101.213**	ug/L	1.547	1	141	37972	0
[	**Zn**	**68**	**97.904**	ug/L	1.734	1	706	155447	0
[	**As**	**75**	**6.592**	ug/L	0.147	2	318	13929	1
[	**As-1**	**75**	**6.655**	ug/L	0.228	3	12623	25669	0
[	**Se**	**82**	**-0.235**	ug/L	0.081	34	-10	-67	30
[	**Se**	**78**	**0.040**	ug/L	0.321	809	12864	12521	0
[	**Mo**	**98**	**0.372**	ug/L	0.007	1	28	2088	1
	Y	**89**		ug/L			406158	585475	2
	Kr	**83**		ug/L			794	1255	3
[>	**In**	**115**		ug/L			1093664	1080919	0
[	**Ag**	**107**	**~0.140**	ug/L	0.001	0	42	2152	0
[	**Cd**	**111**	**0.727**	ug/L	0.032	4	115	3959	4
[	**Cd**	**114**	**0.575**	ug/L	0.006	0	65	7555	1
[	**Sb**	**121**	**0.052**	ug/L	0.001	2	182	988	1
[	**Sb**	**123**	**0.050**	ug/L	0.004	7	151	742	5
[	**Ba**	**135**	**315.156**	ug/L	4.037	1	15	1500393	1
[	**Ba**	**137**	**318.971**	ug/L	2.159	0	26	2636638	0
[>	**Tb**	**159**		ug/L			1253683	1262444	0
[	**Tl**	**205**	**0.133**	ug/L	0.002	1	128	4830	1
[	**Pb**	**208**	**31.354**	ug/L	0.282	0	347	1442534	0
[	**Bi**	**209**		ug/L			2594753	2482401	0
[	**Th**	**232**	**5.313**	ug/L	0.027	0	1408	242985	0
[	**U**	**238**	**1.098**	ug/L	0.020	1	31	53591	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:10:59
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	925173	0
[	Be	9	0.431	ug/L	0.006	1	23	1437	1
	C	13		ug/L			82469	112499	3
	Cl	37		ug/L			4833777	4721761	1
[>	Sc	45		ug/L			1144296	1242547	2
[	V	51	17.436	ug/L	0.439	2	9450	411863	1
[	V-1	51	17.505	ug/L	0.268	1	48	404189	0
[	Cr	52	11.874	ug/L	0.455	3	27897	258680	2
[	Cr	53	12.151	ug/L	0.365	3	145	26776	3
[	Mn	55	1082.556	ug/L	31.652	2	487	28951335	1
[	Co	59	4.546	ug/L	0.094	2	76	89528	2
[>	Ge	72		ug/L			608948	596517	0
[	Ni	60	13.692	ug/L	0.162	1	28	52780	0
[	Ni	62	14.879	ug/L	0.660	4	64	8259	3
[	Cu	63	10.423	ug/L	0.146	1	101	91440	1
[	Cu	65	10.819	ug/L	0.208	1	39	41802	1
[	Zn	66	153.356	ug/L	3.439	2	991	345984	1
[	Zn	67	165.252	ug/L	6.110	3	141	62420	3
[	Zn	68	167.157	ug/L	1.880	1	706	267115	0
[	As	75	6.125	ug/L	0.071	1	318	13071	0
[	As-1	75	6.248	ug/L	0.134	2	12623	25056	0
[	Se	82	-0.113	ug/L	0.119	104	-10	-37	77
[	Se	78	0.122	ug/L	0.241	197	12864	12671	0
[	Mo	98	0.339	ug/L	0.006	1	28	1923	1
	Y	89		ug/L			406158	494942	1
	Kr	83		ug/L			794	1041	7
[>	In	115		ug/L			1093664	1085703	0
[	Ag	107	0.139	ug/L	0.005	3	42	2146	3
[	Cd	111	1.533	ug/L	0.036	2	115	8261	2
[	Cd	114	1.378	ug/L	0.006	0	65	18095	0
[	Sb	121	0.066	ug/L	0.003	4	182	1207	4
[	Sb	123	0.064	ug/L	0.002	2	151	905	1
[	Ba	135	438.261	ug/L	2.473	0	15	2095721	0
[	Ba	137	430.365	ug/L	4.083	0	26	3573158	0
[>	Tb	159		ug/L			1253683	1269680	1
[	Tl	205	0.141	ug/L	0.004	2	128	5114	1
[	Pb	208	65.133	ug/L	0.646	0	347	3013364	0
[	Bi	209		ug/L			2594753	2508843	0
[	Th	232	3.504	ug/L	0.026	0	1408	161657	0
[	U	238	0.424	ug/L	0.001	0	31	20836	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:15:06
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	940258	2
	Be	9	0.877	ug/L	0.028	3	23	2943	0
	C	13		ug/L			82469	116382	1
	Cl	37		ug/L			4833777	4938150	4
>	Sc	45		ug/L			1144296	1296583	1
	V	51	35.394	ug/L	0.673	1	9450	861408	0
	V-1	51	35.355	ug/L	0.759	2	48	851697	0
	Cr	52	62.467	ug/L	1.077	1	27897	1285545	0
	Cr	53	62.130	ug/L	1.357	2	145	142161	0
	Mn	55	1325.853	ug/L	28.346	2	487	37004486	0
	Co	59	10.899	ug/L	0.288	2	76	223781	0
>	Ge	72		ug/L			608948	581140	3
	Ni	60	61.321	ug/L	1.737	2	28	230091	1
	Ni	62	63.460	ug/L	1.996	3	64	34104	0
	Cu	63	22.902	ug/L	1.043	4	101	195449	2
	Cu	65	23.943	ug/L	1.240	5	39	89998	2
	Zn	66	293.780	ug/L	9.593	3	991	644539	1
	Zn	67	292.864	ug/L	8.309	2	141	107616	0
	Zn	68	309.890	ug/L	10.088	3	706	481562	0
	As	75	15.837	ug/L	0.563	3	318	32424	0
	As-1	75	16.226	ug/L	0.753	4	12623	44127	0
	Se	82	-0.301	ug/L	0.105	34	-10	-81	27
	Se	78	0.298	ug/L	0.591	198	12864	12438	0
	Mo	98	0.513	ug/L	0.032	6	28	2818	2
	Y	89		ug/L			406158	528535	2
	Kr	83		ug/L			794	1243	2
>	In	115		ug/L			1093664	1079913	0
	Ag	107	~0.176	ug/L	0.002	1	42	2691	1
	Cd	111	4.053	ug/L	0.040	0	115	21542	0
	Cd	114	4.022	ug/L	0.036	0	65	52401	0
	Sb	121	0.063	ug/L	0.004	5	182	1162	5
	Sb	123	0.058	ug/L	0.001	1	151	829	1
	Ba	135	475.933	ug/L	3.456	0	15	2263756	0
	Ba	137	469.695	ug/L	5.938	1	26	3878799	0
>	Tb	159		ug/L			1253683	1279194	1
	Tl	205	0.237	ug/L	0.005	2	128	8587	1
	Pb	208	182.371	ug/L	4.042	2	347	8499311	1
	Bi	209		ug/L			2594753	2461397	0
	Th	232	5.528	ug/L	0.059	1	1408	256097	0
	U	238	0.540	ug/L	0.008	1	31	26701	1

ICP-MS Quantitative Analysis - Summary Report

Ag

Sample ID: VR32 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:20:18
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	930980	1
[	Be	9	0.443	ug/L	0.024	5	23	1483	5
	C	13		ug/L			82469	117135	1
	Cl	37		ug/L			4833777	4780410	2
[>	Sc	45		ug/L			1144296	1248512	1
|	V	51	18.670	ug/L	0.126	0	9450	442492	0
|	V-1	51	18.684	ug/L	0.181	0	48	433511	0
|	Cr	52	12.557	ug/L	0.243	1	27897	273169	1
|	Cr	53	12.649	ug/L	0.370	2	145	27995	1
|	Mn	55	1050.565	ug/L	10.199	0	487	28241147	1
[	Co	59	4.867	ug/L	0.042	0	76	96303	0
[>	Ge	72		ug/L			608948	595551	2
|	Ni	60	11.881	ug/L	0.546	4	28	45696	2
|	Ni	62	12.485	ug/L	0.488	3	64	6929	4
|	Cu	63	10.629	ug/L	0.424	3	101	93028	1
|	Cu	65	10.890	ug/L	0.415	3	39	41985	1
|	Zn	66	133.508	ug/L	4.338	3	991	300716	1
|	Zn	67	140.029	ug/L	2.809	2	141	52814	0
|	Zn	68	144.108	ug/L	6.284	4	706	229842	1
|	As	75	12.988	ug/L	0.349	2	318	27315	0
|	As-1	75	13.267	ug/L	0.510	3	12623	39233	0
|	Se	82	-0.040	ug/L	0.069	174	-10	-19	88
|	Se	78	0.113	ug/L	0.634	561	12864	12640	0
[	Mo	98	0.468	ug/L	0.011	2	28	2636	1
	Y	89		ug/L			406158	506595	0
	Kr	83		ug/L			794	1030	4
[>	In	115		ug/L			1093664	1072882	0
|	Ag	107	~0.093	ug/L	0.003	2	42	1436	2
|	Cd	111	1.722	ug/L	0.070	4	115	9157	3
|	Cd	114	1.649	ug/L	0.022	1	65	21375	0
|	Sb	121	0.114	ug/L	0.005	4	182	1935	3
|	Sb	123	0.119	ug/L	0.002	1	151	1537	0
|	Ba	135	301.872	ug/L	4.336	1	15	1426455	1
[	Ba	137	308.555	ug/L	6.128	1	26	2531541	1
[>	Tb	159		ug/L			1253683	1265882	0
|	Tl	205	0.151	ug/L	0.007	4	128	5449	4
|	Pb	208	75.513	ug/L	1.515	2	347	3482972	1
|	Bi	209		ug/L			2594753	2515010	0
|	Th	232	4.757	ug/L	0.116	2	1408	218253	1
[	U	238	0.599	ug/L	0.009	1	31	29308	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:24:25
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	914773	1
	Be	9	0.516	ug/L	0.005	0	23	1695	0
	C	13		ug/L			82469	110315	1
	Cl	37		ug/L			4833777	4707910	2
>	Sc	45		ug/L			1144296	1251794	0
	V	51	22.392	ug/L	0.757	3	9450	530011	2
	V-1	51	22.470	ug/L	0.793	3	48	522696	3
	Cr	52	15.738	ug/L	0.469	2	27897	335593	2
	Cr	53	16.050	ug/L	0.181	1	145	35582	0
	Mn	55	700.698	ug/L	16.476	2	487	18884998	2
	Co	59	5.178	ug/L	0.100	1	76	102735	2
>	Ge	72		ug/L			608948	596075	2
	Ni	60	13.771	ug/L	0.530	3	28	53020	2
	Ni	62	15.404	ug/L	0.357	2	64	8541	1
	Cu	63	11.081	ug/L	0.325	2	101	97084	1
	Cu	65	11.424	ug/L	0.335	2	39	44088	0
	Zn	66	88.046	ug/L	3.648	4	991	198815	2
	Zn	67	96.905	ug/L	2.905	2	141	36622	1
	Zn	68	93.938	ug/L	3.139	3	706	150230	1
	As	75	7.323	ug/L	0.226	3	318	15549	1
	As-1	75	7.433	ug/L	0.347	4	12623	27434	0
	Se	82	-0.101	ug/L	0.063	62	-10	-35	46
	Se	78	0.056	ug/L	0.478	860	12864	12620	0
	Mo	98	0.399	ug/L	0.023	5	28	2255	3
	Y	89		ug/L			406158	553312	2
	Kr	83		ug/L			794	1095	4
>	In	115		ug/L			1093664	1079361	0
	Ag	107	~0.087	ug/L	0.007	8	42	1342	8
	Cd	111	0.741	ug/L	0.013	1	115	4031	1
	Cd	114	0.609	ug/L	0.005	0	65	7985	0
	Sb	121	0.053	ug/L	0.003	5	182	996	4
	Sb	123	0.050	ug/L	0.002	3	151	740	3
	Ba	135	215.972	ug/L	0.879	0	15	1026743	0
	Ba	137	218.583	ug/L	3.201	1	26	1804189	1
>	Tb	159		ug/L			1253683	1256254	1
	Tl	205	0.137	ug/L	0.003	1	128	4933	0
	Pb	208	52.268	ug/L	1.120	2	347	2392495	1
	Bi	209		ug/L			2594753	2507564	0
	Th	232	4.967	ug/L	0.108	2	1408	226061	0
	U	238	0.756	ug/L	0.016	2	31	36744	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:28:34
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	908770 ✓	0
	Be	9	49.177	ug/L	1.201	2	23	158275	1
	C	13		ug/L			82469	85898	1
	Cl	37		ug/L			4833777	4938363	3
>	Sc	45		ug/L			1144296	1134662 ✓	0
	V	51	49.037	ug/L	0.707	1	9450	1041113	2
	V-1	51	49.215	ug/L	0.786	1	48	1037864	2
	Cr	52	49.721	ug/L	0.255	0	27897	901276	0
	Cr	53	50.316	ug/L	0.250	0	145	100805	0
	Mn	55	48.686	ug/L	0.161	0	487	1189889	0
	Co	59	50.569	ug/L	0.676	1	76	908702	1
>	Ge	72		ug/L			608948	588907 ✓	1
	Ni	60	50.476	ug/L	0.238	0	28	192033	1
	Ni	62	48.361	ug/L	1.933	3	64	26358	2
	Cu	63	49.095	ug/L	0.827	1	101	424876	2
	Cu	65	50.236	ug/L	0.427	0	39	191487	0
	Zn	66	49.577	ug/L	0.468	0	991	111074	0
	Zn	67	49.052	ug/L	0.547	1	141	18387	0
	Zn	68	50.639	ug/L	1.861	3	706	80338	2
	As	75	50.444	ug/L	0.461	0	318	104053	0
	As-1	75	50.375	ug/L	0.874	1	12623	113215	0
	Se	82	49.751	ug/L	0.720	1	-10	12142	2
	Se	78	49.498	ug/L	0.911	1	12864	40616	0
	Mo	98	48.917	ug/L	1.352	2	28	269869	2
	Y	89		ug/L			406158	389398	0
	Kr	83		ug/L			794	820	2
>	In	115		ug/L			1093664	1058729 ✓	1
	Ag	107	48.955	ug/L	0.585	1	42	721120	2
	Cd	111	50.691	ug/L	0.297	0	115	262847	0
	Cd	114	50.980	ug/L	0.127	0	65	650353	0
	Sb	121	50.830	ug/L	0.458	0	182	772058	0
	Sb	123	49.902	ug/L	0.385	0	151	575324	1
	Ba	135	50.387	ug/L	0.153	0	15	234968	0
	Ba	137	50.180	ug/L	0.434	0	26	406289	1
>	Tb	159		ug/L			1253683	1236364 ✓	1
	Tl	205	49.196	ug/L	0.123	0	128	1697326	0
	Pb	208	49.540	ug/L	0.592	1	347	2231992	1
	Bi	209		ug/L			2594753	2474648	0
	Th	232	51.496	ug/L	0.499	0	1408	2294088	0
	U	238	51.401	ug/L	0.621	1	31	2455569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 15:35:26
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	876656	1
	Be	9	-0.001	ug/L	0.002	191	23	19	32
	C	13		ug/L			82469	82075	0
	Cl	37		ug/L			4833777	4799670	1
>	Sc	45		ug/L			1144296	1093771	3
	V	51	0.019	ug/L	0.018	97	9450	9409	0
	V-1	51	0.001	ug/L	0.001	52	48	70	17
	Cr	52	0.069	ug/L	0.065	93	27897	27818	0
	Cr	53	0.009	ug/L	0.003	34	145	157	1
	Mn	55	0.006	ug/L	0.002	29	487	599	9
	Co	59	0.000	ug/L	0.000	109	76	80	7
>	Ge	72		ug/L			608948	565743	0
	Ni	60	0.003	ug/L	0.002	71	28	38	21
	Ni	62	0.001	ug/L	0.018	1804	64	60	15
	Cu	63	0.008	ug/L	0.002	21	101	162	9
	Cu	65	0.008	ug/L	0.002	24	39	65	10
	Zn	66	-0.168	ug/L	0.009	5	991	561	3
	Zn	67	-0.108	ug/L	0.040	36	141	93	15
	Zn	68	-0.129	ug/L	0.008	5	706	461	1
	As	75	0.021	ug/L	0.009	42	318	336	4
	As-1	75	0.219	ug/L	0.025	11	12623	12148	0
	Se	82	0.032	ug/L	0.075	231	-10	-1	913
	Se	78	0.743	ug/L	0.064	8	12864	12358	0
	Mo	98	0.004	ug/L	0.001	28	28	49	12
	Y	89		ug/L			406158	376293	2
	Kr	83		ug/L			794	748	3
>	In	115		ug/L			1093664	1026642	0
	Ag	107	-0.000	ug/L	0.000	58	42	34	10
	Cd	111	-0.002	ug/L	0.002	83	115	96	9
	Cd	114	-0.001	ug/L	0.000	23	65	51	4
	Sb	121	0.045	ug/L	0.005	10	182	835	8
	Sb	123	0.043	ug/L	0.004	8	151	628	7
	Ba	135	0.006	ug/L	0.001	15	15	42	10
	Ba	137	0.004	ug/L	0.001	26	26	52	14
>	Tb	159		ug/L			1253683	1167892	0
	Tl	205	0.008	ug/L	0.004	55	128	376	37
	Pb	208	0.000	ug/L	0.001	571	347	330	10
	Bi	209		ug/L			2594753	2451410	0
	Th	232	0.057	ug/L	0.001	2	1408	3711	1
	U	238	0.001	ug/L	0.000	5	31	86	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:41:16
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	899958	0
[	Be	9	-0.002	ug/L	0.003	148	23	17	49
	C	13		ug/L			82469	88433	1
	Cl	37		ug/L			4833777	4711070	1
[>	Sc	45		ug/L			1144296	1134692	2
[	V	51	0.008	ug/L	0.008	98	9450	9543	1
[	V-1	51	0.002	ug/L	0.001	33	48	96	14
[	Cr	52	0.029	ug/L	0.031	107	27897	28164	0
[	Cr	53	0.009	ug/L	0.008	88	145	161	7
[	Mn	55	0.032	ug/L	0.014	43	487	1254	24
[	Co	59	0.002	ug/L	0.001	43	76	103	10
[>	Ge	72		ug/L			608948	572520	0
[	Ni	60	0.004	ug/L	0.002	59	28	41	20
[	Ni	62	0.004	ug/L	0.035	862	64	62	29
[	Cu	63	0.031	ug/L	0.004	12	101	353	9
[	Cu	65	0.027	ug/L	0.002	7	39	137	5
[	Zn	66	-0.068	ug/L	0.017	24	991	785	5
[	Zn	67	-0.012	ug/L	0.012	101	141	129	2
[	Zn	68	-0.049	ug/L	0.020	41	706	589	4
[	As	75	0.023	ug/L	0.017	73	318	344	9
[	As-1	75	0.227	ug/L	0.111	48	12623	12308	1
[	Se	82	0.046	ug/L	0.060	129	-10	1	1039
[	Se	78	0.787	ug/L	0.427	54	12864	12529	1
[	Mo	98	0.001	ug/L	0.001	78	28	31	10
	Y	89		ug/L			406158	377789	1
	Kr	83		ug/L			794	763	3
[>	In	115		ug/L			1093664	1052997	0
[	Ag	107	~0.000	ug/L	0.000	148	42	37	15
[	Cd	111	-0.002	ug/L	0.001	63	115	102	6
[	Cd	114	-0.000	ug/L	0.000	133	65	60	4
[	Sb	121	0.008	ug/L	0.001	16	182	303	6
[	Sb	123	0.006	ug/L	0.003	48	151	218	15
[	Ba	135	0.014	ug/L	0.003	22	15	80	19
[	Ba	137	0.012	ug/L	0.003	24	26	124	19
[>	Tb	159		ug/L			1253683	1188271	0
[	Tl	205	0.005	ug/L	0.002	46	128	285	26
[	Pb	208	0.008	ug/L	0.001	12	347	660	6
[	Bi	209		ug/L			2594753	2463639	0
[	Th	232	0.034	ug/L	0.006	17	1408	2784	9
[	U	238	0.000	ug/L	0.000	79	31	41	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:45:23
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	883627	0
	Be	9	24.551	ug/L	0.023	0	23	76850	0
	C	13		ug/L			82469	86990	1
	Cl	37		ug/L			4833777	4846774	2
>	Sc	45		ug/L			1144296	1125303	2
	V	51	25.100	ug/L	0.930	3	9450	532699	1
	V-1	51	25.032	ug/L	0.786	3	48	523266	0
	Cr	52	25.737	ug/L	1.397	5	27897	475519	2
	Cr	53	25.504	ug/L	0.887	3	145	50717	1
	Mn	55	25.283	ug/L	0.350	1	487	612915	1
	Co	59	25.772	ug/L	1.168	4	76	459012	2
>	Ge	72		ug/L			608948	577142	0
	Ni	60	26.155	ug/L	0.322	1	28	97532	1
	Ni	62	25.458	ug/L	0.612	2	64	13631	1
	Cu	63	26.734	ug/L	0.267	0	101	226750	0
	Cu	65	26.691	ug/L	0.536	2	39	99738	2
	Zn	66	82.471	ug/L	1.344	1	991	180485	2
	Zn	67	76.240	ug/L	1.168	1	141	27938	1
	Zn	68	80.256	ug/L	1.315	1	706	124444	2
	As	75	27.049	ug/L	0.681	2	318	54820	1
	As-1	75	25.836	ug/L	0.184	0	12623	62742	0
	Se	82	79.281	ug/L	1.815	2	-10	18964	1
	Se	78	79.766	ug/L	0.669	0	12864	56699	1
	Mo	98	24.276	ug/L	0.446	1	28	131269	1
	Y	89		ug/L			406158	384734	1
	Kr	83		ug/L			794	809	2
>	In	115		ug/L			1093664	1056027	1
	Ag	107	25.435	ug/L	0.705	2	42	373620	1
	Cd	111	24.895	ug/L	0.303	1	115	128806	0
	Cd	114	25.128	ug/L	0.333	1	65	319743	0
	Sb	121	24.896	ug/L	0.278	1	182	377261	0
	Sb	123	24.890	ug/L	0.580	2	151	286242	1
	Ba	135	25.580	ug/L	0.263	1	15	118983	1
	Ba	137	25.413	ug/L	0.148	0	26	205244	1
>	Tb	159		ug/L			1253683	1197166	0
	Tl	205	26.276	ug/L	0.081	0	128	877876	0
	Pb	208	26.250	ug/L	0.020	0	347	1145388	0
	Bi	209		ug/L			2594753	2508446	0
	Th	232	25.606	ug/L	0.297	1	1408	1105310	1
	U	238	25.683	ug/L	0.218	0	31	1188152	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:49:31
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	916718	0
	Be	9	0.478	ug/L	0.037	7	23	1574	6
	C	13		ug/L			82469	114617	1
	Cl	37		ug/L			4833777	4640620	3
>	Sc	45		ug/L			1144296	1226137	3
	V	51	20.301	ug/L	0.929	4	9450	471240	2
	V-1	51	20.392	ug/L	0.978	4	48	464260	2
	Cr	52	13.479	ug/L	0.345	2	27897	285671	1
	Cr	53	13.837	ug/L	0.505	3	145	30048	2
	Mn	55	860.529	ug/L	23.120	2	487	22706077	1
	Co	59	4.690	ug/L	0.150	3	76	91071	0
>	Ge	72		ug/L			608948	601099	1
	Ni	60	12.369	ug/L	0.533	4	28	48024	2
	Ni	62	13.328	ug/L	0.241	1	64	7461	0
	Cu	63	9.841	ug/L	0.523	5	101	86938	3
	Cu	65	10.035	ug/L	0.161	1	39	39072	1
	Zn	66	60.525	ug/L	1.269	2	991	138175	1
	Zn	67	74.757	ug/L	1.318	1	141	28531	2
	Zn	68	70.118	ug/L	2.712	3	706	113261	1
	As	75	4.554	ug/L	0.213	4	318	9869	2
	As-1	75	4.513	ug/L	0.278	6	12623	21691	0
	Se	82	-0.065	ug/L	0.087	134	-10	-26	84
	Se	78	-0.197	ug/L	0.356	180	12864	12582	1
	Mo	98	0.396	ug/L	0.016	4	28	2254	2
	Y	89		ug/L			406158	516961	0
	Kr	83		ug/L			794	1097	4
>	In	115		ug/L			1093664	1077964	1
	Ag	107	~0.095	ug/L	0.004	3	42	1469	3
	Cd	111	0.573	ug/L	0.021	3	115	3136	4
	Cd	114	0.415	ug/L	0.008	1	65	5451	0
	Sb	121	0.082	ug/L	0.003	3	182	1453	1
	Sb	123	0.085	ug/L	0.009	10	151	1152	7
	Ba	135	241.892	ug/L	6.177	2	15	1148255	1
	Ba	137	239.592	ug/L	4.402	1	26	1974816	0
>	Tb	159		ug/L			1253683	1273472	0
	Tl	205	0.106	ug/L	0.002	1	128	3910	0
	Pb	208	21.642	ug/L	0.366	1	347	1004463	0
	Bi	209		ug/L			2594753	2499345	1
	Th	232	4.402	ug/L	0.064	1	1408	203291	0
	U	238	0.736	ug/L	0.027	3	31	36263	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:53:38
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	920441	1
	Be	9	0.489	ug/L	0.009	1	23	1616	0
	C	13		ug/L			82469	103475	3
	Cl	37		ug/L			4833777	4614911	3
>	Sc	45		ug/L			1144296	1223341	1
	V	51	21.075	ug/L	0.114	0	9450	488167	2
	V-1	51	21.151	ug/L	0.037	0	48	480890	1
	Cr	52	13.910	ug/L	0.134	0	27897	293308	1
	Cr	53	14.219	ug/L	0.431	3	145	30816	1
	Mn	55	289.740	ug/L	6.172	2	487	7630564	0
	Co	59	4.929	ug/L	0.098	1	76	95539	0
>	Ge	72		ug/L			608948	596701	0
	Ni	60	12.341	ug/L	0.118	0	28	47592	0
	Ni	62	13.457	ug/L	0.117	0	64	7480	0
	Cu	63	11.531	ug/L	0.277	2	101	101173	2
	Cu	65	12.039	ug/L	0.133	1	39	46529	1
	Zn	66	42.545	ug/L	0.592	1	991	96730	1
	Zn	67	52.668	ug/L	0.038	0	141	19996	0
	Zn	68	47.658	ug/L	0.239	0	706	76678	0
	As	75	3.138	ug/L	0.041	1	318	6852	1
	As-1	75	3.101	ug/L	0.023	0	12623	18670	0
	Se	82	-0.052	ug/L	0.073	138	-10	-22	78
	Se	78	-0.032	ug/L	0.152	482	12864	12588	0
	Mo	98	0.277	ug/L	0.009	3	28	1579	2
	Y	89		ug/L			406158	527808	1
	Kr	83		ug/L			794	1099	2
>	In	115		ug/L			1093664	1054317	0
	Ag	107	0.125	ug/L	0.003	2	42	1872	2
	Cd	111	0.382	ug/L	0.029	7	115	2081	7
	Cd	114	0.200	ug/L	0.003	1	65	2609	1
	Sb	121	0.041	ug/L	0.002	6	182	793	4
	Sb	123	0.043	ug/L	0.003	6	151	635	4
	Ba	135	148.150	ug/L	0.465	0	15	687974	0
	Ba	137	147.785	ug/L	1.661	1	26	1191543	1
>	Tb	159		ug/L			1253683	1253978	0
	Tl	205	0.091	ug/L	0.002	2	128	3329	2
	Pb	208	8.806	ug/L	0.125	1	347	402668	0
	Bi	209		ug/L			2594753	2478043	1
	Th	232	4.595	ug/L	0.044	0	1408	208893	0
	U	238	0.864	ug/L	0.015	1	31	41901	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 15:57:46
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	933541	2
	Be	9	0.415	ug/L	0.006	1	23	1395	3
	C	13		ug/L			82469	100862	3
	Cl	37		ug/L			4833777	4764082	2
>	Sc	45		ug/L			1144296	1213594	2
	V	51	23.279	ug/L	0.477	2	9450	533728	1
	V-1	51	23.283	ug/L	0.512	2	48	525017	1
	Cr	52	15.257	ug/L	0.173	1	27897	316308	2
	Cr	53	15.331	ug/L	0.067	0	145	32957	1
	Mn	55	276.941	ug/L	3.469	1	487	7236594	2
	Co	59	5.091	ug/L	0.112	2	76	97909	3
>	Ge	72		ug/L			608948	592665	2
	Ni	60	12.916	ug/L	0.366	2	28	49451	0
	Ni	62	13.842	ug/L	0.622	4	64	7635	2
	Cu	63	11.290	ug/L	0.225	1	101	98374	1
	Cu	65	11.471	ug/L	0.326	2	39	44018	0
	Zn	66	39.534	ug/L	0.557	1	991	89325	0
	Zn	67	45.871	ug/L	1.208	2	141	17312	2
	Zn	68	43.382	ug/L	0.647	1	706	69376	1
	As	75	3.471	ug/L	0.014	0	318	7494	1
	As-1	75	3.521	ug/L	0.134	3	12623	19388	0
	Se	82	-0.083	ug/L	0.065	78	-10	-30	50
	Se	78	0.205	ug/L	0.408	199	12864	12634	0
	Mo	98	0.317	ug/L	0.004	1	28	1787	1
	Y	89		ug/L			406158	520504	0
	Kr	83		ug/L			794	1084	2
>	In	115		ug/L			1093664	1069948	1
	Ag	107	0.094	ug/L	0.005	5	42	1438	4
	Cd	111	0.288	ug/L	0.019	6	115	1621	7
	Cd	114	0.127	ug/L	0.002	1	65	1695	1
	Sb	121	0.018	ug/L	0.001	5	182	458	1
	Sb	123	0.016	ug/L	0.002	9	151	333	6
	Ba	135	105.794	ug/L	1.314	1	15	498559	1
	Ba	137	104.961	ug/L	0.564	0	26	858787	0
>	Tb	159		ug/L			1253683	1250465	0
	Tl	205	0.081	ug/L	0.001	1	128	2949	2
	Pb	208	8.493	ug/L	0.112	1	347	387285	0
	Bi	209		ug/L			2594753	2468522	1
	Th	232	5.550	ug/L	0.078	1	1408	251331	0
	U	238	0.798	ug/L	0.006	0	31	38570	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:01:53
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	927709	1
[	**Be**	**9**	**0.390**	ug/L	0.015	3	23	1304	4
	C	**13**		ug/L			82469	112987	1
	Cl	**37**		ug/L			4833777	4764523	3
[>	**Sc**	**45**		ug/L			1144296	1228678	0
[	**V**	**51**	**18.991**	ug/L	0.096	0	9450	442792	0
[	**V-1**	**51**	**19.033**	ug/L	0.145	0	48	434635	0
[	**Cr**	**52**	**20.374**	ug/L	0.122	0	27897	417589	0
[	**Cr**	**53**	**20.507**	ug/L	0.301	1	145	44578	1
[	**Mn**	**55**	**643.559**	ug/L	6.121	0	487	17025020	0
[	**Co**	**59**	**5.496**	ug/L	0.191	3	76	107000	3
[>	**Ge**	**72**		ug/L			608948	595704	1
[	**Ni**	**60**	**14.066**	ug/L	0.448	3	28	54142	2
[	**Ni**	**62**	**14.767**	ug/L	0.486	3	64	8185	2
[	**Cu**	**63**	**14.395**	ug/L	0.352	2	101	126046	1
[	**Cu**	**65**	**14.712**	ug/L	0.401	2	39	56745	1
[	**Zn**	**66**	**142.425**	ug/L	1.962	1	991	320952	0
[	**Zn**	**67**	**143.797**	ug/L	4.301	2	141	54253	2
[	**Zn**	**68**	**151.811**	ug/L	5.794	3	706	242250	2
[	**As**	**75**	**8.182**	ug/L	0.178	2	318	17331	0
[	**As-1**	**75**	**8.241**	ug/L	0.227	2	12623	29062	0
[	**Se**	**82**	**0.010**	ug/L	0.046	478	-10	-7	151
[	**Se**	**78**	**-0.154**	ug/L	0.187	121	12864	12495	0
[	**Mo**	**98**	**0.338**	ug/L	0.011	3	28	1917	4
	Y	**89**		ug/L			406158	519200	0
	Kr	**83**		ug/L			794	1041	1
[>	**In**	**115**		ug/L			1093664	1086133	1
[	**Ag**	**107**	**0.090**	ug/L	0.004	4	42	1398	3
[	**Cd**	**111**	**2.287**	ug/L	0.054	2	115	12271	1
[	**Cd**	**114**	**2.200**	ug/L	0.039	1	65	28845	1
[	**Sb**	**121**	**0.134**	ug/L	0.004	2	182	2272	1
[	**Sb**	**123**	**0.134**	ug/L	0.002	1	151	1738	0
[	**Ba**	**135**	**268.392**	ug/L	1.752	0	15	1283878	0
[	**Ba**	**137**	**274.410**	ug/L	5.533	2	26	2278874	0
[>	**Tb**	**159**		ug/L			1253683	1264925	1
[	**Tl**	**205**	**0.124**	ug/L	0.002	2	128	4497	2
[	**Pb**	**208**	**101.925**	ug/L	1.514	1	347	4697453	0
[	**Bi**	**209**		ug/L			2594753	2501859	0
[	**Th**	**232**	**4.709**	ug/L	0.060	1	1408	215906	0
[	**U**	**238**	**0.494**	ug/L	0.007	1	31	24199	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 16:07:05
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\111912.cal

V Cr Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	906886	1
[	Be	9	0.183	ug/L	0.007	3	23	610	2
	C	13		ug/L			82469	100521	3
	Cl	37		ug/L			4833777	4844027	3
[>	Sc	45		ug/L			1144296	1185910	1
[	V	51	7.359	ug/L	0.190	2	9450	171575	1
[	V-1	51	7.253	ug/L	0.119	1	48	159876	0
[	Cr	52	18.977	ug/L	0.676	3	27897	377284	1
[	Cr	53	18.532	ug/L	0.463	2	145	38891	1
[	Mn	55	531.699	ug/L	8.572	1	487	13575654	1
[	Co	59	4.494	ug/L	0.128	2	76	84458	1
[>	Ge	72		ug/L			608948	586038	0
[	Ni	60	16.468	ug/L	0.154	0	28	62362	0
[	Ni	62	16.722	ug/L	0.418	2	64	9113	2
[	Cu	63	10.668	ug/L	0.131	1	101	91936	1
[	Cu	65	10.842	ug/L	0.121	1	39	41158	1
[	Zn	66	147.498	ug/L	4.269	2	991	326995	2
[	Zn	67	142.459	ug/L	2.771	1	141	52887	1
[	Zn	68	150.863	ug/L	3.439	2	706	236926	2
[	As	75	3.815	ug/L	0.029	0	318	8115	0
[	As-1	75	3.923	ug/L	0.057	1	12623	19977	0
[	Se	82	0.092	ug/L	0.041	44	-10	12	79
[	Se	78	0.208	ug/L	0.188	90	12864	12498	0
[	Mo	98	0.155	ug/L	0.003	2	28	881	2
	Y	89		ug/L			406158	445454	1
	Kr	83		ug/L			794	815	2
[>	In	115		ug/L			1093664	1101014	0
[	Ag	107	0.062	ug/L	0.002	2	42	989	3
[	Cd	111	2.568	ug/L	0.045	1	115	13955	1
[	Cd	114	2.491	ug/L	0.050	1	65	33106	1
[	Sb	121	0.044	ug/L	0.004	7	182	886	5
[	Sb	123	0.042	ug/L	0.001	2	151	655	1
[	Ba	135	188.786	ug/L	0.952	0	15	915480	0
[	Ba	137	187.909	ug/L	1.153	0	26	1582177	1
[>	Tb	159		ug/L			1253683	1239269	1
[	Tl	205	0.131	ug/L	0.002	1	128	4661	0
[	Pb	208	110.543	ug/L	0.922	0	347	4991652	1
[	Bi	209		ug/L			2594753	2531448	0
[	Th	232	1.406	ug/L	0.016	1	1408	64126	1
[	U	238	0.178	ug/L	0.002	1	31	8554	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR32 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:11:12
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	909417	1
[	Be	9	0.832	ug/L	0.016	1	23	2704	3
	C	13		ug/L			82469	148394	1
	Cl	37		ug/L			4833777	5123734	1
[>	Sc	45		ug/L			1144296	1281224	1
[	V	51	31.917	ug/L	0.798	2	9450	768735	2
[	V-1	51	31.727	ug/L	0.429	1	48	755497	2
[	Cr	52	83.023	ug/L	1.094	1	27897	1678197	0
[	Cr	53	81.997	ug/L	1.529	1	145	185402	2
[	Mn	55	2312.041	ug/L	42.127	1	487	63771132	1
[	Co	59	19.372	ug/L	0.581	2	76	393121	3
[>	Ge	72		ug/L			608948	585389	1
[	Ni	60	76.083	ug/L	0.520	0	28	287712	1
[	Ni	62	77.601	ug/L	2.140	2	64	42012	1
[	Cu	63	47.863	ug/L	1.363	2	101	411675	2
[	Cu	65	48.629	ug/L	1.190	2	39	184280	2
[	Zn	66	648.708	ug/L	19.953	3	991	1432946	1
[	Zn	67	636.379	ug/L	15.641	2	141	235496	1
[	Zn	68	686.783	ug/L	19.863	2	706	1074661	1
[	As	75	17.390	ug/L	0.433	2	318	35852	1
[	As-1	75	17.668	ug/L	0.531	3	12623	47345	0
[	Se	82	0.168	ug/L	0.049	29	-10	31	38
[	Se	78	0.147	ug/L	0.346	234	12864	12448	0
[	Mo	98	0.714	ug/L	0.013	1	28	3944	3
	Y	89		ug/L			406158	611038	1
	Kr	83		ug/L			794	1158	2
[>	In	115		ug/L			1093664	1104588	1
[	Ag	107	0.270	ug/L	0.004	1	42	4194	0
[	Cd	111	11.228	ug/L	0.163	1	115	60834	1
[	Cd	114	11.195	ug/L	0.191	1	65	149040	0
[	Sb	121	0.215	ug/L	0.006	2	182	3585	2
[	Sb	123	0.207	ug/L	0.001	0	151	2647	1
[	Ba	135	897.432	ug/L	13.013	1	15	4365768	1
[	Ba	137	886.601	ug/L	10.040	1	26	7488478	0
[>	Tb	159		ug/L			1253683	1258545	0
[	Tl	205	0.614	ug/L	0.011	1	128	21693	1
[	Pb	208	512.663	ug/L	5.144	1	347	23508449	0
[	Bi	209		ug/L			2594753	2430312	0
[	Th	232	6.397	ug/L	0.023	0	1408	291352	0
[	U	238	0.817	ug/L	0.008	0	31	39765	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 16:15:20
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\111912.cal

V Cr Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	917752	0
[	Be	9	0.176	ug/L	0.013	7	23	594	7
	C	13		ug/L			82469	97876	3
	Cl	37		ug/L			4833777	4885750	0
[>	Sc	45		ug/L			1144296	1181392	0
[	V	51	7.557	ug/L	0.026	0	9450	175302	0
[	V-1	51	7.613	ug/L	0.048	0	48	167193	0
[	Cr	52	21.482	ug/L	0.135	0	27897	421792	0
[	Cr	53	21.565	ug/L	0.330	1	145	45069	1
[	Mn	55	360.287	ug/L	1.226	0	487	9164930	0
[	Co	59	4.456	ug/L	0.071	1	76	83432	1
[>	Ge	72		ug/L			608948	594744	2
[	Ni	60	19.347	ug/L	0.412	2	28	74334	1
[	Ni	62	19.641	ug/L	0.820	4	64	10850	3
[	Cu	63	8.924	ug/L	0.214	2	101	78043	1
[	Cu	65	9.167	ug/L	0.275	2	39	35312	2
[	Zn	66	96.045	ug/L	1.968	2	991	216373	0
[	Zn	67	97.557	ug/L	4.953	5	141	36779	3
[	Zn	68	100.375	ug/L	2.857	2	706	160144	1
[	As	75	3.424	ug/L	0.039	1	318	7422	1
[	As-1	75	3.431	ug/L	0.233	6	12623	19272	0
[	Se	82	0.049	ug/L	0.068	137	-10	2	719
[	Se	78	-0.117	ug/L	0.668	572	12864	12492	1
[	Mo	98	0.142	ug/L	0.001	0	28	817	2
	Y	89		ug/L			406158	441118	3
	Kr	83		ug/L			794	856	0
[>	In	115		ug/L			1093664	1084684	1
[	Ag	107	0.059	ug/L	0.002	3	42	935	2
[	Cd	111	1.478	ug/L	0.045	3	115	7961	1
[	Cd	114	1.432	ug/L	0.039	2	65	18775	1
[	Sb	121	0.015	ug/L	0.001	5	182	413	1
[	Sb	123	0.015	ug/L	0.002	12	151	326	5
[	Ba	135	157.830	ug/L	3.522	2	15	753851	0
[	Ba	137	157.037	ug/L	2.737	1	26	1302378	0
[>	Tb	159		ug/L			1253683	1229351	0
[	Tl	205	0.105	ug/L	0.003	2	128	3715	1
[	Pb	208	71.243	ug/L	0.529	0	347	3191486	0
[	Bi	209		ug/L			2594753	2497975	1
[	Th	232	1.291	ug/L	0.011	0	1408	58520	0
[	U	238	0.176	ug/L	0.001	0	31	8373	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:19:27
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	926839	1
[	Be	9	0.861	ug/L	0.029	3	23	2847	2
	C	13		ug/L			82469	140938	1
	Cl	37		ug/L			4833777	4876213	1
[>	Sc	45		ug/L			1144296	1329777	2
[	V	51	35.045	ug/L	0.712	2	9450	875217	3
[	V-1	51	34.540	ug/L	0.824	2	48	853368	1
[	Cr	52	99.953	ug/L	2.027	2	27897	2090226	1
[	Cr	53	97.763	ug/L	5.199	5	145	229208	3
[	Mn	55	1578.929	ug/L	16.272	1	487	45202034	1
[	Co	59	19.543	ug/L	0.517	2	76	411507	2
[>	Ge	72		ug/L			608948	588402	0
[	Ni	60	95.713	ug/L	2.159	2	28	363746	1
[	Ni	62	98.281	ug/L	1.651	1	64	53474	0
[	Cu	63	43.981	ug/L	0.848	1	101	380268	2
[	Cu	65	45.190	ug/L	1.033	2	39	172121	2
[	Zn	66	446.542	ug/L	6.613	1	991	991992	1
[	Zn	67	454.711	ug/L	7.106	1	141	169193	1
[	Zn	68	467.935	ug/L	7.941	1	706	736310	0
[	As	75	16.723	ug/L	0.065	0	318	34674	0
[	As-1	75	17.010	ug/L	0.148	0	12623	46279	0
[	Se	82	0.028	ug/L	0.070	253	-10	-2	574
[	Se	78	0.197	ug/L	0.257	130	12864	12542	0
[	Mo	98	0.706	ug/L	0.020	2	28	3918	2
	Y	89		ug/L			406158	598325	1
	Kr	83		ug/L			794	1244	0
[>	In	115		ug/L			1093664	1116755	1
[	Ag	107	0.273	ug/L	0.009	3	42	4286	3
[	Cd	111	6.746	ug/L	0.125	1	115	36992	0
[	Cd	114	6.577	ug/L	0.060	0	65	88571	2
[	Sb	121	0.093	ug/L	0.002	1	182	1674	0
[	Sb	123	0.092	ug/L	0.005	5	151	1267	3
[	Ba	135	781.757	ug/L	14.859	1	15	3844774	1
[	Ba	137	777.428	ug/L	17.815	2	26	6638076	1
[>	Tb	159		ug/L			1253683	1257809	0
[	Tl	205	0.521	ug/L	0.007	1	128	18417	1
[	Pb	208	356.615	ug/L	3.328	0	347	16343454	0
[	Bi	209		ug/L			2594753	2434150	0
[	Th	232	6.350	ug/L	0.097	1	1408	289049	0
[	U	238	0.840	ug/L	0.019	2	31	40871	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 16:23:36
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	896633 ✓	1
	Be	9	50.153	ug/L	0.433	0	23	159267	1
	C	13		ug/L			82469	82279	2
	Cl	37		ug/L			4833777	4946278	1
>	Sc	45		ug/L			1144296	1135888 ✓	1
	V	51	49.833	ug/L	1.009	2	9450	1058871	2
	V-1	51	49.761	ug/L	1.395	2	48	1050297	2
	Cr	52	50.402	ug/L	0.612	1	27897	914351	2
	Cr	53	50.155	ug/L	0.915	1	145	100579	1
	Mn	55	49.946	ug/L	1.569	3	487	1221584	1
	Co	59	49.336	ug/L	0.314	0	76	887426	1
>	Ge	72		ug/L			608948	578598 ✓	0
	Ni	60	50.303	ug/L	1.102	2	28	188005	1
	Ni	62	49.159	ug/L	0.755	1	64	26332	1
	Cu	63	50.489	ug/L	0.582	1	101	429236	0
	Cu	65	51.021	ug/L	0.752	1	39	191083	0
	Zn	66	50.085	ug/L	0.656	1	991	110253	1
	Zn	67	50.809	ug/L	0.290	0	141	18710	0
	Zn	68	50.783	ug/L	1.166	2	706	79178	1
	As	75	50.601	ug/L	0.482	0	318	102556	0
	As-1	75	50.646	ug/L	0.272	0	12623	111784	0
	Se	82	50.332	ug/L	1.203	2	-10	12066	1
	Se	78	50.492	ug/L	0.574	1	12864	40466	0
	Mo	98	50.092	ug/L	1.293	2	28	271506	2
	Y	89		ug/L			406158	384730	0
	Kr	83		ug/L			794	789	4
>	In	115		ug/L			1093664	1039243 ✓	0
	Ag	107	49.196	ug/L	1.312	2	42	711321	2
	Cd	111	50.586	ug/L	1.112	2	115	257493	2
	Cd	114	51.618	ug/L	0.442	0	65	646382	1
	Sb	121	51.087	ug/L	0.012	0	182	761722	0
	Sb	123	50.523	ug/L	0.891	1	151	571766	1
	Ba	135	50.427	ug/L	0.708	1	15	230836	1
	Ba	137	50.637	ug/L	0.255	0	26	402449	0
>	Tb	159		ug/L			1253683	1195386 ✓	0
	Tl	205	49.988	ug/L	1.110	2	128	1667347	1
	Pb	208	50.184	ug/L	0.806	1	347	2185955	0
	Bi	209		ug/L			2594753	2399371	1
	Th	232	52.689	ug/L	1.151	2	1408	2269382	1
	U	238	53.276	ug/L	0.580	1	31	2460937	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 16:30:29
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	858012	0
[	Be	9	0.003	ug/L	0.008	252	23	31	73
	C	13		ug/L			82469	81067	2
	Cl	37		ug/L			4833777	4759199	0
[>	Sc	45		ug/L			1144296	1116609	1
[	V	51	0.019	ug/L	0.017	89	9450	9602	2
[	V-1	51	0.009	ug/L	0.011	122	48	231	96
[	Cr	52	0.049	ug/L	0.041	82	27897	28063	1
[	Cr	53	0.016	ug/L	0.015	93	145	174	16
[	Mn	55	0.165	ug/L	0.193	117	487	4400	103
[	Co	59	0.007	ug/L	0.008	115	76	191	69
[>	Ge	72		ug/L			608948	572798	1
[	Ni	60	0.015	ug/L	0.016	108	28	81	71
[	Ni	62	-0.008	ug/L	0.011	141	64	56	9
[	Cu	63	0.012	ug/L	0.013	102	101	198	52
[	Cu	65	0.012	ug/L	0.011	90	39	82	48
[	Zn	66	-0.226	ug/L	0.057	25	991	442	26
[	Zn	67	-0.198	ug/L	0.048	24	141	61	27
[	Zn	68	-0.201	ug/L	0.058	28	706	356	23
[	As	75	0.027	ug/L	0.007	26	318	352	3
[	As-1	75	0.141	ug/L	0.164	116	12623	12145	1
[	Se	82	0.043	ug/L	0.054	125	-10	0	2179
[	Se	78	0.494	ug/L	0.561	113	12864	12371	1
[	Mo	98	0.008	ug/L	0.006	77	28	68	45
	Y	89		ug/L			406158	372856	1
	Kr	83		ug/L			794	781	5
[>	In	115		ug/L			1093664	1038259	1
[	Ag	107	0.003	ug/L	0.005	136	42	89	76
[	Cd	111	0.002	ug/L	0.005	212	115	121	20
[	Cd	114	0.004	ug/L	0.006	166	65	107	70
[	Sb	121	0.044	ug/L	0.010	23	182	822	18
[	Sb	123	0.042	ug/L	0.007	16	151	621	12
[	Ba	135	0.052	ug/L	0.044	85	15	250	81
[	Ba	137	0.049	ug/L	0.042	85	26	418	81
[>	Tb	159		ug/L			1253683	1155718	0
[	Tl	205	0.010	ug/L	0.008	78	128	435	56
[	Pb	208	0.022	ug/L	0.022	101	347	1242	75
[	Bi	209		ug/L			2594753	2449475	0
[	Th	232	0.070	ug/L	0.010	13	1408	4199	9
[	U	238	0.006	ug/L	0.006	102	31	290	92

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 16:35:37
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	907032	0
	Be	9	0.088	ug/L	0.004	4	23	304	4
	C	13		ug/L			82469	96554	2
	Cl	37		ug/L			4833777	4761619	1
>	Sc	45		ug/L			1144296	1154512	1
	V	51	3.626	ug/L	0.020	0	9450	87150	0
	V-1	51	3.621	ug/L	0.008	0	48	77734	1
	Cr	52	4.066	ug/L	0.182	4	27897	100807	1
	Cr	53	4.045	ug/L	0.090	2	145	8380	0
	Mn	55	194.435	ug/L	1.738	0	487	4833767	1
	Co	59	1.320	ug/L	0.041	3	76	24198	2
>	Ge	72		ug/L			608948	584256	0
	Ni	60	4.303	ug/L	0.053	1	28	16265	0
	Ni	62	4.373	ug/L	0.091	2	64	2421	2
	Cu	63	5.695	ug/L	0.178	3	101	48968	2
	Cu	65	5.817	ug/L	0.119	2	39	22031	2
	Zn	66	79.666	ug/L	1.013	1	991	176519	1
	Zn	67	76.200	ug/L	1.499	1	141	28264	1
	Zn	68	80.617	ug/L	2.238	2	706	126519	2
	As	75	2.703	ug/L	0.049	1	318	5821	1
	As-1	75	2.758	ug/L	0.102	3	12623	17598	0
	Se	82	0.085	ug/L	0.070	82	-10	10	158
	Se	78	0.090	ug/L	0.276	305	12864	12393	0
	Mo	98	0.061	ug/L	0.006	10	28	363	10
	Y	89		ug/L			406158	406907	2
	Kr	83		ug/L			794	795	1
>	In	115		ug/L			1093664	1061058	1
	Ag	107	0.045	ug/L	0.002	3	42	711	2
	Cd	111	1.563	ug/L	0.005	0	115	8229	1
	Cd	114	1.555	ug/L	0.016	1	65	19945	1
	Sb	121	0.133	ug/L	0.004	3	182	2202	3
	Sb	123	0.132	ug/L	0.006	4	151	1672	4
	Ba	135	53.935	ug/L	0.189	0	15	252064	0
	Ba	137	53.190	ug/L	0.462	0	26	431591	0
>	Tb	159		ug/L			1253683	1196951	1
	Tl	205	0.074	ug/L	0.005	6	128	2608	5
	Pb	208	86.029	ug/L	2.084	2	347	3751681	1
	Bi	209		ug/L			2594753	2504865	0
	Th	232	0.751	ug/L	0.017	2	1408	33706	1
	U	238	0.143	ug/L	0.002	1	31	6659	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:39:45
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	912729	2
[	**Be**	**9**	**0.426**	ug/L	0.012	2	23	1401	1
	C	**13**		ug/L			82469	142917	2
	Cl	**37**		ug/L			4833777	4764708	3
[>	**Sc**	**45**		ug/L			1144296	1212662	1
|	**V**	**51**	**17.155**	ug/L	0.657	3	9450	395588	2
|	**V-1**	**51**	**17.183**	ug/L	0.652	3	48	387133	2
|	**Cr**	**52**	**19.793**	ug/L	0.310	1	27897	401189	0
|	**Cr**	**53**	**19.869**	ug/L	0.316	1	145	42630	0
|	**Mn**	**55**	**940.101**	ug/L	37.599	3	487	24537435	2
[	**Co**	**59**	**6.250**	ug/L	0.076	1	76	120086	0
[>	**Ge**	**72**		ug/L			608948	584747	1
|	**Ni**	**60**	**21.496**	ug/L	0.268	1	28	81207	0
|	**Ni**	**62**	**22.225**	ug/L	0.536	2	64	12063	1
|	**Cu**	**63**	**27.782**	ug/L	0.776	2	101	238693	1
|	**Cu**	**65**	**27.950**	ug/L	0.231	0	39	105811	1
|	**Zn**	**66**	**392.428**	ug/L	19.360	4	991	866153	3
|	**Zn**	**67**	**364.336**	ug/L	7.173	1	141	134774	3
|	**Zn**	**68**	**387.587**	ug/L	10.824	2	706	606117	1
|	**As**	**75**	**13.336**	ug/L	0.155	1	318	27541	1
|	**As-1**	**75**	**13.595**	ug/L	0.230	1	12623	39189	0
|	**Se**	**82**	**0.180**	ug/L	0.048	26	-10	34	35
|	**Se**	**78**	**0.228**	ug/L	0.415	182	12864	12480	0
[	**Mo**	**98**	**0.289**	ug/L	0.001	0	28	1610	1
	Y	**89**		ug/L			406158	502934	0
	Kr	**83**		ug/L			794	993	4
[>	**In**	**115**		ug/L			1093664	1102252	0
|	**Ag**	**107**	**0.206**	ug/L	0.005	2	42	3197	2
|	**Cd**	**111**	**7.287**	ug/L	0.025	0	115	39440	0
|	**Cd**	**114**	**7.186**	ug/L	0.067	0	65	95490	0
|	**Sb**	**121**	**0.597**	ug/L	0.011	1	182	9629	1
|	**Sb**	**123**	**0.634**	ug/L	0.037	5	151	7766	6
|	**Ba**	**135**	**260.604**	ug/L	1.719	0	15	1265153	0
[	**Ba**	**137**	**269.176**	ug/L	1.858	0	26	2268873	0
[>	**Tb**	**159**		ug/L			1253683	1229205	0
|	**Tl**	**205**	**0.315**	ug/L	0.005	1	128	10925	1
|	**Pb**	**208**	**430.296**	ug/L	2.824	0	347	19272430	0
|	**Bi**	**209**		ug/L			2594753	2487903	0
|	**Th**	**232**	**3.373**	ug/L	0.017	0	1408	150706	0
[	**U**	**238**	**0.704**	ug/L	0.004	0	31	33449	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:43:52
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	901647	1
[	Be	9	0.430	ug/L	0.015	3	23	1396	3
	C	13		ug/L			82469	147091	1
	Cl	37		ug/L			4833777	4728124	4
[>	Sc	45		ug/L			1144296	1221855	1
[	V	51	16.168	ug/L	0.423	2	9450	376291	1
[	V-1	51	16.081	ug/L	0.253	1	48	365131	0
[	Cr	52	16.760	ug/L	0.334	1	27897	346823	1
[	Cr	53	16.463	ug/L	0.435	2	145	35622	3
[	Mn	55	959.090	ug/L	28.621	2	487	25222549	1
[	Co	59	6.086	ug/L	0.117	1	76	117808	0
[>	Ge	72		ug/L			608948	598192	2
[	Ni	60	16.645	ug/L	0.645	3	28	64299	1
[	Ni	62	17.309	ug/L	0.842	4	64	9620	2
[	Cu	63	27.312	ug/L	0.392	1	101	240050	1
[	Cu	65	27.545	ug/L	1.307	4	39	106616	3
[	Zn	66	385.799	ug/L	8.120	2	991	871198	0
[	Zn	67	366.468	ug/L	6.275	1	141	138629	1
[	Zn	68	388.211	ug/L	7.801	2	706	621015	0
[	As	75	13.532	ug/L	0.530	3	318	28566	1
[	As-1	75	13.730	ug/L	0.647	4	12623	40348	0
[	Se	82	0.247	ug/L	0.077	31	-10	51	38
[	Se	78	0.047	ug/L	0.426	898	12864	12661	0
[	Mo	98	0.293	ug/L	0.014	4	28	1669	2
	Y	89		ug/L			406158	512146	1
	Kr	83		ug/L			794	997	3
[>	In	115		ug/L			1093664	1105284	1
[	Ag	107	0.209	ug/L	0.008	3	42	3254	3
[	Cd	111	7.399	ug/L	0.027	0	115	40151	1
[	Cd	114	7.261	ug/L	0.103	1	65	96754	0
[	Sb	121	0.657	ug/L	0.011	1	182	10596	0
[	Sb	123	0.658	ug/L	0.002	0	151	8071	1
[	Ba	135	265.254	ug/L	2.399	0	15	1291212	0
[	Ba	137	273.795	ug/L	2.435	0	26	2314069	0
[>	Tb	159		ug/L			1253683	1230631	1
[	Tl	205	0.314	ug/L	0.004	1	128	10918	0
[	Pb	208	429.773	ug/L	5.829	1	347	19268946	0
[	Bi	209		ug/L			2594753	2505647	0
[	Th	232	3.467	ug/L	0.060	1	1408	154990	0
[	U	238	0.732	ug/L	0.014	1	31	34856	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:47:59
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	908490	1
[	Be	9	23.719	ug/L	0.269	1	23	76329	0
	C	13		ug/L			82469	135321	2
	Cl	37		ug/L			4833777	5004130	2
[>	Sc	45		ug/L			1144296	1209326	0
[	V	51	40.521	ug/L	0.902	2	9450	918514	1
[	V-1	51	40.417	ug/L	0.796	1	48	908303	1
[	Cr	52	40.403	ug/L	0.686	1	27897	786050	1
[	Cr	53	40.057	ug/L	0.987	2	145	85558	2
[	Mn	55	984.577	ug/L	14.908	1	487	25637871	1
[	Co	59	29.086	ug/L	0.596	2	76	557082	2
[>	Ge	72		ug/L			608948	584402	0
[	Ni	60	42.567	ug/L	0.827	1	28	160703	1
[	Ni	62	42.537	ug/L	0.339	0	64	23023	0
[	Cu	63	51.068	ug/L	1.088	2	101	438522	2
[	Cu	65	52.627	ug/L	1.234	2	39	199089	2
[	Zn	66	482.031	ug/L	5.737	1	991	1063498	1
[	Zn	67	452.672	ug/L	8.194	1	141	167293	1
[	Zn	68	471.483	ug/L	2.188	0	706	736918	0
[	As	75	40.254	ug/L	0.471	1	318	82469	1
[	As-1	75	39.279	ug/L	0.158	0	12623	90285	0
[	Se	82	76.170	ug/L	1.355	1	-10	18451	1
[	Se	78	76.295	ug/L	0.069	0	12864	55451	0
[	Mo	98	21.191	ug/L	0.505	2	28	116035	2
	Y	89		ug/L			406158	521232	0
	Kr	83		ug/L			794	1012	0
[>	In	115		ug/L			1093664	1111092	0
[	Ag	107	19.626 ✓	ug/L	0.393	2	42	303419	2
[	Cd	111	30.405	ug/L	0.496	1	115	165500	1
[	Cd	114	29.875	ug/L	0.272	0	65	400014	1
[	Sb	121	2.272	ug/L	0.029	1	182	36392	1
[	Sb	123	2.293	ug/L	0.014	0	151	27888	0
[	Ba	135	289.793	ug/L	4.781	1	15	1418090	1
[	Ba	137	298.816	ug/L	3.493	1	26	2538985	1
[>	Tb	159		ug/L			1253683	1239499	0
[	Tl	205	23.794	ug/L	0.046	0	128	823101	0
[	Pb	208	463.306	ug/L	2.566	0	347	20924633	0
[	Bi	209		ug/L			2594753	2527207	0
[	Th	232	25.580	ug/L	0.210	0	1408	1143206	0
[	U	238	24.450	ug/L	0.366	1	31	1171109	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:52:07
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	932994	1
	Be	9	0.426	ug/L	0.021	5	23	1431	4
	C	13		ug/L			82469	122101	1
	Cl	37		ug/L			4833777	4924513	0
>	Sc	45		ug/L			1144296	1236607	3
	V	51	17.948	ug/L	0.805	4	9450	421302	0
	V-1	51	17.889	ug/L	0.729	4	48	410737	0
	Cr	52	15.373	ug/L	0.777	5	27897	324191	1
	Cr	53	15.192	ug/L	0.517	3	145	33254	0
	Mn	55	857.749	ug/L	10.279	1	487	22832315	2
	Co	59	5.178	ug/L	0.174	3	76	101397	0
>	Ge	72		ug/L			608948	600915	2
	Ni	60	12.937	ug/L	0.217	1	28	50232	0
	Ni	62	13.752	ug/L	0.475	3	64	7695	3
	Cu	63	14.896	ug/L	0.485	3	101	131543	1
	Cu	65	14.919	ug/L	0.244	1	39	58045	0
	Zn	66	245.703	ug/L	9.514	3	991	557622	2
	Zn	67	242.480	ug/L	2.142	0	141	92199	1
	Zn	68	254.886	ug/L	8.353	3	706	409780	1
	As	75	8.251	ug/L	0.300	3	318	17623	1
	As-1	75	8.367	ug/L	0.442	5	12623	29566	1
	Se	82	0.027	ug/L	0.036	130	-10	-3	275
	Se	78	0.036	ug/L	0.509	1397	12864	12712	0
	Mo	98	0.360	ug/L	0.007	2	28	2051	0
	Y	89		ug/L			406158	518288	2
	Kr	83		ug/L			794	1035	2
>	In	115		ug/L			1093664	1098430	1
	Ag	107	0.135	ug/L	0.007	5	42	2109	3
	Cd	111	3.818	ug/L	0.092	2	115	20639	0
	Cd	114	3.690	ug/L	0.134	3	65	48878	1
	Sb	121	0.181	ug/L	0.005	2	182	3032	2
	Sb	123	0.179	ug/L	0.002	1	151	2296	0
	Ba	135	310.806	ug/L	8.485	2	15	1503161	0
	Ba	137	315.168	ug/L	6.816	2	26	2646671	0
>	Tb	159		ug/L			1253683	1259705	1
	Tl	205	0.215	ug/L	0.006	2	128	7693	0
	Pb	208	209.897	ug/L	3.270	1	347	9632863	0
	Bi	209		ug/L			2594753	2521348	0
	Th	232	4.321	ug/L	0.082	1	1408	197419	0
	U	238	0.764	ug/L	0.018	2	31	37235	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 16:56:14
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	915797	1
[	Be	9	0.563	ug/L	0.006	1	23	1849	3
	C	13		ug/L			82469	128083	0
	Cl	37		ug/L			4833777	4749391	3
[>	Sc	45		ug/L			1144296	1288119	0
[	V	51	29.904	ug/L	0.492	1	9450	724803	0
[	V-1	51	30.038	ug/L	0.293	0	48	719063	0
[	Cr	52	29.733	ug/L	0.607	2	27897	624424	1
[	Cr	53	30.186	ug/L	0.653	2	145	68724	2
[	Mn	55	836.643	ug/L	3.382	0	487	23204198	0
[	Co	59	10.340	ug/L	0.429	4	76	210969	3
[>	Ge	72		ug/L			608948	597913	1
[	Ni	60	23.038	ug/L	0.435	1	28	88990	1
[	Ni	62	24.384	ug/L	0.496	2	64	13528	0
[	Cu	63	26.947	ug/L	0.636	2	101	236784	2
[	Cu	65	27.861	ug/L	0.244	0	39	107846	0
[	Zn	66	306.814	ug/L	6.278	2	991	692823	0
[	Zn	67	294.064	ug/L	3.842	1	141	111228	0
[	Zn	68	304.387	ug/L	8.934	2	706	486915	2
[	As	75	15.227	ug/L	0.075	0	318	32111	1
[	As-1	75	15.468	ug/L	0.129	0	12623	43888	0
[	Se	82	0.082	ug/L	0.102	124	-10	10	243
[	Se	78	0.115	ug/L	0.259	224	12864	12697	0
[	Mo	98	0.534	ug/L	0.004	0	28	3018	1
	Y	89		ug/L			406158	588706	0
	Kr	83		ug/L			794	1182	3
[>	In	115		ug/L			1093664	1093972	1
[	Ag	107	0.243	ug/L	0.008	3	42	3740	2
[	Cd	111	5.966	ug/L	0.096	1	115	32066	0
[	Cd	114	5.858	ug/L	0.068	1	65	77274	1
[	Sb	121	0.318	ug/L	0.010	3	182	5176	2
[	Sb	123	0.316	ug/L	0.005	1	151	3919	0
[	Ba	135	280.742	ug/L	7.180	2	15	1352458	1
[	Ba	137	291.309	ug/L	6.244	2	26	2436696	1
[>	Tb	159		ug/L			1253683	1249603	0
[	Tl	205	0.329	ug/L	0.010	2	128	11596	3
[	Pb	208	236.732	ug/L	0.931	0	347	10779081	0
[	Bi	209		ug/L			2594753	2476216	0
[	Th	232	5.857	ug/L	0.104	1	1408	265001	1
[	U	238	0.768	ug/L	0.002	0	31	37139	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:00:22
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	902440	2
	Be	9	0.538	ug/L	0.005	0	23	1741	1
	C	13		ug/L			82469	122365	0
	Cl	37		ug/L			4833777	4862789	2
>	Sc	45		ug/L			1144296	1257814	2
	V	51	30.103	ug/L	1.191	3	9450	712158	2
	V-1	51	29.966	ug/L	1.183	3	48	700275	3
	Cr	52	29.203	ug/L	1.135	3	27897	599221	2
	Cr	53	28.749	ug/L	0.218	0	145	63911	1
	Mn	55	969.209	ug/L	40.449	4	487	26235646	2
	Co	59	10.995	ug/L	0.174	1	76	219036	1
>	Ge	72		ug/L			608948	579197	0
	Ni	60	25.938	ug/L	0.169	0	28	97065	1
	Ni	62	26.637	ug/L	0.751	2	64	14311	2
	Cu	63	29.889	ug/L	0.495	1	101	254420	2
	Cu	65	30.712	ug/L	0.487	1	39	115156	1
	Zn	66	327.255	ug/L	4.335	1	991	715900	1
	Zn	67	314.332	ug/L	4.242	1	141	115169	0
	Zn	68	325.785	ug/L	4.560	1	706	504860	1
	As	75	18.671	ug/L	0.229	1	318	38073	1
	As-1	75	19.191	ug/L	0.216	1	12623	49860	1
	Se	82	0.052	ug/L	0.068	131	-10	2	586
	Se	78	0.775	ug/L	0.066	8	12864	12670	0
	Mo	98	0.478	ug/L	0.002	0	28	2621	0
	Y	89		ug/L			406158	548155	0
	Kr	83		ug/L			794	1159	5
>	In	115		ug/L			1093664	1071369	1
	Ag	107	0.245	ug/L	0.007	2	42	3698	2
	Cd	111	6.584	ug/L	0.077	1	115	34647	0
	Cd	114	6.668	ug/L	0.058	0	65	86133	0
	Sb	121	0.219	ug/L	0.004	1	182	3543	0
	Sb	123	0.222	ug/L	0.002	1	151	2743	1
	Ba	135	298.080	ug/L	1.542	0	15	1406567	0
	Ba	137	310.692	ug/L	2.401	0	26	2545402	0
>	Tb	159		ug/L			1253683	1234511	1
	Tl	205	0.306	ug/L	0.001	0	128	10664	1
	Pb	208	277.549	ug/L	2.329	0	347	12483988	0
	Bi	209		ug/L			2594753	2445710	0
	Th	232	6.385	ug/L	0.019	0	1408	285228	1
	U	238	0.632	ug/L	0.004	0	31	30161	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:04:29
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	929353	0
	Be	9	0.492	ug/L	0.008	1	23	1642	1
	C	13		ug/L			82469	119076	1
	Cl	37		ug/L			4833777	4851187	3
>	Sc	45		ug/L			1144296	1282088	2
	V	51	28.252	ug/L	0.258	0	9450	682085	1
	V-1	51	28.128	ug/L	0.490	1	48	670025	1
	Cr	52	28.347	ug/L	0.478	1	27897	593871	1
	Cr	53	27.930	ug/L	1.208	4	145	63250	1
	Mn	55	834.379	ug/L	34.177	4	487	23016792	1
	Co	59	10.294	ug/L	0.359	3	76	208941	1
>	Ge	72		ug/L			608948	599633	1
	Ni	60	23.815	ug/L	0.886	3	28	92235	2
	Ni	62	24.585	ug/L	0.338	1	64	13680	2
	Cu	63	26.094	ug/L	0.421	1	101	229931	0
	Cu	65	26.434	ug/L	0.799	3	39	102592	1
	Zn	66	146.313	ug/L	4.002	2	991	331845	2
	Zn	67	152.386	ug/L	3.946	2	141	57868	2
	Zn	68	156.126	ug/L	2.565	1	706	250810	0
	As	75	11.023	ug/L	0.209	1	318	23394	0
	As-1	75	11.141	ug/L	0.309	2	12623	35173	0
	Se	82	0.007	ug/L	0.045	596	-10	-8	134
	Se	78	-0.049	ug/L	0.367	750	12864	12638	1
	Mo	98	0.433	ug/L	0.028	6	28	2463	6
	Y	89		ug/L			406158	556540	2
	Kr	83		ug/L			794	1164	4
>	In	115		ug/L			1093664	1063757	1
	Ag	107	0.159	ug/L	0.006	3	42	2391	2
	Cd	111	2.123	ug/L	0.058	2	115	11165	1
	Cd	114	2.067	ug/L	0.010	0	65	26551	0
	Sb	121	0.100	ug/L	0.003	3	182	1705	1
	Sb	123	0.103	ug/L	0.002	2	151	1340	2
	Ba	135	283.722	ug/L	3.010	1	15	1329329	1
	Ba	137	290.932	ug/L	2.306	0	26	2366721	1
>	Tb	159		ug/L			1253683	1247741	0
	Tl	205	0.154	ug/L	0.002	1	128	5481	1
	Pb	208	103.866	ug/L	0.366	0	347	4722458	0
	Bi	209		ug/L			2594753	2451903	0
	Th	232	6.324	ug/L	0.070	1	1408	285581	1
	U	238	0.614	ug/L	0.010	1	31	29630	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:09:41
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	914812	1
	Be	9	0.591	ug/L	0.026	4	23	1938	2
	C	13		ug/L			82469	96879	1
	Cl	37		ug/L			4833777	4769947	4
>	Sc	45		ug/L			1144296	1273891	1
	V	51	32.161	ug/L	0.539	1	9450	770090	0
	V-1	51	32.237	ug/L	0.456	1	48	763162	1
	Cr	52	26.787	ug/L	0.778	2	27897	559368	1
	Cr	53	27.084	ug/L	0.470	1	145	60993	1
	Mn	55	491.279	ug/L	1.677	0	487	13475109	0
	Co	59	9.015	ug/L	0.092	1	76	181940	1
>	Ge	72		ug/L			608948	588382	1
	Ni	60	22.468	ug/L	0.456	2	28	85403	0
	Ni	62	24.610	ug/L	0.805	3	64	13436	3
	Cu	63	23.177	ug/L	0.115	0	101	200419	0
	Cu	65	23.179	ug/L	0.077	0	39	88303	1
	Zn	66	57.445	ug/L	1.888	3	991	128420	2
	Zn	67	68.514	ug/L	1.023	1	141	25610	2
	Zn	68	64.109	ug/L	0.802	1	706	101483	2
	As	75	5.555	ug/L	0.064	1	318	11722	0
	As-1	75	5.576	ug/L	0.193	3	12623	23366	0
	Se	82	-0.214	ug/L	0.015	7	-10	-62	6
	Se	78	0.147	ug/L	0.432	293	12864	12512	0
	Mo	98	0.340	ug/L	0.009	2	28	1900	2
	Y	89		ug/L			406158	622722	0
	Kr	83		ug/L			794	1347	2
>	In	115		ug/L			1093664	1053749	1
	Ag	107	0.120	ug/L	0.011	8	42	1793	7
	Cd	111	0.354	ug/L	0.030	8	115	1937	9
	Cd	114	0.152	ug/L	0.001	0	65	1988	1
	Sb	121	0.014	ug/L	0.001	5	182	389	3
	Sb	123	0.013	ug/L	0.001	5	151	290	3
	Ba	135	188.063	ug/L	1.866	0	15	872759	0
	Ba	137	187.058	ug/L	3.882	2	26	1507068	0
>	Tb	159		ug/L			1253683	1234478	0
	Tl	205	0.127	ug/L	0.001	0	128	4498	1
	Pb	208	13.965	ug/L	0.062	0	347	628496	0
	Bi	209		ug/L			2594753	2408955	0
	Th	232	6.801	ug/L	0.055	0	1408	303713	0
	U	238	1.034	ug/L	0.022	2	31	49365	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:13:48
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	895666	0
	Be	**9**	**0.408**	ug/L	0.017	4	23	1316	4
	C	**13**		ug/L			82469	92965	1
	Cl	**37**		ug/L			4833777	4747541	1
>	**Sc**	**45**		ug/L			1144296	1228702	1
	V	**51**	**27.936**	ug/L	0.607	2	9450	646532	1
	V-1	**51**	**27.798**	ug/L	0.439	1	48	634722	0
	Cr	**52**	**25.263**	ug/L	0.882	3	27897	510539	2
	Cr	**53**	**24.817**	ug/L	0.394	1	145	53914	0
	Mn	**55**	**337.329**	ug/L	4.892	1	487	8924494	1
	Co	**59**	**7.291**	ug/L	0.167	2	76	141933	1
>	**Ge**	**72**		ug/L			608948	582061	0
	Ni	**60**	**18.452**	ug/L	0.328	1	28	69399	1
	Ni	**62**	**19.711**	ug/L	0.680	3	64	10658	3
	Cu	**63**	**16.074**	ug/L	0.109	0	101	137542	0
	Cu	**65**	**16.355**	ug/L	0.300	1	39	61646	1
	Zn	**66**	**39.834**	ug/L	1.214	3	991	88398	2
	Zn	**67**	**47.820**	ug/L	0.840	1	141	17722	1
	Zn	**68**	**43.647**	ug/L	0.726	1	706	68560	1
	As	**75**	**4.597**	ug/L	0.068	1	318	9649	1
	As-1	**75**	**4.753**	ug/L	0.074	1	12623	21487	0
	Se	**82**	**0.045**	ug/L	0.032	71	-10	1	730
	Se	**78**	**0.724**	ug/L	0.031	4	12864	12704	0
	Mo	**98**	**0.424**	ug/L	0.018	4	28	2341	4
	Y	**89**		ug/L			406158	553782	0
	Kr	**83**		ug/L			794	1143	1
>	**In**	**115**		ug/L			1093664	1054432	0
	Ag	**107**	**0.072**	ug/L	0.010	13	42	1093	12
	Cd	**111**	**0.240**	ug/L	0.038	15	115	1351	14
	Cd	**114**	**0.105**	ug/L	0.005	5	65	1401	5
	Sb	**121**	**0.017**	ug/L	0.001	7	182	426	4
	Sb	**123**	**0.015**	ug/L	0.002	11	151	319	6
	Ba	**135**	**136.035**	ug/L	1.442	1	15	631737	0
	Ba	**137**	**134.971**	ug/L	2.049	1	26	1088310	1
>	**Tb**	**159**		ug/L			1253683	1233378	0
	Tl	**205**	**0.104**	ug/L	0.001	0	128	3705	1
	Pb	**208**	**9.245**	ug/L	0.157	1	347	415790	1
	Bi	**209**		ug/L			2594753	2430194	0
	Th	**232**	**5.625**	ug/L	0.031	0	1408	251207	0
	U	**238**	**0.814**	ug/L	0.005	0	31	38828	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 17:17:57
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	873440	0
	Be	9	50.537	ug/L	0.276	0	23	156349	1
	C	13		ug/L			82469	84949	1
	Cl	37		ug/L			4833777	4829379	2
>	Sc	45		ug/L			1144296	1123203	1
	V	51	50.632	ug/L	0.404	0	9450	1063661	1
	V-1	51	50.220	ug/L	0.281	0	48	1048220	1
	Cr	52	51.526	ug/L	0.877	1	27897	923409	1
	Cr	53	50.128	ug/L	0.482	0	145	99407	1
	Mn	55	49.269	ug/L	0.351	0	487	1191892	1
	Co	59	49.552	ug/L	0.379	0	76	881360	1
>	Ge	72		ug/L			608948	581048	0
	Ni	60	50.241	ug/L	0.995	1	28	188562	1
	Ni	62	49.550	ug/L	0.237	0	64	26655	0
	Cu	63	49.774	ug/L	0.777	1	101	424934	1
	Cu	65	50.821	ug/L	0.406	0	39	191148	1
	Zn	66	49.917	ug/L	0.217	0	991	110346	0
	Zn	67	50.103	ug/L	1.631	3	141	18527	2
	Zn	68	50.458	ug/L	1.167	2	706	79004	1
	As	75	50.156	ug/L	0.561	1	318	102085	0
	As-1	75	50.151	ug/L	0.635	1	12623	111272	0
	Se	82	50.530	ug/L	0.721	1	-10	12165	0
	Se	78	50.752	ug/L	1.217	2	12864	40780	0
	Mo	98	49.787	ug/L	0.703	1	28	271001	0
	Y	89		ug/L			406158	385589	1
	Kr	83		ug/L			794	920	4
>	In	115		ug/L			1093664	1040685	1
	Ag	107	49.306	ug/L	1.011	2	42	713956	3
	Cd	111	50.742	ug/L	0.680	1	115	258604	0
	Cd	114	51.126	ug/L	1.171	2	65	640972	0
	Sb	121	50.498	ug/L	0.659	1	182	753908	0
	Sb	123	50.347	ug/L	0.958	1	151	570461	0
	Ba	135	50.310	ug/L	0.225	0	15	230612	1
	Ba	137	49.697	ug/L	0.670	1	26	395481	0
>	Tb	159		ug/L			1253683	1198210	1
	Tl	205	48.899	ug/L	0.403	0	128	1634961	0
	Pb	208	49.751	ug/L	0.455	0	347	2172262	0
	Bi	209		ug/L			2594753	2413503	0
	Th	232	52.696	ug/L	1.090	2	1408	2274910	1
	U	238	53.386	ug/L	0.745	1	31	2471682	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 17:24:50
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	864178	1
	Be	9	0.000	ug/L	0.002	2083	23	22	21
	C	13		ug/L			82469	81696	1
	Cl	37		ug/L			4833777	4785776	1
>	Sc	45		ug/L			1144296	1092652	1
	V	51	0.007	ug/L	0.001	20	9450	9164	1
	V-1	51	0.003	ug/L	0.003	120	48	103	66
	Cr	52	0.022	ug/L	0.014	62	27897	27011	2
	Cr	53	0.008	ug/L	0.003	30	145	154	1
	Mn	55	0.015	ug/L	0.016	105	487	817	44
	Co	59	0.002	ug/L	0.003	125	76	112	43
>	Ge	72		ug/L			608948	568261	0
	Ni	60	0.001	ug/L	0.002	246	28	29	24
	Ni	62	-0.016	ug/L	0.024	150	64	51	24
	Cu	63	0.007	ug/L	0.002	36	101	150	13
	Cu	65	0.004	ug/L	0.002	42	39	52	13
	Zn	66	-0.266	ug/L	0.012	4	991	354	7
	Zn	67	-0.214	ug/L	0.013	6	141	55	9
	Zn	68	-0.250	ug/L	0.008	3	706	279	5
	As	75	0.058	ug/L	0.010	16	318	412	5
	As-1	75	0.187	ug/L	0.026	14	12623	12141	0
	Se	82	0.052	ug/L	0.011	20	-10	2	89
	Se	78	0.648	ug/L	0.120	18	12864	12361	0
	Mo	98	0.004	ug/L	0.001	29	28	48	14
	Y	89		ug/L			406158	365998	3
	Kr	83		ug/L			794	840	2
>	In	115		ug/L			1093664	1026708	1
	Ag	107	0.001	ug/L	0.002	194	42	57	59
	Cd	111	-0.002	ug/L	0.005	275	115	99	24
	Cd	114	-0.000	ug/L	0.002	732	65	59	34
	Sb	121	0.041	ug/L	0.002	5	182	772	3
	Sb	123	0.039	ug/L	0.002	6	151	582	5
	Ba	135	0.008	ug/L	0.007	92	15	50	67
	Ba	137	0.007	ug/L	0.008	105	26	83	74
>	Tb	159		ug/L			1253683	1140266	1
	Tl	205	0.009	ug/L	0.003	34	128	410	25
	Pb	208	0.001	ug/L	0.003	445	347	348	40
	Bi	209		ug/L			2594753	2430203	0
	Th	232	0.057	ug/L	0.001	2	1408	3630	0
	U	238	0.003	ug/L	0.002	84	31	157	70

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 19, 2012 17:34:26
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	882415	1
	Be	9	0.015	ug/L	0.002	14	23	69	10
	C	13		ug/L			82469	84902	1
	Cl	37		ug/L			4833777	4625317	1
>	Sc	45		ug/L			1144296	1134176	1
	V	51	0.968	ug/L	0.008	0	9450	29730	1
	V-1	51	0.972	ug/L	0.009	0	48	20529	2
	Cr	52	1.044	ug/L	0.039	3	27897	45975	1
	Cr	53	1.055	ug/L	0.034	3	145	2252	1
	Mn	55	44.545	ug/L	0.969	2	487	1088109	1
	Co	59	0.370	ug/L	0.007	1	76	6712	0
>	Ge	72		ug/L			608948	582662	1
	Ni	60	0.989	ug/L	0.034	3	28	3747	2
	Ni	62	0.957	ug/L	0.058	6	64	576	4
	Cu	63	1.078	ug/L	0.015	1	101	9328	2
	Cu	65	1.109	ug/L	0.024	2	39	4218	2
	Zn	66	19.567	ug/L	0.598	3	991	43939	1
	Zn	67	18.265	ug/L	0.486	2	141	6858	1
	Zn	68	19.352	ug/L	0.682	3	706	30794	1
	As	75	0.705	ug/L	0.008	1	318	1740	1
	As-1	75	0.671	ug/L	0.097	14	12623	13408	0
	Se	82	0.037	ug/L	0.082	221	-10	0	2165
	Se	78	-0.037	ug/L	0.375	1015	12864	12286	0
	Mo	98	0.023	ug/L	0.004	17	28	153	12
	Y	89		ug/L			406158	384078	1
	Kr	83		ug/L			794	835	5
>	In	115		ug/L			1093664	1054105	1
	Ag	107	0.017	ug/L	0.001	5	42	287	4
	Cd	111	0.410	ug/L	0.003	0	115	2230	1
	Cd	114	0.412	ug/L	0.010	2	65	5290	1
	Sb	121	0.018	ug/L	0.003	17	182	447	11
	Sb	123	0.016	ug/L	0.002	14	151	334	9
	Ba	135	9.068	ug/L	0.107	1	15	42113	0
	Ba	137	8.867	ug/L	0.086	0	26	71498	0
>	Tb	159		ug/L			1253683	1187092	0
	Tl	205	0.021	ug/L	0.002	11	128	802	10
	Pb	208	20.568	ug/L	0.139	0	347	889921	0
	Bi	209		ug/L			2594753	2513663	2
	Th	232	0.194	ug/L	0.002	0	1408	9626	1
	U	238	0.020	ug/L	0.000	0	31	951	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 17:38:33
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	888886	2
	Be	**9**	**0.092**	ug/L	0.006	6	23	312	4
	C	**13**		ug/L			82469	91632	1
	Cl	**37**		ug/L			4833777	4624975	0
>	**Sc**	**45**		ug/L			1144296	1143656	1
	V	**51**	**4.625**	ug/L	0.038	0	9450	107529	1
	V-1	**51**	**4.632**	ug/L	0.010	0	48	98484	1
	Cr	**52**	**4.956**	ug/L	0.160	3	27897	115665	3
	Cr	**53**	**4.975**	ug/L	0.068	1	145	10177	1
	Mn	**55**	**218.652**	ug/L	0.830	0	487	5384721	1
	Co	**59**	**1.669**	ug/L	0.020	1	76	30295	1
>	**Ge**	**72**		ug/L			608948	587070✓	0
	Ni	**60**	**4.352**	ug/L	0.012	0	28	16530	0
	Ni	**62**	**4.476**	ug/L	0.146	3	64	2489	3
	Cu	**63**	**4.923**	ug/L	0.168	3	101	42552	3
	Cu	**65**	**5.203**	ug/L	0.112	2	39	19806	2
	Zn	**66**	**91.310**	ug/L	1.871	2	991	203143	1
	Zn	**67**	**83.843**	ug/L	2.037	2	141	31237	2
	Zn	**68**	**91.449**	ug/L	0.848	0	706	144136	1
	As	**75**	**3.126**	ug/L	0.072	2	318	6716	1
	As-1	**75**	**3.106**	ug/L	0.077	2	12623	18380	1
	Se	**82**	**0.111**	ug/L	0.062	55	-10	17	87
	Se	**78**	**-0.089**	ug/L	0.297	334	12864	12352	1
	Mo	**98**	**0.119**	ug/L	0.004	3	28	684	2
	Y	**89**		ug/L			406158	403768	0
	Kr	**83**		ug/L			794	866	3
>	**In**	**115**		ug/L			1093664	1077497	0
	Ag	**107**	**0.078**	ug/L	0.002	2	42	1211	2
	Cd	**111**	**1.928**	ug/L	0.043	2	115	10283	1
	Cd	**114**	**1.905**	ug/L	0.035	1	65	24795	1
	Sb	**121**	**0.055**	ug/L	0.001	2	182	1024	2
	Sb	**123**	**0.052**	ug/L	0.002	4	151	763	3
	Ba	**135**	**41.301**	ug/L	0.801	1	15	196002	1
	Ba	**137**	**41.123**	ug/L	0.729	1	26	338850	1
>	**Tb**	**159**		ug/L			1253683	1192401✓	1
	Tl	**205**	**0.088**	ug/L	0.003	2	128	3046	3
	Pb	**208**	**99.742**	ug/L	0.834	0	347	4333756	1
	Bi	**209**		ug/L			2594753	2482084	1
	Th	**232**	**0.934**	ug/L	0.011	1	1408	41443	0
	U	**238**	**0.093**	ug/L	0.002	2	31	4312	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 17:42:41
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	904251	1
	Be	9	0.098	ug/L	0.003	2	23	335	3
	C	13		ug/L			82469	91405	1
	Cl	37		ug/L			4833777	4702344	1
>	Sc	45		ug/L			1144296	1148494	3
	V	51	4.662	ug/L	0.246	5	9450	108660	1
	V-1	51	4.664	ug/L	0.246	5	48	99477	2
	Cr	52	5.366	ug/L	0.149	2	27897	123391	1
	Cr	53	5.365	ug/L	0.124	2	145	11006	1
	Mn	55	220.487	ug/L	5.686	2	487	5450734	2
	Co	59	1.761	ug/L	0.057	3	76	32078	0
>	Ge	72		ug/L			608948	593024 ✓	1
	Ni	60	4.719	ug/L	0.052	1	28	18105	2
	Ni	62	4.864	ug/L	0.140	2	64	2726	2
	Cu	63	4.994	ug/L	0.031	0	101	43599	0
	Cu	65	5.148	ug/L	0.186	3	39	19796	3
	Zn	66	92.932	ug/L	2.645	2	991	208789	1
	Zn	67	84.878	ug/L	2.249	2	141	31934	1
	Zn	68	92.216	ug/L	0.435	0	706	146809	1
	As	75	3.214	ug/L	0.085	2	318	6965	1
	As-1	75	3.200	ug/L	0.185	5	12623	18752	0
	Se	82	0.036	ug/L	0.057	157	-10	0	1430
	Se	78	-0.134	ug/L	0.383	285	12864	12449	0
	Mo	98	0.074	ug/L	0.008	10	28	438	10
	Y	89		ug/L			406158	410016	1
	Kr	83		ug/L			794	893	3
>	In	115		ug/L			1093664	1069260	1
	Ag	107	0.080	ug/L	0.001	1	42	1229	1
	Cd	111	1.918	ug/L	0.007	0	115	10152	1
	Cd	114	1.949	ug/L	0.011	0	65	25173	0
	Sb	121	0.051	ug/L	0.001	2	182	953	1
	Sb	123	0.048	ug/L	0.003	6	151	709	4
	Ba	135	43.118	ug/L	0.533	1	15	203070	1
	Ba	137	42.635	ug/L	0.290	0	26	348629	0
>	Tb	159		ug/L			1253683	1200148 ✓	1
	Tl	205	0.088	ug/L	0.002	2	128	3056	1
	Pb	208	101.608	ug/L	1.430	1	347	4443097	0
	Bi	209		ug/L			2594753	2517858	0
	Th	232	1.427	ug/L	0.014	0	1408	63007	0
	U	238	0.141	ug/L	0.002	1	31	6552	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 17:46:48
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	893153	0
[	**Be**	**9**	**5.287**	ug/L	0.100	1	23	16746	1
	C	**13**		ug/L			82469	92145	1
	Cl	**37**		ug/L			4833777	4744096	3
[>	**Sc**	**45**		ug/L			1144296	1151678	2
|	**V**	**51**	**10.274**	ug/L	0.219	2	9450	228848	1
|	**V-1**	**51**	**10.157**	ug/L	0.317	3	48	217316	0
|	**Cr**	**52**	**10.365**	ug/L	0.101	0	27897	212936	2
|	**Cr**	**53**	**9.970**	ug/L	0.567	5	145	20374	3
|	**Mn**	**55**	**223.187**	ug/L	6.213	2	487	5533530	2
[	**Co**	**59**	**6.842**	ug/L	0.272	3	76	124769	1
[>	**Ge**	**72**		ug/L			608948	582461 ✓	0
|	**Ni**	**60**	**10.129**	ug/L	0.045	0	28	38132	0
|	**Ni**	**62**	**10.074**	ug/L	0.484	4	64	5482	5
|	**Cu**	**63**	**10.479**	ug/L	0.399	3	101	89770	4
|	**Cu**	**65**	**10.719**	ug/L	0.220	2	39	40442	2
|	**Zn**	**66**	**112.719**	ug/L	2.213	1	991	248605	2
|	**Zn**	**67**	**103.804**	ug/L	1.222	1	141	38341	1
|	**Zn**	**68**	**110.869**	ug/L	0.525	0	706	173230	1
|	**As**	**75**	**9.021**	ug/L	0.173	1	318	18656	2
|	**As-1**	**75**	**8.816**	ug/L	0.081	0	12623	29561	1
|	**Se**	**82**	**16.919**	ug/L	0.324	1	-10	4077	2
|	**Se**	**78**	**17.078**	ug/L	0.102	0	12864	21922	0
[	**Mo**	**98**	**4.531**	ug/L	0.118	2	28	24754	3
	Y	**89**		ug/L			406158	408320	0
	Kr	**83**		ug/L			794	884	3
[>	**In**	**115**		ug/L			1093664	1076177	1
|	**Ag**	**107**	**4.703**	ug/L	0.054	1	42	70451	1
|	**Cd**	**111**	**7.207**	ug/L	0.019	0	115	38085	1
|	**Cd**	**114**	**7.104**	ug/L	0.072	1	65	92165	0
|	**Sb**	**121**	**0.504**	ug/L	0.011	2	182	7963	2
|	**Sb**	**123**	**0.493**	ug/L	0.005	0	151	5928	1
|	**Ba**	**135**	**47.530**	ug/L	0.815	1	15	225264	0
[	**Ba**	**137**	**47.353**	ug/L	0.544	1	26	389678	0
[>	**Tb**	**159**		ug/L			1253683	1193700 ✓	0
|	**Tl**	**205**	**5.251**	ug/L	0.035	0	128	175030	0
|	**Pb**	**208**	**107.404**	ug/L	0.311	0	347	4671805	0
|	**Bi**	**209**		ug/L			2594753	2483395	1
|	**Th**	**232**	**5.635**	ug/L	0.061	1	1408	243570	1
[	**U**	**238**	**5.379**	ug/L	0.056	1	31	248156	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:50:55
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	891164	2
	Be	9	0.595	ug/L	0.025	4	23	1898	1
	C	13		ug/L			82469	120897	1
	Cl	37		ug/L			4833777	4814902	3
>	Sc	45		ug/L			1144296	1294677	1
	V	51	28.265	ug/L	1.182	4	9450	689004	3
	V-1	51	28.219	ug/L	0.999	3	48	678796	2
	Cr	52	52.490	ug/L	1.035	1	27897	1083786	1
	Cr	53	52.151	ug/L	0.353	0	145	119203	0
	Mn	55	1082.792	ug/L	17.464	1	487	30181134	1
	Co	59	8.732	ug/L	0.216	2	76	179079	1
>	Ge	72		ug/L			608948	578128	1
	Ni	60	37.551	ug/L	0.988	2	28	140229	1
	Ni	62	38.758	ug/L	0.845	2	64	20755	1
	Cu	63	27.118	ug/L	0.716	2	101	230404	2
	Cu	65	26.815	ug/L	0.797	2	39	100345	1
	Zn	66	281.959	ug/L	5.045	1	991	615770	1
	Zn	67	277.794	ug/L	2.238	0	141	101608	0
	Zn	68	281.640	ug/L	3.885	1	706	435696	0
	As	75	14.988	ug/L	0.196	1	318	30563	0
	As-1	75	15.357	ug/L	0.306	1	12623	42215	0
	Se	82	-0.120	ug/L	0.047	39	-10	-38	29
	Se	78	0.557	ug/L	0.406	72	12864	12523	0
	Mo	98	0.405	ug/L	0.017	4	28	2221	2
	Y	89		ug/L			406158	534328	0
	Kr	83		ug/L			794	1275	0
>	In	115		ug/L			1093664	1084456	1
	Ag	107	0.261	ug/L	0.012	4	42	3971	3
	Cd	111	5.432	ug/L	0.098	1	115	28952	0
	Cd	114	5.369	ug/L	0.101	1	65	70203	0
	Sb	121	0.118	ug/L	0.005	3	182	2010	2
	Sb	123	0.116	ug/L	0.006	4	151	1521	3
	Ba	135	381.151	ug/L	7.782	2	15	1820278	1
	Ba	137	392.153	ug/L	5.151	1	26	3251799	0
>	Tb	159		ug/L			1253683	1223013	0
	Tl	205	0.296	ug/L	0.008	2	128	10210	2
	Pb	208	307.689	ug/L	4.501	1	347	13710728	0
	Bi	209		ug/L			2594753	2437993	0
	Th	232	4.665	ug/L	0.097	2	1408	206827	1
	U	238	1.134	ug/L	0.005	0	31	53601	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:55:03
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	903119	1
[	Be	9	0.438	ug/L	0.008	1	23	1424	3
	C	13		ug/L			82469	116924	0
	Cl	37		ug/L			4833777	4833208	2
[>	Sc	45		ug/L			1144296	1214926	1
[	V	51	18.285	ug/L	0.687	3	9450	421777	2
[	V-1	51	18.349	ug/L	0.634	3	48	414187	1
[	Cr	52	13.492	ug/L	0.439	3	27897	283363	1
[	Cr	53	13.745	ug/L	0.264	1	145	29592	0
[	Mn	55	529.483	ug/L	17.714	3	487	13847089	2
[	Co	59	5.801	ug/L	0.136	2	76	111660	1
[>	Ge	72		ug/L			608948	588382	2
[	Ni	60	14.813	ug/L	0.579	3	28	56294	2
[	Ni	62	15.582	ug/L	0.281	1	64	8529	2
[	Cu	63	17.469	ug/L	0.470	2	101	151035	0
[	Cu	65	18.192	ug/L	0.537	2	39	69286	1
[	Zn	66	194.533	ug/L	3.082	1	991	432643	1
[	Zn	67	182.149	ug/L	7.877	4	141	67818	2
[	Zn	68	192.522	ug/L	4.546	2	706	303267	0
[	As	75	12.347	ug/L	0.274	2	318	25674	0
[	As-1	75	12.558	ug/L	0.382	3	12623	37349	0
[	Se	82	0.027	ug/L	0.102	384	-10	-3	791
[	Se	78	0.181	ug/L	0.362	200	12864	12530	1
[	Mo	98	0.245	ug/L	0.002	0	28	1379	2
	Y	89		ug/L			406158	521271	2
	Kr	83		ug/L			794	1142	4
[>	In	115		ug/L			1093664	1072923	0
[	Ag	107	-0.143	ug/L	0.001	0	42	2178	0
[	Cd	111	3.644	ug/L	0.039	1	115	19252	0
[	Cd	114	3.602	ug/L	0.042	1	65	46623	1
[	Sb	121	0.142	ug/L	0.002	1	182	2358	1
[	Sb	123	0.140	ug/L	0.005	3	151	1783	3
[	Ba	135	163.628	ug/L	0.565	0	15	773257	0
[	Ba	137	161.643	ug/L	1.684	1	26	1326283	1
[>	Tb	159		ug/L			1253683	1234847	0
[	Tl	205	0.171	ug/L	0.002	1	128	6012	0
[	Pb	208	130.603	ug/L	1.302	0	347	5876303	0
[	Bi	209		ug/L			2594753	2464788	1
[	Th	232	4.858	ug/L	0.034	0	1408	217405	0
[	U	238	0.793	ug/L	0.010	1	31	37887	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 17:59:10
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	890785	1
[	Be	9	0.508	ug/L	0.010	2	23	1625	0
	C	13		ug/L			82469	125168	1
	Cl	37		ug/L			4833777	4745491	4
[>	Sc	45		ug/L			1144296	1261798	0
[	V	51	33.387	ug/L	0.406	1	9450	791505	0
[	V-1	51	33.391	ug/L	0.430	1	48	783004	0
[	Cr	52	22.463	ug/L	0.373	1	27897	469656	1
[	Cr	53	22.562	ug/L	0.347	1	145	50352	1
[	Mn	55	521.687	ug/L	9.501	1	487	14173866	2
[	Co	59	7.582	ug/L	0.135	1	76	151580	1
[>	Ge	72		ug/L			608948	576196	1
[	Ni	60	16.737	ug/L	0.411	2	28	62306	1
[	Ni	62	18.748	ug/L	0.513	2	64	10038	2
[	Cu	63	23.964	ug/L	0.746	3	101	202887	1
[	Cu	65	24.085	ug/L	0.611	2	39	89833	1
[	Zn	66	199.832	ug/L	2.081	1	991	435212	0
[	Zn	67	193.043	ug/L	9.013	4	141	70390	3
[	Zn	68	200.310	ug/L	2.443	1	706	309040	0
[	As	75	9.679	ug/L	0.099	1	318	19778	0
[	As-1	75	9.876	ug/L	0.201	2	12623	31319	0
[	Se	82	0.052	ug/L	0.062	120	-10	2	530
[	Se	78	0.446	ug/L	0.376	84	12864	12419	0
[	Mo	98	0.347	ug/L	0.010	2	28	1902	3
	Y	89		ug/L			406158	567714	0
	Kr	83		ug/L			794	1151	3
[>	In	115		ug/L			1093664	1056704	1
[	Ag	107	0.182	ug/L	0.005	2	42	2709	3
[	Cd	111	3.596	ug/L	0.008	0	115	18717	1
[	Cd	114	3.559	ug/L	0.051	1	65	45365	0
[	Sb	121	0.156	ug/L	0.009	5	182	2544	3
[	Sb	123	0.158	ug/L	0.002	1	151	1958	0
[	Ba	135	164.115	ug/L	1.201	0	15	763766	1
[	Ba	137	165.914	ug/L	0.901	0	26	1340696	1
[>	Tb	159		ug/L			1253683	1220669	0
[	Tl	205	0.211	ug/L	0.003	1	128	7328	1
[	Pb	208	144.496	ug/L	0.922	0	347	6427070	0
[	Bi	209		ug/L			2594753	2438716	0
[	Th	232	6.301	ug/L	0.013	0	1408	278350	0
[	U	238	0.775	ug/L	0.004	0	31	36568	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:03:17
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	896396	2
	Be	9	0.471	ug/L	0.008	1	23	1516	1
	C	13		ug/L			82469	110371	2
	Cl	37		ug/L			4833777	4679567	2
>	Sc	45		ug/L			1144296	1276654	1
	V	51	43.781	ug/L	0.397	0	9450	1046775	1
	V-1	51	43.695	ug/L	0.536	1	48	1036538	0
	Cr	52	28.671	ug/L	0.427	1	27897	597875	1
	Cr	53	28.496	ug/L	0.655	2	145	64286	0
	Mn	55	574.462	ug/L	8.930	1	487	15788143	0
	Co	59	9.526	ug/L	0.242	2	76	192628	2
>	Ge	72		ug/L			608948	583525	1
	Ni	60	17.697	ug/L	0.118	0	28	66733	2
	Ni	62	20.036	ug/L	0.355	1	64	10858	0
	Cu	63	36.603	ug/L	0.705	1	101	313793	0
	Cu	65	38.071	ug/L	1.889	4	39	143730	3
	Zn	66	359.327	ug/L	6.481	1	991	791686	0
	Zn	67	336.675	ug/L	9.111	2	141	124239	1
	Zn	68	358.782	ug/L	12.794	3	706	559899	2
	As	75	19.905	ug/L	0.282	1	318	40866	0
	As-1	75	20.361	ug/L	0.420	2	12623	52547	0
	Se	82	0.085	ug/L	0.013	14	-10	10	26
	Se	78	0.502	ug/L	0.545	108	12864	12607	0
	Mo	98	0.275	ug/L	0.012	4	28	1531	2
	Y	89		ug/L			406158	555848	1
	Kr	83		ug/L			794	1186	2
>	In	115		ug/L			1093664	1103177 ✓	1
	Ag	107	0.220	ug/L	0.012	5	42	3412	5
	Cd	111	8.906	ug/L	0.210	2	115	48205	0
	Cd	114	8.877	ug/L	0.281	3	65	118019	1
	Sb	121	0.585	ug/L	0.010	1	182	9448	1
	Sb	123	0.583	ug/L	0.013	2	151	7150	1
	Ba	135	121.210	ug/L	1.861	1	15	588861	0
	Ba	137	120.341	ug/L	1.811	1	26	1015083	0
>	Tb	159		ug/L			1253683	1232452	1
	Tl	205	0.386	ug/L	0.005	1	128	13407	0
	Pb	208	384.557	ug/L	4.574	1	347	17267873	0
	Bi	209		ug/L			2594753	2451808	0
	Th	232	6.017	ug/L	0.053	0	1408	268430	0
	U	238	0.630	ug/L	0.010	1	31	30035	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:08:29
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	889612	0
	Be	**9**	**0.520**	ug/L	0.019	3	23	1659	3
	C	**13**		ug/L			82469	139592	0
	Cl	**37**		ug/L			4833777	4757676	3
>	**Sc**	**45**		ug/L			1144296	1236858	1
	V	**51**	**27.941**	ug/L	0.444	1	9450	650883	0
	V-1	**51**	**27.978**	ug/L	0.592	2	48	642991	0
	Cr	**52**	**28.130**	ug/L	0.362	1	27897	568895	1
	Cr	**53**	**28.256**	ug/L	0.712	2	145	61761	1
	Mn	**55**	**785.695**	ug/L	16.206	2	487	20926399	3
	Co	**59**	**7.966**	ug/L	0.222	2	76	156052	1
>	**Ge**	**72**		ug/L			608948	572866	1
	Ni	**60**	**20.277**	ug/L	0.331	1	28	75068	3
	Ni	**62**	**21.905**	ug/L	0.460	2	64	11649	0
	Cu	**63**	**27.124**	ug/L	0.287	1	101	228340	1
	Cu	**65**	**27.876**	ug/L	0.206	0	39	103382	0
	Zn	**66**	**340.308**	ug/L	5.711	1	991	736176	0
	Zn	**67**	**313.651**	ug/L	3.506	1	141	113667	1
	Zn	**68**	**331.745**	ug/L	3.299	0	706	508468	1
	As	**75**	**11.838**	ug/L	0.306	2	318	23980	1
	As-1	**75**	**12.109**	ug/L	0.437	3	12623	35490	0
	Se	**82**	**0.125**	ug/L	0.057	45	-10	20	65
	Se	**78**	**0.553**	ug/L	0.505	91	12864	12406	0
	Mo	**98**	**0.339**	ug/L	0.020	5	28	1843	4
	Y	**89**		ug/L			406158	560577	1
	Kr	**83**		ug/L			794	1118	0
>	**In**	**115**		ug/L			1093664	1066915	0
	Ag	**107**	**0.175**	ug/L	0.002	1	42	2643	1
	Cd	**111**	**5.718**	ug/L	0.106	1	115	29974	1
	Cd	**114**	**5.594**	ug/L	0.036	0	65	71969	0
	Sb	**121**	**0.359**	ug/L	0.003	0	182	5677	0
	Sb	**123**	**0.360**	ug/L	0.006	1	151	4327	1
	Ba	**135**	**217.181**	ug/L	1.936	0	15	1020532	0
	Ba	**137**	**215.254**	ug/L	3.707	1	26	1756099	0
>	**Tb**	**159**		ug/L			1253683	1223436	1
	Tl	**205**	**0.277**	ug/L	0.008	2	128	9577	1
	Pb	**208**	**234.180**	ug/L	3.918	1	347	10437910	0
	Bi	**209**		ug/L			2594753	2438571	1
	Th	**232**	**5.860**	ug/L	0.118	2	1408	259534	0
	U	**238**	**0.815**	ug/L	0.018	2	31	38558	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR33 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:12:36
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	894730	1
[	Be	9	0.622	ug/L	0.007	1	23	1993	0
	C	13		ug/L			82469	116777	2
	Cl	37		ug/L			4833777	4787698	2
[>	Sc	45		ug/L			1144296	1218079	1
[	V	51	26.732	ug/L	0.901	3	9450	613531	1
[	V-1	51	26.696	ug/L	0.818	3	48	604094	1
[	Cr	52	21.566	ug/L	0.314	1	27897	436396	0
[	Cr	53	21.484	ug/L	0.054	0	145	46294	1
[	Mn	55	828.272	ug/L	7.593	0	487	21723318	2
[	Co	59	9.234	ug/L	0.275	2	76	178133	1
[>	Ge	72		ug/L			608948	576552	0
[	Ni	60	22.065	ug/L	0.429	1	28	82201	2
[	Ni	62	23.173	ug/L	0.357	1	64	12401	1
[	Cu	63	23.828	ug/L	0.204	0	101	201913	0
[	Cu	65	24.412	ug/L	0.307	1	39	91127	1
[	Zn	66	190.455	ug/L	1.118	0	991	415132	1
[	Zn	67	186.306	ug/L	0.863	0	141	68006	0
[	Zn	68	190.185	ug/L	2.104	1	706	293648	0
[	As	75	11.640	ug/L	0.140	1	318	23739	0
[	As-1	75	11.884	ug/L	0.222	1	12623	35283	0
[	Se	82	-0.106	ug/L	0.093	87	-10	-35	63
[	Se	78	0.425	ug/L	0.298	70	12864	12416	0
[	Mo	98	0.426	ug/L	0.002	0	28	2326	1
	Y	89		ug/L			406158	576893	0
	Kr	83		ug/L			794	1266	4
[>	In	115		ug/L			1093664	1036269	2
[	Ag	107	0.192	ug/L	0.012	6	42	2805	4
[	Cd	111	2.924	ug/L	0.030	1	115	14942	1
[	Cd	114	2.769	ug/L	0.069	2	65	34624	0
[	Sb	121	0.176	ug/L	0.007	3	182	2794	1
[	Sb	123	0.171	ug/L	0.004	2	151	2075	0
[	Ba	135	185.335	ug/L	2.856	1	15	845746	0
[	Ba	137	184.872	ug/L	5.651	3	26	1464447	1
[>	Tb	159		ug/L			1253683	1217638	0
[	Tl	205	0.208	ug/L	0.000	0	128	7176	0
[	Pb	208	109.705	ug/L	0.259	0	347	4867516	0
[	Bi	209		ug/L			2594753	2418033	1
[	Th	232	7.016	ug/L	0.031	0	1408	309036	0
[	U	238	1.046	ug/L	0.006	0	31	49252	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 18:16:45
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	853234 ✓	1
	Be	9	51.238	ug/L	0.408	0	23	154842	1
	C	13		ug/L			82469	82292	2
	Cl	37		ug/L			4833777	4601388	3
>	Sc	45		ug/L			1144296	1120549 ✓	2
	V	51	49.705	ug/L	0.698	1	9450	1041805	1
	V-1	51	49.787	ug/L	0.625	1	48	1036609	0
	Cr	52	49.654	ug/L	1.105	2	27897	888726	1
	Cr	53	49.928	ug/L	0.771	1	145	98764	0
	Mn	55	48.469	ug/L	0.749	1	487	1169731	1
	Co	59	48.704	ug/L	0.384	0	76	864306	2
>	Ge	72		ug/L			608948	570005 ✓	0
	Ni	60	49.885	ug/L	0.781	1	28	183679	1
	Ni	62	49.583	ug/L	0.735	1	64	26166	1
	Cu	63	49.560	ug/L	0.372	0	101	415094	1
	Cu	65	50.734	ug/L	1.205	2	39	187209	2
	Zn	66	49.810	ug/L	0.967	1	991	108015	1
	Zn	67	51.186	ug/L	0.498	0	141	18569	1
	Zn	68	50.939	ug/L	1.060	2	706	78239	1
	As	75	49.871	ug/L	0.730	1	318	99581	1
	As-1	75	50.003	ug/L	0.835	1	12623	108874	1
	Se	82	50.032	ug/L	0.804	1	-10	11817	1
	Se	78	50.587	ug/L	1.038	2	12864	39917	1
	Mo	98	48.672	ug/L	1.158	2	28	259897	1
	Y	89		ug/L			406158	380842	0
	Kr	83		ug/L			794	814	6
>	In	115		ug/L			1093664	1024319 ✓	0
	Ag	107	48.921	ug/L	0.831	1	42	697132	1
	Cd	111	50.390	ug/L	0.414	0	115	252794	0
	Cd	114	51.334	ug/L	0.762	1	65	633563	1
	Sb	121	50.918	ug/L	0.270	0	182	748313	1
	Sb	123	50.731	ug/L	0.900	1	151	565813	1
	Ba	135	50.369	ug/L	0.225	0	15	227251	0
	Ba	137	50.191	ug/L	0.700	1	26	393153	0
>	Tb	159		ug/L			1253683	1170124 ✓	0
	Tl	205	50.169	ug/L	0.707	1	128	1638140	1
	Pb	208	50.199	ug/L	0.165	0	347	2140581	1
	Bi	209		ug/L			2594753	2393173	0
	Th	232	53.443	ug/L	0.374	0	1408	2253297	0
	U	238	54.036	ug/L	0.667	1	31	2443190	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 18:23:38
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	855504 ✓	3
[	Be	9	-0.002	ug/L	0.001	24	23	14	14
	C	13		ug/L			82469	82602	4
	Cl	37		ug/L			4833777	4612890	1
[>	Sc	45		ug/L			1144296	1092333 ✓	2
[	V	51	-0.006	ug/L	0.014	237	9450	8894	0
[	V-1	51	0.000	ug/L	0.000	35	48	54	7
[	Cr	52	-0.017	ug/L	0.044	255	27897	26326	0
[	Cr	53	0.005	ug/L	0.005	108	145	148	9
[	Mn	55	0.007	ug/L	0.001	19	487	637	5
[	Co	59	-0.000	ug/L	0.000	2331	76	72	7
[>	Ge	72		ug/L			608948	555423 ✓	0
[	Ni	60	0.001	ug/L	0.002	172	28	30	23
[	Ni	62	-0.033	ug/L	0.005	16	64	41	6
[	Cu	63	0.006	ug/L	0.001	19	101	142	6
[	Cu	65	0.006	ug/L	0.002	25	39	59	10
[	Zn	66	-0.274	ug/L	0.015	5	991	330	10
[	Zn	67	-0.219	ug/L	0.018	8	141	52	12
[	Zn	68	-0.246	ug/L	0.012	4	706	279	5
[	As	75	0.040	ug/L	0.007	16	318	368	3
[	As-1	75	0.240	ug/L	0.078	32	12623	11966	0
[	Se	82	0.010	ug/L	0.056	546	-10	-6	189
[	Se	78	0.820	ug/L	0.285	34	12864	12174	0
[	Mo	98	0.004	ug/L	0.001	32	28	47	14
	Y	89		ug/L			406158	368114	1
	Kr	83		ug/L			794	800	3
[>	In	115		ug/L			1093664	1006761 ✓	1
[	Ag	107	0.000	ug/L	0.001	158	42	44	18
[	Cd	111	-0.004	ug/L	0.002	43	115	85	9
[	Cd	114	-0.001	ug/L	0.001	95	65	53	12
[	Sb	121	0.041	ug/L	0.002	4	182	754	2
[	Sb	123	0.041	ug/L	0.002	4	151	588	2
[	Ba	135	0.004	ug/L	0.002	49	15	32	27
[	Ba	137	0.005	ug/L	0.000	6	26	61	2
[>	Tb	159		ug/L			1253683	1126705 ✓	2
[	Tl	205	0.008	ug/L	0.005	59	128	356	38
[	Pb	208	0.001	ug/L	0.001	75	347	346	7
[	Bi	209		ug/L			2594753	2397956	0
[	Th	232	0.078	ug/L	0.010	13	1408	4421	7
[	U	238	0.002	ug/L	0.000	5	31	115	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:29:05
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	854661	2
	Be	9	-0.003	ug/L	0.001	34	23	13	18
	C	13		ug/L			82469	85298	3
	Cl	37		ug/L			4833777	4449284	1
>	Sc	45		ug/L			1144296	1098037	1
	V	51	0.003	ug/L	0.004	107	9450	9134	1
	V-1	51	0.001	ug/L	0.001	66	48	75	24
	Cr	52	0.024	ug/L	0.014	57	27897	27180	1
	Cr	53	0.018	ug/L	0.003	16	145	174	2
	Mn	55	0.024	ug/L	0.003	12	487	1023	5
	Co	59	0.002	ug/L	0.001	21	76	115	9
>	Ge	72		ug/L			608948	559204	0
	Ni	60	0.005	ug/L	0.001	18	28	43	6
	Ni	62	-0.030	ug/L	0.012	40	64	43	14
	Cu	63	0.436	ug/L	0.006	1	101	3673	2
	Cu	65	0.457	ug/L	0.014	3	39	1689	2
	Zn	66	0.152	ug/L	0.027	17	991	1230	5
	Zn	67	0.144	ug/L	0.034	23	141	181	7
	Zn	68	0.182	ug/L	0.014	7	706	920	2
	As	75	0.045	ug/L	0.001	3	318	379	1
	As-1	75	0.256	ug/L	0.070	27	12623	12078	0
	Se	82	-0.002	ug/L	0.001	82	-10	-9	3
	Se	78	0.875	ug/L	0.249	28	12864	12286	0
	Mo	98	0.001	ug/L	0.001	161	28	29	18
	Y	89		ug/L			406158	380987	1
	Kr	83		ug/L			794	825	2
>	In	115		ug/L			1093664	1028943	0
	Ag	107	-0.001	ug/L	0.000	35	42	26	17
	Cd	111	-0.005	ug/L	0.001	31	115	85	8
	Cd	114	-0.001	ug/L	0.001	114	65	54	16
	Sb	121	0.006	ug/L	0.002	30	182	263	10
	Sb	123	0.005	ug/L	0.001	21	151	202	6
	Ba	135	0.030	ug/L	0.002	5	15	149	5
	Ba	137	0.026	ug/L	0.003	12	26	232	10
>	Tb	159		ug/L			1253683	1140134	0
	Tl	205	0.004	ug/L	0.002	56	128	251	30
	Pb	208	0.022	ug/L	0.001	5	347	1216	4
	Bi	209		ug/L			2594753	2425352	0
	Th	232	0.028	ug/L	0.003	11	1408	2414	4
	U	238	0.000	ug/L	0.000	46	31	48	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 MB1SPK SWN

Ag

Sample Dil Factor: 20

Comments:

Sample Date/Time: Monday, November 19, 2012 18:33:12

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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			923208	860063	1
⌊	Be	9	24.959	ug/L	0.478	1	23	76032	0
	C	13		ug/L			82469	83898	0
	Cl	37		ug/L			4833777	4538283	2
⌈>	Sc	45		ug/L			1144296	1076985	2
|	V	51	25.425	ug/L	0.744	2	9450	516386	0
|	V-1	51	25.322	ug/L	1.014	4	48	506545	1
|	Cr	52	26.338	ug/L	0.355	1	27897	465409	0
|	Cr	53	25.985	ug/L	1.270	4	145	49443	2
|	Mn	55	25.754	ug/L	0.195	0	487	597622	1
⌊	Co	59	25.449	ug/L	0.686	2	76	433942	1
⌈>	Ge	72		ug/L			608948	564965	0
|	Ni	60	26.306	ug/L	0.181	0	28	96020	1
|	Ni	62	25.530	ug/L	0.768	3	64	13380	2
|	Cu	63	26.105	ug/L	0.039	0	101	216754	1
|	Cu	65	26.438	ug/L	0.513	1	39	96692	0
|	Zn	66	82.017	ug/L	0.591	0	991	175692	0
|	Zn	67	75.259	ug/L	0.273	0	141	26997	0
|	Zn	68	81.421	ug/L	0.832	1	706	123572	1
|	As	75	26.647	ug/L	0.605	2	318	52870	1
|	As-1	75	25.968	ug/L	0.544	2	12623	61667	1
|	Se	82	77.982	ug/L	1.424	1	-10	18261	2
|	Se	78	80.313	ug/L	1.219	1	12864	55801	1
⌊	Mo	98	24.013	ug/L	0.109	0	28	127111	0
	Y	89		ug/L			406158	368882	1
	Kr	83		ug/L			794	828	0
⌈>	In	115		ug/L			1093664	1028579	0
|	Ag	107	24.837	ug/L	0.191	0	42	355438	1
|	Cd	111	24.966	ug/L	0.361	1	115	125838	2
|	Cd	114	25.392	ug/L	0.488	1	65	314768	2
|	Sb	121	24.876	ug/L	0.362	1	182	367162	0
|	Sb	123	25.090	ug/L	0.366	1	151	281070	0
|	Ba	135	25.427	ug/L	0.169	0	15	115205	1
⌊	Ba	137	25.287	ug/L	0.225	0	26	198928	1
⌈>	Tb	159		ug/L			1253683	1154855	1
|	Tl	205	25.832	ug/L	0.063	0	128	832548	1
|	Pb	208	26.076	ug/L	0.316	1	347	1097466	0
|	Bi	209		ug/L			2594753	2450212	0
|	Th	232	25.472	ug/L	0.184	0	1408	1060616	0
⌊	U	238	25.500	ug/L	0.138	0	31	1138019	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 18:37:20
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	885556	2
[	Be	9	0.097	ug/L	0.006	5	23	326	4
	C	13		ug/L			82469	88708	3
	Cl	37		ug/L			4833777	4585145	0
[>	Sc	45		ug/L			1144296	1136754	3
[	V	51	4.570	ug/L	0.178	3	9450	105631	1
[	V-1	51	4.584	ug/L	0.134	2	48	96820	1
[	Cr	52	4.991	ug/L	0.258	5	27897	115471	0
[	Cr	53	5.034	ug/L	0.095	1	145	10230	1
[	Mn	55	217.310	ug/L	10.471	4	487	5313455	1
[	Co	59	1.687	ug/L	0.066	3	76	30412	1
[>	Ge	72		ug/L			608948	579555	1
[	Ni	60	4.269	ug/L	0.105	2	28	16006	1
[	Ni	62	4.460	ug/L	0.016	0	64	2448	1
[	Cu	63	5.074	ug/L	0.085	1	101	43291	1
[	Cu	65	5.138	ug/L	0.108	2	39	19308	2
[	Zn	66	91.621	ug/L	2.552	2	991	201254	3
[	Zn	67	85.586	ug/L	1.417	1	141	31474	1
[	Zn	68	91.844	ug/L	1.582	1	706	142899	2
[	As	75	3.126	ug/L	0.061	1	318	6629	0
[	As-1	75	3.156	ug/L	0.141	4	12623	18240	0
[	Se	82	0.086	ug/L	0.041	47	-10	11	88
[	Se	78	0.032	ug/L	0.333	1055	12864	12259	0
[	Mo	98	0.124	ug/L	0.007	5	28	702	7
	Y	89		ug/L			406158	397868	4
	Kr	83		ug/L			794	836	1
[>	In	115		ug/L			1093664	1054896	0
[	Ag	107	0.077	ug/L	0.002	2	42	1173	2
[	Cd	111	1.958	ug/L	0.037	1	115	10220	1
[	Cd	114	1.922	ug/L	0.019	0	65	24495	1
[	Sb	121	0.076	ug/L	0.001	1	182	1320	1
[	Sb	123	0.075	ug/L	0.001	1	151	1004	0
[	Ba	135	42.146	ug/L	0.121	0	15	195833	1
[	Ba	137	41.720	ug/L	0.189	0	26	336575	0
[>	Tb	159		ug/L			1253683	1166938	0
[	Tl	205	0.090	ug/L	0.002	1	128	3034	1
[	Pb	208	101.432	ug/L	1.083	1	347	4312973	0
[	Bi	209		ug/L			2594753	2446175	0
[	Th	232	1.180	ug/L	0.030	2	1408	50889	3
[	U	238	0.101	ug/L	0.002	1	31	4590	1

VR36 : 00550

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:41:27
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			923208	894740	0
⌊	Be	9	0.476	ug/L	0.007	1	23	1530	1
	C	13		ug/L			82469	120322	1
	Cl	37		ug/L			4833777	4792510	1
⌈>	Sc	45		ug/L			1144296	1199726	2
|	V	51	22.180	ug/L	0.387	1	9450	503141	1
|	V-1	51	22.191	ug/L	0.369	1	48	494658	1
|	Cr	52	23.941	ug/L	0.605	2	27897	473833	0
|	Cr	53	23.967	ug/L	0.546	2	145	50830	0
|	Mn	55	1055.304	ug/L	22.318	2	487	27250147	0
⌊	Co	59	7.851	ug/L	0.166	2	76	149190	1
⌈>	Ge	72		ug/L			608948	570079	2
|	Ni	60	22.130	ug/L	0.651	2	28	81478	1
|	Ni	62	23.035	ug/L	0.389	1	64	12186	1
|	Cu	63	25.495	ug/L	0.746	2	101	213502	1
|	Cu	65	25.778	ug/L	1.125	4	39	95072	1
|	Zn	66	460.683	ug/L	16.551	3	991	990927	1
|	Zn	67	420.949	ug/L	11.290	2	141	151738	2
|	Zn	68	449.883	ug/L	6.836	1	706	685788	1
|	As	75	15.688	ug/L	0.465	2	318	31517	0
|	As-1	75	16.088	ug/L	0.639	3	12623	43029	0
|	Se	82	0.268	ug/L	0.034	12	-10	53	16
|	Se	78	0.696	ug/L	0.589	84	12864	12421	0
⌊	Mo	98	0.622	ug/L	0.018	2	28	3345	0
	Y	89		ug/L			406158	492520	2
	Kr	83		ug/L			794	1027	0
⌈>	In	115		ug/L			1093664	1114123	1
|	Ag	107	0.370	ug/L	0.005	1	42	5772	2
|	Cd	111	8.934	ug/L	0.208	2	115	48835	0
|	Cd	114	8.902	ug/L	0.114	1	65	119535	0
|	Sb	121	0.285	ug/L	0.005	1	182	4746	0
|	Sb	123	0.288	ug/L	0.013	4	151	3650	2
|	Ba	135	202.851	ug/L	3.318	1	15	995204	0
⌊	Ba	137	203.975	ug/L	5.331	2	26	1737274	0
⌈>	Tb	159		ug/L			1253683	1200135	0
|	Tl	205	0.426	ug/L	0.002	0	128	14387	0
|	Pb	208	500.668	ug/L	3.652	0	347	21893568	0
|	Bi	209		ug/L			2594753	2449014	0
|	Th	232	4.782	ug/L	0.024	0	1408	208036	0
⌊	U	238	0.470	ug/L	0.006	1	31	21808	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:45:34
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\111912.cal

AJ

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	879972	1
	Be	9	0.478	ug/L	0.020	4	23	1511	3
	C	13		ug/L			82469	118508	0
	Cl	37		ug/L			4833777	4700436	1
>	Sc	45		ug/L			1144296	1211946	1
	V	51	21.551	ug/L	0.302	1	9450	494344	2
	V-1	51	21.582	ug/L	0.320	1	48	486188	2
	Cr	52	24.534	ug/L	0.287	1	27897	489973	1
	Cr	53	24.617	ug/L	0.120	0	145	52758	1
	Mn	55	998.714	ug/L	11.027	1	487	26059981	1
	Co	59	8.048	ug/L	0.175	2	76	154504	1
>	Ge	72		ug/L			608948	568817	0
	Ni	60	23.336	ug/L	0.620	2	28	85758	2
	Ni	62	24.540	ug/L	0.409	1	64	12954	2
	Cu	63	24.925	ug/L	0.377	1	101	208364	1
	Cu	65	25.317	ug/L	0.145	0	39	93238	1
	Zn	66	452.008	ug/L	14.340	3	991	970666	2
	Zn	67	416.632	ug/L	11.568	2	141	149859	2
	Zn	68	446.581	ug/L	7.025	1	706	679431	1
	As	75	15.770	ug/L	0.202	1	318	31629	1
	As-1	75	16.190	ug/L	0.151	0	12623	43152	1
	Se	82	0.182	ug/L	0.014	7	-10	33	10
	Se	78	0.733	ug/L	0.202	27	12864	12419	0
	Mo	98	0.378	ug/L	0.018	4	28	2043	5
	Y	89		ug/L			406158	486419	1
	Kr	83		ug/L			794	1076	2
>	In	115		ug/L			1093664	1115368	2
	Ag	107	0.331	ug/L	0.017	5	42	5182	4
	Cd	111	8.851	ug/L	0.328	3	115	48423	1
	Cd	114	8.715	ug/L	0.266	3	65	117135	1
	Sb	121	0.252	ug/L	0.014	5	182	4216	3
	Sb	123	0.249	ug/L	0.014	5	151	3177	3
	Ba	135	200.141	ug/L	7.254	3	15	982745	1
	Ba	137	198.143	ug/L	8.693	4	26	1689081	2
>	Tb	159		ug/L			1253683	1183880	2
	Tl	205	0.413	ug/L	0.016	3	128	13769	1
	Pb	208	500.112	ug/L	18.168	3	347	21561021	1
	Bi	209		ug/L			2594753	2440814	1
	Th	232	7.193	ug/L	0.279	3	1408	307833	1
	U	238	0.695	ug/L	0.020	2	31	31787	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:49:42
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	880701	0
[	Be	9	24.352	ug/L	0.522	2	23	75975	2
	C	13		ug/L			82469	116138	0
	Cl	37		ug/L			4833777	4750331	0
[>	Sc	45		ug/L			1144296	1201282	0
|	V	51	44.752	ug/L	0.368	0	9450	1006720	0
|	V-1	51	44.908	ug/L	0.800	1	48	1002589	1
|	Cr	52	45.007	ug/L	0.306	0	27897	866515	0
|	Cr	53	45.532	ug/L	1.906	4	145	96595	4
|	Mn	55	969.179	ug/L	6.839	0	487	25068251	0
[	Co	59	30.073	ug/L	0.152	0	76	572139	0
[>	Ge	72		ug/L			608948	555518	2
|	Ni	60	46.673	ug/L	2.732	5	28	167343	3
|	Ni	62	48.933	ug/L	1.205	2	64	25158	0
|	Cu	63	48.254	ug/L	2.294	4	101	393586	2
|	Cu	65	50.993	ug/L	0.970	1	39	183321	1
|	Zn	66	505.875	ug/L	15.996	3	991	1060402	0
|	Zn	67	474.667	ug/L	20.037	4	141	166638	1
|	Zn	68	507.787	ug/L	20.637	4	706	753910	1
|	As	75	42.811	ug/L	1.689	3	318	83304	1
|	As-1	75	42.115	ug/L	2.138	5	12623	91124	2
|	Se	82	77.582	ug/L	2.233	2	-10	17856	0
|	Se	78	78.676	ug/L	3.889	4	12864	53957	1
[	Mo	98	22.529	ug/L	0.567	2	28	117220	0
	Y	89		ug/L			406158	488611	1
	Kr	83		ug/L			794	1029	1
[>	In	115		ug/L			1093664	1089871	1
|	Ag	107	20.249	ug/L	0.693	3	42	306944	1
|	Cd	111	30.708	ug/L	0.822	2	115	163929	1
|	Cd	114	31.336	ug/L	0.645	2	65	411459	0
|	Sb	121	2.238	ug/L	0.076	3	182	35163	2
|	Sb	123	2.239	ug/L	0.070	3	151	26712	1
|	Ba	135	214.044	ug/L	5.161	2	15	1027288	1
[	Ba	137	215.198	ug/L	5.319	2	26	1793225	1
[>	Tb	159		ug/L			1253683	1194630	0
|	Tl	205	23.966	ug/L	0.563	2	128	798930	1
|	Pb	208	497.438	ug/L	6.620	1	347	21651329	0
|	Bi	209		ug/L			2594753	2419231	0
|	Th	232	26.391	ug/L	0.509	1	1408	1136620	1
[	U	238	24.718	ug/L	0.620	2	31	1140987	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:53:49
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	899018	1
[	Be	9	0.481	ug/L	0.008	1	23	1553	2
	C	13		ug/L			82469	117088	0
	Cl	37		ug/L			4833777	4818104	1
[>	Sc	45		ug/L			1144296	1211667	1
[	V	51	25.393	ug/L	0.722	2	9450	580396	2
[	V-1	51	25.452	ug/L	0.835	3	48	573047	2
[	Cr	52	30.054	ug/L	0.029	0	27897	593428	1
[	Cr	53	30.218	ug/L	0.359	1	145	64707	1
[	Mn	55	764.053	ug/L	14.390	1	487	19931157	1
[	Co	59	8.301	ug/L	0.090	1	76	159330	0
[>	Ge	72		ug/L			608948	576755	1
[	Ni	60	24.327	ug/L	0.647	2	28	90661	3
[	Ni	62	25.711	ug/L	0.332	1	64	13759	2
[	Cu	63	23.279	ug/L	0.320	1	101	197306	0
[	Cu	65	24.193	ug/L	0.632	2	39	90330	1
[	Zn	66	375.578	ug/L	5.566	1	991	817961	1
[	Zn	67	349.887	ug/L	1.561	0	141	127651	1
[	Zn	68	377.038	ug/L	13.709	3	706	581541	2
[	As	75	17.435	ug/L	0.176	1	318	35420	0
[	As-1	75	17.811	ug/L	0.225	1	12623	46935	0
[	Se	82	0.109	ug/L	0.058	52	-10	16	84
[	Se	78	0.409	ug/L	0.134	32	12864	12412	1
[	Mo	98	0.365	ug/L	0.001	0	28	1998	1
	Y	89		ug/L			406158	485878	1
	Kr	83		ug/L			794	1132	1
[>	In	115		ug/L			1093664	1096143	2
[	Ag	107	0.308	ug/L	0.006	1	42	4731	1
[	Cd	111	7.435	ug/L	0.131	1	115	40007	1
[	Cd	114	7.503	ug/L	0.088	1	65	99140	1
[	Sb	121	0.233	ug/L	0.005	2	182	3841	1
[	Sb	123	0.233	ug/L	0.007	2	151	2928	1
[	Ba	135	186.291	ug/L	5.047	2	15	899035	0
[	Ba	137	185.493	ug/L	2.793	1	26	1554662	1
[>	Tb	159		ug/L			1253683	1201329	0
[	Tl	205	0.370	ug/L	0.005	1	128	12510	1
[	Pb	208	394.947	ug/L	2.573	0	347	17288029	0
[	Bi	209		ug/L			2594753	2406518	0
[	Th	232	5.529	ug/L	0.060	1	1408	240548	1
[	U	238	0.513	ug/L	0.006	1	31	23841	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 18:57:56
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\111912.cal

Ag

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			923208	894112	1
Be	9	0.569	ug/L	0.033	5	23	1824	4
C	13		ug/L			82469	117418	1
Cl	37		ug/L			4833777	4790559	3
Sc	45		ug/L			1144296	1223359	1
V	51	22.942	ug/L	0.651	2	9450	530415	2
V-1	51	22.832	ug/L	0.699	3	48	519020	2
Cr	52	22.854	ug/L	0.467	2	27897	462687	0
Cr	53	22.485	ug/L	0.730	3	145	48639	1
Mn	55	1051.851	ug/L	17.716	1	487	27701960	0
Co	59	7.516	ug/L	0.154	2	76	145653	0
Ge	72		ug/L			608948	578470	2
Ni	60	24.865	ug/L	0.214	0	28	92929	2
Ni	62	26.074	ug/L	0.771	2	64	13989	2
Cu	63	31.278	ug/L	0.643	2	101	265829	1
Cu	65	31.893	ug/L	1.222	3	39	119374	1
Zn	66	504.989	ug/L	9.614	1	991	1102510	0
Zn	67	468.640	ug/L	15.192	3	141	171391	2
Zn	68	504.709	ug/L	14.990	2	706	780472	1
As	75	17.149	ug/L	0.349	2	318	34940	0
As-1	75	17.523	ug/L	0.493	2	12623	46496	0
Se	82	0.239	ug/L	0.052	21	-10	47	28
Se	78	0.611	ug/L	0.510	83	12864	12558	0
Mo	98	0.495	ug/L	0.016	3	28	2706	2
Y	89		ug/L			406158	556721	2
Kr	83		ug/L			794	1164	3
In	115		ug/L			1093664	1083169	0
Ag	107	0.299	ug/L	0.004	1	42	4551	1
Cd	111	8.766	ug/L	0.053	0	115	46600	0
Cd	114	8.745	ug/L	0.153	1	65	114190	1
Sb	121	0.248	ug/L	0.004	1	182	4040	1
Sb	123	0.247	ug/L	0.007	2	151	3065	2
Ba	135	287.643	ug/L	3.502	1	15	1372283	1
Ba	137	295.441	ug/L	3.170	1	26	2447243	1
Tb	159		ug/L			1253683	1195420	0
Tl	205	0.386	ug/L	0.002	0	128	12997	0
Pb	208	316.731	ug/L	2.674	0	347	13796241	1
Bi	209		ug/L			2594753	2415244	1
Th	232	4.970	ug/L	0.033	0	1408	215313	1
U	238	0.722	ug/L	0.009	1	31	33360	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 19:03:08
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\111912.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	861791	0
	Be	9	0.068	ug/L	0.011	15	23	229	14
	C	13		ug/L			82469	93203	1
	Cl	37		ug/L			4833777	4452658	0
>	Sc	45		ug/L			1144296	1121040	2
	V	51	3.871	ug/L	0.100	2	9450	89699	0
	V-1	51	3.901	ug/L	0.068	1	48	81290	0
	Cr	52	2.958	ug/L	0.155	5	27897	78652	1
	Cr	53	3.064	ug/L	0.036	1	145	6198	2
	Mn	55	108.260	ug/L	2.296	2	487	2613597	3
	Co	59	0.988	ug/L	0.011	1	76	17615	1
>	Ge	72		ug/L			608948	571786	0
	Ni	60	2.118	ug/L	0.078	3	28	7847	3
	Ni	62	2.318	ug/L	0.087	3	64	1284	3
	Cu	63	3.970	ug/L	0.126	3	101	33442	2
	Cu	65	4.059	ug/L	0.109	2	39	15057	2
	Zn	66	69.381	ug/L	1.585	2	991	150562	1
	Zn	67	66.920	ug/L	1.832	2	141	24310	2
	Zn	68	69.471	ug/L	0.709	1	706	106801	0
	As	75	1.674	ug/L	0.005	0	318	3641	0
	As-1	75	1.689	ug/L	0.038	2	12623	15141	0
	Se	82	0.058	ug/L	0.053	90	-10	4	289
	Se	78	0.127	ug/L	0.131	103	12864	12149	0
	Mo	98	0.095	ug/L	0.006	5	28	536	5
	Y	89		ug/L			406158	399863	1
	Kr	83		ug/L			794	858	4
>	In	115		ug/L			1093664	1049199	1
	Ag	107	0.061	ug/L	0.003	4	42	933	4
	Cd	111	1.473	ug/L	0.003	0	115	7674	1
	Cd	114	1.450	ug/L	0.036	2	65	18384	1
	Sb	121	0.081	ug/L	0.002	2	182	1389	0
	Sb	123	0.079	ug/L	0.004	5	151	1049	3
	Ba	135	41.050	ug/L	0.370	0	15	189692	1
	Ba	137	40.676	ug/L	0.600	1	26	326329	0
>	Tb	159		ug/L			1253683	1163731	0
	Tl	205	0.059	ug/L	0.003	5	128	2037	4
	Pb	208	66.738	ug/L	0.481	0	347	2830109	0
	Bi	209		ug/L			2594753	2481302	0
	Th	232	0.792	ug/L	0.013	1	1408	34481	1
	U	238	0.115	ug/L	0.003	2	31	5208	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 F SWN
Sample Dil Factor: 20
Comments:

Be Ag

Sample Date/Time: Monday, November 19, 2012 19:07:15
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	885037	1
[	Be	9	0.359	ug/L	0.013	3	23	1148	3
	C	13		ug/L			82469	134321	3
	Cl	37		ug/L			4833777	4659496	2
[>	Sc	45		ug/L			1144296	1182025	1
[	V	51	19.489	ug/L	0.178	0	9450	436902	1
[	V-1	51	19.283	ug/L	0.231	1	48	423601	1
[	Cr	52	14.411	ug/L	0.147	1	27897	292598	2
[	Cr	53	13.754	ug/L	0.213	1	145	28810	0
[	Mn	55	541.434	ug/L	20.228	3	487	13774371	2
[	Co	59	5.047	ug/L	0.204	4	76	94528	3
[>	Ge	72		ug/L			608948	572526	1
[	Ni	60	10.888	ug/L	0.312	2	28	40284	1
[	Ni	62	11.812	ug/L	0.202	1	64	6306	0
[	Cu	63	20.036	ug/L	0.343	1	101	168595	1
[	Cu	65	21.132	ug/L	0.348	1	39	78331	0
[	Zn	66	359.971	ug/L	9.837	2	991	778166	1
[	Zn	67	334.195	ug/L	3.972	1	141	121026	0
[	Zn	68	359.762	ug/L	11.384	3	706	550947	2
[	As	75	8.526	ug/L	0.211	2	318	17344	1
[	As-1	75	8.695	ug/L	0.375	4	12623	28816	1
[	Se	82	0.245	ug/L	0.011	4	-10	48	6
[	Se	78	0.445	ug/L	0.551	123	12864	12339	1
[	Mo	98	0.483	ug/L	0.007	1	28	2619	0
	Y	89		ug/L			406158	508433	0
	Kr	83		ug/L			794	992	1
[>	In	115		ug/L			1093664	1086444	0
[	Ag	107	0.305	ug/L	0.006	1	42	4656	1
[	Cd	111	7.173	ug/L	0.046	0	115	38266	0
[	Cd	114	7.231	ug/L	0.103	1	65	94717	1
[	Sb	121	0.429	ug/L	0.006	1	182	6866	1
[	Sb	123	0.423	ug/L	0.011	2	151	5153	2
[	Ba	135	209.210	ug/L	2.853	1	15	1001110	1
[	Ba	137	209.573	ug/L	2.773	1	26	1741172	1
[>	Tb	159		ug/L			1253683	1203314	0
[	Tl	205	0.307	ug/L	0.002	0	128	10427	0
[	Pb	208	352.880	ug/L	2.919	0	347	15472333	1
[	Bi	209		ug/L			2594753	2449417	0
[	Th	232	4.056	ug/L	0.027	0	1408	177131	0
[	U	238	0.592	ug/L	0.005	0	31	27545	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 19:11:24
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	858878 ✓	3
	Be	9	50.186	ug/L	1.896	3	23	152557	1
	C	13		ug/L			82469	82191	1
	Cl	37		ug/L			4833777	4621431	1
>	Sc	45		ug/L			1144296	1089754 ✓	1
	V	51	50.530	ug/L	0.591	1	9450	1029943	1
	V-1	51	50.585	ug/L	0.427	0	48	1024455	1
	Cr	52	50.293	ug/L	1.332	2	27897	874999	1
	Cr	53	50.480	ug/L	0.488	0	145	97119	0
	Mn	55	49.081	ug/L	1.171	2	487	1151770	0
	Co	59	50.166	ug/L	1.328	2	76	865519	1
>	Ge	72		ug/L			608948	559358 ✓	1
	Ni	60	50.162	ug/L	1.165	2	28	181226	1
	Ni	62	48.497	ug/L	1.831	3	64	25109	2
	Cu	63	50.269	ug/L	0.780	1	101	413162	1
	Cu	65	51.033	ug/L	1.646	3	39	184768	3
	Zn	66	49.826	ug/L	0.477	0	991	106029	0
	Zn	67	49.974	ug/L	1.533	3	141	17791	2
	Zn	68	50.784	ug/L	1.361	2	706	76543	2
	As	75	50.197	ug/L	0.576	1	318	98351	0
	As-1	75	50.524	ug/L	0.811	1	12623	107826	0
	Se	82	49.164	ug/L	0.945	1	-10	11394	1
	Se	78	50.403	ug/L	1.292	2	12864	39068	0
	Mo	98	48.944	ug/L	0.453	0	28	256480	1
	Y	89		ug/L			406158	371445	2
	Kr	83		ug/L			794	870	2
>	In	115		ug/L			1093664	1023704 ✓	0
	Ag	107	47.968	ug/L	0.299	0	42	683140	0
	Cd	111	50.234	ug/L	0.829	1	115	251856	1
	Cd	114	50.829	ug/L	0.445	0	65	626961	0
	Sb	121	49.865	ug/L	0.269	0	182	732375	0
	Sb	123	49.925	ug/L	0.683	1	151	556513	0
	Ba	135	49.859	ug/L	1.057	2	15	224800	1
	Ba	137	48.998	ug/L	0.353	0	26	383604	1
>	Tb	159		ug/L			1253683	1149800 ✓	1
	Tl	205	50.230	ug/L	0.202	0	128	1611713	1
	Pb	208	50.482	ug/L	0.652	1	347	2115088	0
	Bi	209		ug/L			2594753	2354420	0
	Th	232	54.769	ug/L	0.973	1	1408	2268833	0
	U	238	54.357	ug/L	0.473	0	31	2415105	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 19:18:17
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	840869	1
	Be	**9**	**-0.002**	ug/L	0.001	65	23	16	21
	C	**13**		ug/L			82469	82701	0
	Cl	**37**		ug/L			4833777	4532988	1
>	**Sc**	**45**		ug/L			1144296	1055699	1
	V	**51**	**-0.002**	ug/L	0.012	584	9450	8679	3
	V-1	**51**	**0.001**	ug/L	0.000	57	48	60	14
	Cr	**52**	**-0.011**	ug/L	0.043	377	27897	25555	3
	Cr	**53**	**-0.002**	ug/L	0.008	508	145	131	12
	Mn	**55**	**0.006**	ug/L	0.003	50	487	581	11
	Co	**59**	**0.000**	ug/L	0.000	458	76	71	8
>	**Ge**	**72**		ug/L			608948	536601	0
	Ni	**60**	**0.005**	ug/L	0.002	44	28	41	17
	Ni	**62**	**-0.023**	ug/L	0.007	31	64	45	8
	Cu	**63**	**0.003**	ug/L	0.001	45	101	113	9
	Cu	**65**	**0.006**	ug/L	0.001	17	39	55	5
	Zn	**66**	**-0.265**	ug/L	0.013	4	991	336	8
	Zn	**67**	**-0.228**	ug/L	0.005	2	141	47	3
	Zn	**68**	**-0.249**	ug/L	0.022	8	706	265	11
	As	**75**	**0.045**	ug/L	0.006	14	318	365	3
	As-1	**75**	**0.425**	ug/L	0.055	12	12623	11899	0
	Se	**82**	**-0.021**	ug/L	0.040	194	-10	-13	65
	Se	**78**	**1.464**	ug/L	0.203	13	12864	12095	0
	Mo	**98**	**0.004**	ug/L	0.002	50	28	47	23
	Y	**89**		ug/L			406158	352476	0
	Kr	**83**		ug/L			794	803	3
>	**In**	**115**		ug/L			1093664	1000810	0
	Ag	**107**	**0.000**	ug/L	0.000	13	42	44	1
	Cd	**111**	**-0.006**	ug/L	0.002	31	115	77	11
	Cd	**114**	**-0.001**	ug/L	0.000	40	65	47	10
	Sb	**121**	**0.039**	ug/L	0.004	9	182	729	7
	Sb	**123**	**0.037**	ug/L	0.003	7	151	544	6
	Ba	**135**	**0.003**	ug/L	0.001	38	15	26	17
	Ba	**137**	**0.004**	ug/L	0.002	58	26	51	30
>	**Tb**	**159**		ug/L			1253683	1099647	1
	Tl	**205**	**0.008**	ug/L	0.004	54	128	346	36
	Pb	**208**	**0.001**	ug/L	0.002	134	347	350	18
	Bi	**209**		ug/L			2594753	2366694	0
	Th	**232**	**0.082**	ug/L	0.003	4	1408	4494	2
	U	**238**	**0.002**	ug/L	0.001	26	31	110	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 19:23:17
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	847972	1
[	**Be**	**9**	**0.004**	ug/L	0.002	39	23	34	14
	C	**13**		ug/L			82469	88684	2
	Cl	**37**		ug/L			4833777	4516560	2
[>	**Sc**	**45**		ug/L			1144296	1082136	1
[	**V**	**51**	**0.020**	ug/L	0.012	62	9450	9330	1
[	**V-1**	**51**	**0.009**	ug/L	0.001	7	48	225	6
[	**Cr**	**52**	**0.077**	ug/L	0.047	60	27897	27661	1
[	**Cr**	**53**	**0.040**	ug/L	0.008	19	145	213	6
[	**Mn**	**55**	**0.115**	ug/L	0.003	2	487	3136	3
[	**Co**	**59**	**0.006**	ug/L	0.001	11	76	174	6
[>	**Ge**	**72**		ug/L			608948	551098	1
[	**Ni**	**60**	**0.016**	ug/L	0.002	13	28	83	10
[	**Ni**	**62**	**-0.030**	ug/L	0.009	28	64	42	9
[	**Cu**	**63**	**0.128**	ug/L	0.007	5	101	1129	3
[	**Cu**	**65**	**0.124**	ug/L	0.006	4	39	479	3
[	**Zn**	**66**	**0.060**	ug/L	0.006	9	991	1022	1
[	**Zn**	**67**	**0.104**	ug/L	0.068	65	141	164	15
[	**Zn**	**68**	**0.079**	ug/L	0.010	12	706	755	2
[	**As**	**75**	**0.065**	ug/L	0.014	20	318	413	4
[	**As-1**	**75**	**0.329**	ug/L	0.032	9	12623	12040	1
[	**Se**	**82**	**-0.047**	ug/L	0.026	54	-10	-20	30
[	**Se**	**78**	**1.046**	ug/L	0.108	10	12864	12199	1
[	**Mo**	**98**	**0.011**	ug/L	0.002	19	28	83	15
	Y	**89**		ug/L			406158	366897	1
	Kr	**83**		ug/L			794	838	1
[>	**In**	**115**		ug/L			1093664	1002663	1
[	**Ag**	**107**	**0.002**	ug/L	0.001	30	42	72	13
[	**Cd**	**111**	**-0.003**	ug/L	0.000	5	115	92	1
[	**Cd**	**114**	**0.001**	ug/L	0.000	13	65	76	3
[	**Sb**	**121**	**0.008**	ug/L	0.001	14	182	284	4
[	**Sb**	**123**	**0.004**	ug/L	0.001	15	151	188	4
[	**Ba**	**135**	**0.034**	ug/L	0.004	10	15	164	9
[	**Ba**	**137**	**0.030**	ug/L	0.000	1	26	258	2
[>	**Tb**	**159**		ug/L			1253683	1114353	0
[	**Tl**	**205**	**0.021**	ug/L	0.009	44	128	760	37
[	**Pb**	**208**	**0.011**	ug/L	0.001	10	347	740	5
[	**Bi**	**209**		ug/L			2594753	2377856	0
[	**Th**	**232**	**0.051**	ug/L	0.007	12	1408	3282	8
[	**U**	**238**	**0.002**	ug/L	0.000	12	31	130	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 19, 2012 19:27:25
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	862681	1
	Be	9	24.068	ug/L	0.684	2	23	73531	1
	C	13		ug/L			82469	89920	1
	Cl	37		ug/L			4833777	4710985	4
>	Sc	45		ug/L			1144296	1106784	2
	V	51	24.886	ug/L	0.352	1	9450	519720	1
	V-1	51	24.986	ug/L	0.464	1	48	513809	1
	Cr	52	25.119	ug/L	0.557	2	27897	457310	0
	Cr	53	25.457	ug/L	0.900	3	145	49785	1
	Mn	55	24.635	ug/L	0.485	1	487	587314	1
	Co	59	24.973	ug/L	0.574	2	76	437660	2
>	Ge	72		ug/L			608948	576336	2
	Ni	60	24.912	ug/L	0.794	3	28	92731	2
	Ni	62	24.739	ug/L	0.389	1	64	13227	0
	Cu	63	25.078	ug/L	0.687	2	101	212328	0
	Cu	65	25.154	ug/L	0.516	2	39	93829	0
	Zn	66	73.651	ug/L	1.466	1	991	161012	1
	Zn	67	69.146	ug/L	1.896	2	141	25305	1
	Zn	68	72.590	ug/L	2.643	3	706	112400	2
	As	75	24.861	ug/L	0.724	2	318	50321	0
	As-1	75	24.068	ug/L	0.791	3	12623	59158	0
	Se	82	70.447	ug/L	1.911	2	-10	16820	0
	Se	78	71.856	ug/L	2.277	3	12864	52192	0
	Mo	98	24.199	ug/L	0.214	0	28	130696	3
	Y	89		ug/L			406158	367234	2
	Kr	83		ug/L			794	841	0
>	In	115		ug/L			1093664	1006816	0
	Ag	107	23.432	ug/L	0.198	0	42	328250	1
	Cd	111	23.855	ug/L	0.106	0	115	117692	1
	Cd	114	24.130	ug/L	0.385	1	65	292741	0
	Sb	121	24.964	ug/L	0.422	1	182	360663	1
	Sb	123	25.033	ug/L	0.281	1	151	274507	0
	Ba	135	25.464	ug/L	0.094	0	15	112929	0
	Ba	137	25.424	ug/L	0.155	0	26	195766	0
>	Tb	159		ug/L			1253683	1162191	0
	Tl	205	24.911	ug/L	0.154	0	128	807996	0
	Pb	208	24.940	ug/L	0.220	0	347	1056412	0
	Bi	209		ug/L			2594753	2349691	0
	Th	232	25.350	ug/L	0.333	1	1408	1062231	0
	U	238	25.218	ug/L	0.228	0	31	1132576	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:31:32
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\111912.cal

Ag, Be

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	864267	1
	Be	**9**	**0.338**	ug/L	0.016	4	23	1056	4
	C	**13**		ug/L			82469	112504	0
	Cl	**37**		ug/L			4833777	4687383	1
>	**Sc**	**45**		ug/L			1144296	1170232	1
	V	**51**	**20.360**	ug/L	0.554	2	9450	451387	2
	V-1	**51**	**20.156**	ug/L	0.516	2	48	438289	1
	Cr	**52**	**15.485**	ug/L	0.578	3	27897	309070	2
	Cr	**53**	**14.834**	ug/L	0.793	5	145	30736	3
	Mn	**55**	**401.264**	ug/L	3.376	0	487	10111452	2
	Co	**59**	**4.539**	ug/L	0.061	1	76	84182	0
>	**Ge**	**72**		ug/L			608948	567828	1
	Ni	**60**	**11.304**	ug/L	0.145	1	28	41481	1
	Ni	**62**	**12.636**	ug/L	0.115	0	64	6687	0
	Cu	**63**	**22.149**	ug/L	0.767	3	101	184795	2
	Cu	**65**	**23.105**	ug/L	0.633	2	39	84922	1
	Zn	**66**	**466.272**	ug/L	17.024	3	991	999279	2
	Zn	**67**	**439.460**	ug/L	9.092	2	141	157781	1
	Zn	**68**	**464.988**	ug/L	2.969	0	706	706190	1
	As	**75**	**10.012**	ug/L	0.091	0	318	20152	1
	As-1	**75**	**10.208**	ug/L	0.119	1	12623	31508	0
	Se	**82**	**0.322**	ug/L	0.074	23	-10	66	25
	Se	**78**	**0.482**	ug/L	0.340	70	12864	12259	0
	Mo	**98**	**0.271**	ug/L	0.008	3	28	1465	1
	Y	**89**		ug/L			406158	501521	0
	Kr	**83**		ug/L			794	979	3
>	**In**	**115**		ug/L			1093664	1091065	0
	Ag	**107**	**0.392**	ug/L	0.012	2	42	5991	2
	Cd	**111**	**9.494**	ug/L	0.019	0	115	50829	0
	Cd	**114**	**9.447**	ug/L	0.120	1	65	124248	0
	Sb	**121**	**0.298**	ug/L	0.006	2	182	4842	2
	Sb	**123**	**0.299**	ug/L	0.003	0	151	3704	0
	Ba	**135**	**118.703**	ug/L	0.577	0	15	570436	0
	Ba	**137**	**118.717**	ug/L	0.882	0	26	990525	0
>	**Tb**	**159**		ug/L			1253683	1189913	1
	Tl	**205**	**0.390**	ug/L	0.002	0	128	13065	0
	Pb	**208**	**392.356**	ug/L	4.644	1	347	17009689	0
	Bi	**209**		ug/L			2594753	2442789	0
	Th	**232**	**4.548**	ug/L	0.027	0	1408	196228	1
	U	**238**	**1.278**	ug/L	0.031	2	31	58772	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 H SWN
Sample Dil Factor: 20
Comments: Ag
Sample Date/Time: Monday, November 19, 2012 19:35:39
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	875789	0
[	Be	9	0.388	ug/L	0.007	1	23	1226	1
	C	13		ug/L			82469	123692	0
	Cl	37		ug/L			4833777	4677475	0
[>	Sc	45		ug/L			1144296	1190543	3
|	V	51	22.179	ug/L	0.644	2	9450	499140	0
|	V-1	51	21.946	ug/L	0.650	2	48	485301	0
|	Cr	52	20.207	ug/L	0.909	4	27897	401235	2
|	Cr	53	19.436	ug/L	0.794	4	145	40913	0
|	Mn	55	510.753	ug/L	11.785	2	487	13086637	0
[	Co	59	5.464	ug/L	0.154	2	76	103031	0
[>	Ge	72		ug/L			608948	571614	0
|	Ni	60	13.010	ug/L	0.110	0	28	48060	1
|	Ni	62	14.339	ug/L	0.138	0	64	7631	0
|	Cu	63	19.990	ug/L	0.402	2	101	167943	1
|	Cu	65	20.584	ug/L	0.380	1	39	76182	1
|	Zn	66	321.771	ug/L	6.483	2	991	694708	2
|	Zn	67	302.091	ug/L	2.219	0	141	109242	0
|	Zn	68	324.399	ug/L	5.934	1	706	496137	1
|	As	75	10.318	ug/L	0.130	1	318	20898	1
|	As-1	75	10.554	ug/L	0.102	0	12623	32392	0
|	Se	82	0.108	ug/L	0.020	18	-10	15	28
|	Se	78	0.418	ug/L	0.074	17	12864	12307	0
[	Mo	98	0.445	ug/L	0.007	1	28	2411	1
	Y	89		ug/L			406158	518944	2
	Kr	83		ug/L			794	1027	2
[>	In	115		ug/L			1093664	1053175	1
|	Ag	107	0.236	ug/L	0.005	2	42	3496	3
|	Cd	111	6.796	ug/L	0.134	1	115	35146	1
|	Cd	114	6.845	ug/L	0.077	1	65	86905	1
|	Sb	121	0.319	ug/L	0.009	2	182	4990	1
|	Sb	123	0.325	ug/L	0.015	4	151	3870	2
|	Ba	135	211.653	ug/L	3.804	1	15	981580	0
[	Ba	137	212.633	ug/L	5.565	2	26	1712008	1
[>	Tb	159		ug/L			1253683	1188621	1
|	Tl	205	0.315	ug/L	0.002	0	128	10554	0
|	Pb	208	255.021	ug/L	3.305	1	347	11043549	0
|	Bi	209		ug/L			2594753	2422789	0
|	Th	232	4.857	ug/L	0.071	1	1408	209214	0
[	U	238	0.694	ug/L	0.006	0	31	31901	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:39:48
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	892770	2
	Be	9	0.361	ug/L	0.009	2	23	1164	0
	C	13		ug/L			82469	119749	0
	Cl	37		ug/L			4833777	4700764	2
>	Sc	45		ug/L			1144296	1199840	0
	V	51	21.677	ug/L	0.149	0	9450	492155	1
	V-1	51	21.534	ug/L	0.080	0	48	480186	0
	Cr	52	19.747	ug/L	0.305	1	27897	396143	1
	Cr	53	19.278	ug/L	0.087	0	145	40936	1
	Mn	55	2097.227	ug/L	9.170	0	487	54179606	1
	Co	59	7.773	ug/L	0.095	1	76	147759	0
>	Ge	72		ug/L			608948	575741	2
	Ni	60	16.317	ug/L	0.911	5	28	60649	3
	Ni	62	16.872	ug/L	0.326	1	64	9030	1
	Cu	63	17.275	ug/L	0.586	3	101	146112	1
	Cu	65	18.016	ug/L	0.505	2	39	67129	0
	Zn	66	438.679	ug/L	19.875	4	991	952794	1
	Zn	67	424.604	ug/L	7.702	1	141	154550	1
	Zn	68	444.307	ug/L	13.999	3	706	683773	0
	As	75	14.632	ug/L	0.437	2	318	29707	1
	As-1	75	14.961	ug/L	0.591	3	12623	41246	1
	Se	82	0.256	ug/L	0.061	23	-10	51	27
	Se	78	0.412	ug/L	0.590	143	12864	12386	1
	Mo	98	1.075	ug/L	0.044	4	28	5820	1
	Y	89		ug/L			406158	476265	1
	Kr	83		ug/L			794	956	4
>	In	115		ug/L			1093664	1075831	0
	Ag	107	0.255	ug/L	0.007	2	42	3857	1
	Cd	111	8.283	ug/L	0.187	2	115	43740	2
	Cd	114	8.316	ug/L	0.099	1	65	107855	1
	Sb	121	0.305	ug/L	0.004	1	182	4880	0
	Sb	123	0.299	ug/L	0.012	3	151	3649	3
	Ba	135	369.784	ug/L	6.198	1	15	1752078	1
	Ba	137	385.858	ug/L	2.784	0	26	3174392	0
>	Tb	159		ug/L			1253683	1196486	1
	Tl	205	0.324	ug/L	0.007	2	128	10934	1
	Pb	208	401.744	ug/L	4.806	1	347	17513276	0
	Bi	209		ug/L			2594753	2469141	0
	Th	232	5.422	ug/L	0.065	1	1408	234953	0
	U	238	0.462	ug/L	0.004	0	31	21403	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:43:55

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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	891901	0
[	Be	9	0.521	ug/L	0.020	3	23	1667	2
	C	13		ug/L			82469	116231	1
	Cl	37		ug/L			4833777	4535393	6
[>	Sc	45		ug/L			1144296	1230444	0
|	V	51	22.400	ug/L	0.806	3	9450	521213	3
|	V-1	51	22.257	ug/L	0.693	3	48	508971	3
|	Cr	52	19.968	ug/L	0.253	1	27897	410448	1
|	Cr	53	19.505	ug/L	0.676	3	145	42465	2
|	Mn	55	949.879	ug/L	6.821	0	487	25164600	0
[	Co	59	8.493	ug/L	0.073	0	76	165557	1
[>	Ge	72		ug/L			608948	570311	0
|	Ni	60	22.195	ug/L	0.507	2	28	81782	1
|	Ni	62	22.431	ug/L	0.614	2	64	11876	2
|	Cu	63	27.033	ug/L	0.192	0	101	226573	0
|	Cu	65	27.675	ug/L	0.603	2	39	102179	1
|	Zn	66	426.360	ug/L	5.664	1	991	918111	1
|	Zn	67	414.541	ug/L	8.161	1	141	149510	1
|	Zn	68	437.534	ug/L	6.846	1	706	667411	1
|	As	75	14.284	ug/L	0.352	2	318	28748	2
|	As-1	75	14.539	ug/L	0.435	2	12623	40056	1
|	Se	82	0.015	ug/L	0.022	147	-10	-6	84
|	Se	78	0.223	ug/L	0.267	119	12864	12171	0
[	Mo	98	0.650	ug/L	0.007	1	28	3500	0
	Y	89		ug/L			406158	519277	1
	Kr	83		ug/L			794	1161	2
[>	In	115		ug/L			1093664	1083473	0
|	Ag	107	0.308	ug/L	0.013	4	42	4681	3
|	Cd	111	8.697	ug/L	0.197	2	115	46241	1
|	Cd	114	8.622	ug/L	0.282	3	65	112593	2
|	Sb	121	0.219	ug/L	0.004	1	182	3584	1
|	Sb	123	0.216	ug/L	0.005	2	151	2700	1
|	Ba	135	305.322	ug/L	5.973	1	15	1456854	1
[	Ba	137	319.224	ug/L	8.076	2	26	2644692	2
[>	Tb	159		ug/L			1253683	1190534	1
|	Tl	205	0.344	ug/L	0.011	3	128	11547	2
|	Pb	208	431.801	ug/L	14.833	3	347	18724589	1
|	Bi	209		ug/L			2594753	2427775	0
|	Th	232	4.852	ug/L	0.140	2	1408	209304	1
[	U	238	0.677	ug/L	0.020	2	31	31166	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:48:03
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	878120	0
	Be	9	0.603	ug/L	0.015	2	23	1896	3
	C	13		ug/L			82469	127497	0
	Cl	37		ug/L			4833777	4528802	1
>	Sc	45		ug/L			1144296	1221219	1
	V	51	28.122	ug/L	0.602	2	9450	646727	0
	V-1	51	27.992	ug/L	0.668	2	48	635156	1
	Cr	52	39.748	ug/L	0.753	1	27897	781304	0
	Cr	53	39.222	ug/L	0.978	2	145	84586	1
	Mn	55	1201.462	ug/L	27.410	2	487	31584050	0
	Co	59	10.927	ug/L	0.205	1	76	211435	3
>	Ge	72		ug/L			608948	572996	0
	Ni	60	27.382	ug/L	0.522	1	28	101358	1
	Ni	62	28.628	ug/L	0.458	1	64	15212	1
	Cu	63	33.522	ug/L	0.275	0	101	282257	0
	Cu	65	34.170	ug/L	0.393	1	39	126748	1
	Zn	66	479.573	ug/L	12.974	2	991	1037292	1
	Zn	67	453.563	ug/L	1.901	0	141	164354	1
	Zn	68	479.371	ug/L	17.688	3	706	734477	2
	As	75	24.992	ug/L	0.077	0	318	50315	0
	As-1	75	25.536	ug/L	0.125	0	12623	61706	0
	Se	82	0.126	ug/L	0.134	106	-10	20	156
	Se	78	0.335	ug/L	0.150	44	12864	12290	0
	Mo	98	0.743	ug/L	0.012	1	28	4015	1
	Y	89		ug/L			406158	491740	1
	Kr	83		ug/L			794	1122	5
>	In	115		ug/L			1093664	1076843	0
	Ag	107	0.359	ug/L	0.001	0	42	5426	0
	Cd	111	10.558	ug/L	0.157	1	115	55770	0
	Cd	114	10.632	ug/L	0.082	0	65	137999	0
	Sb	121	0.212	ug/L	0.005	2	182	3446	2
	Sb	123	0.217	ug/L	0.004	1	151	2692	2
	Ba	135	332.510	ug/L	4.875	1	15	1576986	0
	Ba	137	344.135	ug/L	4.239	1	26	2833788	0
>	Tb	159		ug/L			1253683	1185084	1
	Tl	205	0.406	ug/L	0.006	1	128	13536	0
	Pb	208	515.519	ug/L	3.460	0	347	22259563	0
	Bi	209		ug/L			2594753	2430746	0
	Th	232	7.247	ug/L	0.103	1	1408	310563	0
	U	238	0.626	ug/L	0.011	1	31	28705	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:52:47
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\111912.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	868430	0
	Be	9	0.240	ug/L	0.017	6	23	759	7
	C	13		ug/L			82469	102233	0
	Cl	37		ug/L			4833777	4511549	2
>	Sc	45		ug/L			1144296	1160807	0
	V	51	12.291	ug/L	0.156	1	9450	274133	1
	V-1	51	12.291	ug/L	0.076	0	48	265184	1
	Cr	52	8.821	ug/L	0.302	3	27897	186852	2
	Cr	53	8.846	ug/L	0.130	1	145	18252	2
	Mn	55	167.140	ug/L	0.691	0	487	4177845	0
	Co	59	2.372	ug/L	0.023	0	76	43670	0
>	Ge	72		ug/L			608948	574184	1
	Ni	60	7.595	ug/L	0.169	2	28	28190	1
	Ni	62	7.875	ug/L	0.265	3	64	4235	2
	Cu	63	7.787	ug/L	0.027	0	101	65781	1
	Cu	65	7.967	ug/L	0.230	2	39	29639	2
	Zn	66	93.079	ug/L	1.667	1	991	202496	0
	Zn	67	88.112	ug/L	0.810	0	141	32099	0
	Zn	68	92.425	ug/L	0.986	1	706	142479	2
	As	75	5.924	ug/L	0.046	0	318	12180	0
	As-1	75	5.995	ug/L	0.141	2	12623	23622	0
	Se	82	0.115	ug/L	0.060	51	-10	17	80
	Se	78	0.078	ug/L	0.387	495	12864	12172	1
	Mo	98	0.153	ug/L	0.002	1	28	850	2
	Y	89		ug/L			406158	453830	3
	Kr	83		ug/L			794	915	2
>	In	115		ug/L			1093664	1037901	0
	Ag	107	0.111	ug/L	0.006	5	42	1637	4
	Cd	111	1.585	ug/L	0.040	2	115	8160	1
	Cd	114	1.547	ug/L	0.015	0	65	19410	0
	Sb	121	0.109	ug/L	0.007	6	182	1791	5
	Sb	123	0.107	ug/L	0.005	4	151	1347	2
	Ba	135	42.122	ug/L	0.337	0	15	192564	0
	Ba	137	41.719	ug/L	0.743	1	26	331118	1
>	Tb	159		ug/L			1253683	1169205	0
	Tl	205	0.148	ug/L	0.002	1	128	4963	0
	Pb	208	86.149	ug/L	0.436	0	347	3670388	0
	Bi	209		ug/L			2594753	2449037	0
	Th	232	5.080	ug/L	0.049	0	1408	215225	0
	U	238	0.481	ug/L	0.005	0	31	21744	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 A REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 19:57:59
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\111912.cal

Mn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	830250	2
	Be	**9**	**0.006**	ug/L	0.000	6	23	39	1
	C	**13**		ug/L			82469	82432	2
	Cl	**37**		ug/L			4833777	4560860	2
>	**Sc**	**45**		ug/L			1144296	1080989 ✓	0
	V	**51**	**0.760**	ug/L	0.008	1	9450	24157	0
	V-1	**51**	**0.805**	ug/L	0.009	1	48	16211	0
	Cr	**52**	**2.325**	ug/L	0.057	2	27897	65284	2
	Cr	**53**	**2.465**	ug/L	0.043	1	145	4835	2
	Mn	**55**	**66.928**	ug/L	1.289	1	487	1558180	2
	Co	**59**	**0.375**	ug/L	0.004	1	76	6485	0
>	**Ge**	**72**		ug/L			608948	561132	2
	Ni	**60**	**2.016**	ug/L	0.039	1	28	7332	2
	Ni	**62**	**1.952**	ug/L	0.103	5	64	1070	2
	Cu	**63**	**10.430**	ug/L	0.513	4	101	86011	2
	Cu	**65**	**10.632**	ug/L	0.115	1	39	38642	1
	Zn	**66**	**165.909**	ug/L	5.603	3	991	351907	1
	Zn	**67**	**153.318**	ug/L	3.398	2	141	54477	1
	Zn	**68**	**160.981**	ug/L	5.251	3	706	241913	1
	As	**75**	**0.263**	ug/L	0.022	8	318	807	3
	As-1	**75**	**0.246**	ug/L	0.147	59	12623	12097	0
	Se	**82**	**0.089**	ug/L	0.022	24	-10	11	44
	Se	**78**	**0.146**	ug/L	0.472	322	12864	11930	0
	Mo	**98**	**0.870**	ug/L	0.028	3	28	4596	1
	Y	**89**		ug/L			406158	362760	1
	Kr	**83**		ug/L			794	822	0
>	**In**	**115**		ug/L			1093664	996893	0
	Ag	**107**	**0.000**	ug/L	0.000	73	42	41	5
	Cd	**111**	**0.440**	ug/L	0.009	2	115	2254	2
	Cd	**114**	**0.443**	ug/L	0.005	1	65	5384	1
	Sb	**121**	**0.339**	ug/L	0.003	0	182	5014	1
	Sb	**123**	**0.348**	ug/L	0.005	1	151	3912	1
	Ba	**135**	**12.529**	ug/L	0.249	1	15	55021	1
	Ba	**137**	**12.396**	ug/L	0.211	1	26	94519	1
>	**Tb**	**159**		ug/L			1253683	1128430	1
	Tl	**205**	**0.003**	ug/L	0.001	23	128	214	9
	Pb	**208**	**25.452**	ug/L	0.255	1	347	1046692	1
	Bi	**209**		ug/L			2594753	2381812	0
	Th	**232**	**0.023**	ug/L	0.001	2	1408	2204	0
	U	**238**	**0.020**	ug/L	0.001	3	31	892	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR73 C REN
Sample Dil Factor: 20
Comments:

Mn

Sample Date/Time: Monday, November 19, 2012 20:02:06
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	821730	2
	Be	9	-0.002	ug/L	0.001	39	23	15	13
	C	13		ug/L			82469	83575	2
	Cl	37		ug/L			4833777	4516460	5
>	Sc	45		ug/L			1144296	1049290	0
	V	51	0.005	ug/L	0.001	9	9450	8772	0
	V-1	51	0.024	ug/L	0.003	10	48	504	9
	Cr	52	0.081	ug/L	0.011	13	27897	26889	0
	Cr	53	0.141	ug/L	0.015	10	145	394	6
	Mn	55	36.842	ug/L	0.841	2	487	832803	2
	Co	59	0.037	ug/L	0.001	3	76	688	3
>	Ge	72		ug/L			608948	556972	1
	Ni	60	0.405	ug/L	0.007	1	28	1484	3
	Ni	62	0.348	ug/L	0.017	4	64	237	5
	Cu	63	0.375	ug/L	0.010	2	101	3163	2
	Cu	65	0.263	ug/L	0.010	3	39	985	2
	Zn	66	3.620	ug/L	0.134	3	991	8510	3
	Zn	67	3.541	ug/L	0.094	2	141	1375	1
	Zn	68	3.582	ug/L	0.080	2	706	5975	0
	As	75	0.087	ug/L	0.014	15	318	459	4
	As-1	75	0.185	ug/L	0.124	67	12623	11893	0
	Se	82	0.051	ug/L	0.014	27	-10	2	129
	Se	78	0.510	ug/L	0.429	84	12864	12038	0
	Mo	98	2.228	ug/L	0.023	1	28	11654	2
	Y	89		ug/L			406158	359771	2
	Kr	83		ug/L			794	806	1
>	In	115		ug/L			1093664	1003914	0
	Ag	107	-0.001	ug/L	0.000	2	42	23	2
	Cd	111	0.025	ug/L	0.004	17	115	230	9
	Cd	114	0.029	ug/L	0.003	8	65	415	6
	Sb	121	0.279	ug/L	0.009	3	182	4178	2
	Sb	123	0.277	ug/L	0.003	0	151	3167	0
	Ba	135	4.501	ug/L	0.051	1	15	19914	1
	Ba	137	4.482	ug/L	0.081	1	26	34434	1
>	Tb	159		ug/L			1253683	1124562	0
	Tl	205	0.001	ug/L	0.001	73	128	139	12
	Pb	208	0.010	ug/L	0.004	36	347	703	19
	Bi	209		ug/L			2594753	2407151	0
	Th	232	-0.017	ug/L	0.001	3	1408	561	3
	U	238	0.008	ug/L	0.000	6	31	354	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 20:06:15
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	826813 ✓	1
	Be	9	50.207	ug/L	0.983	1	23	147004	1
	C	13		ug/L			82469	80779	1
	Cl	37		ug/L			4833777	4565344	2
>	Sc	45		ug/L			1144296	1058759 ✓	2
	V	51	49.582	ug/L	0.963	1	9450	981905	1
	V-1	51	49.384	ug/L	1.352	2	48	971358	1
	Cr	52	49.718	ug/L	0.519	1	27897	840825	1
	Cr	53	49.051	ug/L	2.114	4	145	91640	2
	Mn	55	47.601	ug/L	0.841	1	487	1085283	0
	Co	59	48.338	ug/L	2.048	4	76	809974	1
>	Ge	72		ug/L			608948	544288 ✓	1
	Ni	60	48.751	ug/L	1.218	2	28	171382	1
	Ni	62	48.145	ug/L	1.167	2	64	24258	1
	Cu	63	49.172	ug/L	1.129	2	101	393187	1
	Cu	65	49.411	ug/L	1.328	2	39	174044	1
	Zn	66	49.820	ug/L	1.136	2	991	103171	2
	Zn	67	49.750	ug/L	2.348	4	141	17228	3
	Zn	68	50.508	ug/L	1.229	2	706	74069	0
	As	75	49.195	ug/L	0.922	1	318	93787	0
	As-1	75	49.647	ug/L	1.263	2	12623	103280	0
	Se	82	48.177	ug/L	0.718	1	-10	10864	1
	Se	78	49.856	ug/L	1.737	3	12864	37724	1
	Mo	98	48.316	ug/L	0.712	1	28	246337	0
	Y	89		ug/L			406158	354385	0
	Kr	83		ug/L			794	847	2
>	In	115		ug/L			1093664	985348 ✓	0
	Ag	107	47.381	ug/L	0.756	1	42	649511	1
	Cd	111	49.553	ug/L	0.900	1	115	239143	1
	Cd	114	50.673	ug/L	0.349	0	65	601638	0
	Sb	121	50.136	ug/L	0.683	1	182	708758	1
	Sb	123	50.328	ug/L	0.243	0	151	540006	0
	Ba	135	50.394	ug/L	0.886	1	15	218708	1
	Ba	137	49.185	ug/L	0.513	1	26	370642	1
>	Tb	159		ug/L			1253683	1137553 ✓	0
	Tl	205	48.657	ug/L	0.358	0	128	1544541	0
	Pb	208	49.025	ug/L	0.425	0	347	2032238	0
	Bi	209		ug/L			2594753	2339429	1
	Th	232	53.680	ug/L	0.292	0	1408	2200267	0
	U	238	53.786	ug/L	0.250	0	31	2364320	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 20:13:07
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	807893 ✓	0
	Be	9	-0.001	ug/L	0.001	120	23	18	15
	C	13		ug/L			82469	79923	1
	Cl	37		ug/L			4833777	4543778	3
>	Sc	45		ug/L			1144296	1036351 ✓	0
	V	51	0.020	ug/L	0.006	30	9450	8946	0
	V-1	51	0.003	ug/L	0.001	39	48	98	21
	Cr	52	0.067	ug/L	0.019	28	27897	26332	0
	Cr	53	0.008	ug/L	0.001	13	145	146	1
	Mn	55	0.016	ug/L	0.001	4	487	790	2
	Co	59	0.001	ug/L	0.001	49	76	90	12
>	Ge	72		ug/L			608948	528134 ✓	1
	Ni	60	0.003	ug/L	0.001	32	28	34	7
	Ni	62	-0.029	ug/L	0.015	50	64	41	16
	Cu	63	0.006	ug/L	0.002	25	101	134	7
	Cu	65	0.009	ug/L	0.005	56	39	66	26
	Zn	66	-0.283	ug/L	0.005	1	991	295	3
	Zn	67	-0.218	ug/L	0.008	3	141	50	6
	Zn	68	-0.264	ug/L	0.027	10	706	240	16
	As	75	0.063	ug/L	0.004	5	318	393	2
	As-1	75	0.509	ug/L	0.111	21	12623	11861	0
	Se	82	0.061	ug/L	0.041	67	-10	4	195
	Se	78	1.738	ug/L	0.408	23	12864	12043	0
	Mo	98	0.004	ug/L	0.002	42	28	43	16
	Y	89		ug/L			406158	338390	1
	Kr	83		ug/L			794	762	3
>	In	115		ug/L			1093664	964362 ✓	0
	Ag	107	0.000	ug/L	0.001	762	42	38	26
	Cd	111	-0.003	ug/L	0.001	36	115	89	4
	Cd	114	0.000	ug/L	0.001	4101	65	58	15
	Sb	121	0.048	ug/L	0.002	3	182	830	2
	Sb	123	0.042	ug/L	0.002	5	151	573	3
	Ba	135	0.008	ug/L	0.000	4	15	49	4
	Ba	137	0.009	ug/L	0.002	18	26	88	13
>	Tb	159		ug/L			1253683	1082602 ✓	0
	Tl	205	0.002	ug/L	0.000	18	128	157	5
	Pb	208	0.006	ug/L	0.000	6	347	528	2
	Bi	209		ug/L			2594753	2311992	0
	Th	232	0.081	ug/L	0.009	11	1408	4355	8
	U	238	0.002	ug/L	0.000	18	31	128	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:17:16
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	828249	0
	Be	9	U -0.004	ug/L	0.001	17	23	9	22
	C	13		ug/L			82469	84726	1
	Cl	37		ug/L			4833777	4505499	2
>	Sc	45		ug/L			1144296	1048004	1
	V	51	U 0.009	ug/L	0.012	127	9450	8833	1
	V-1	51	0.001	ug/L	0.000	28	48	62	8
	Cr	52	U 0.080	ug/L	0.036	45	27897	26844	1
	Cr	53	0.052	ug/L	0.005	9	145	228	4
	Mn	55	0.052	ug/L	0.002	4	487	1612	4
	Co	59	U 0.002	ug/L	0.001	35	76	97	11
>	Ge	72		ug/L			608948	529385	1
	Ni	60	U 0.019	ug/L	0.001	5	28	91	3
	Ni	62	-0.021	ug/L	0.006	29	64	45	6
	Cu	63	U 0.016	ug/L	0.000	2	101	213	0
	Cu	65	0.018	ug/L	0.002	9	39	97	5
	Zn	66	U -0.105	ug/L	0.016	15	991	651	5
	Zn	67	-0.074	ug/L	0.022	29	141	98	6
	Zn	68	-0.092	ug/L	0.010	10	706	483	3
	As	75	U 0.034	ug/L	0.024	70	318	338	13
	As-1	75	0.487	ug/L	0.122	24	12623	11849	0
	Se	82	U -0.087	ug/L	0.020	23	-10	-27	16
	Se	78	1.705	ug/L	0.470	27	12864	12055	1
	Mo	98	-0.001	ug/L	0.001	63	28	18	22
	Y	89		ug/L			406158	347409	2
	Kr	83		ug/L			794	827	1
>	In	115		ug/L			1093664	975581	1
	Ag	107	U -0.001	ug/L	0.000	41	42	25	19
	Cd	111	U -0.005	ug/L	0.001	25	115	79	8
	Cd	114	-0.001	ug/L	0.001	57	65	42	22
	Sb	121	U 0.008	ug/L	0.001	8	182	271	4
	Sb	123	0.006	ug/L	0.002	32	151	201	11
	Ba	135	0.020	ug/L	0.000	2	15	101	2
	Ba	137	0.020	ug/L	0.001	5	26	173	3
>	Tb	159		ug/L			1253683	1080467	1
	Tl	205	U 0.001	ug/L	0.001	113	128	141	25
	Pb	208	U 0.006	ug/L	0.000	8	347	533	2
	Bi	209		ug/L			2594753	2318579	0
	Th	232	0.042	ug/L	0.006	14	1408	2853	6
	U	238	0.000	ug/L	0.000	46	31	28	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:21:23
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	816997 ✓	0
	Be	9	25.036	ug/L	0.168	0	23	72456	0
	C	13		ug/L			82469	82755	1
	Cl	37		ug/L			4833777	4490823	3
>	Sc	45		ug/L			1144296	1033936 ✓	1
	V	51	24.981	ug/L	0.455	1	9450	487368	0
	V-1	51	25.001	ug/L	0.515	2	48	480330	0
	Cr	52	25.993	ug/L	0.482	1	27897	441320	1
	Cr	53	26.054	ug/L	0.711	2	145	47618	1
	Mn	55	25.185	ug/L	0.956	3	487	560925	2
	Co	59	25.571	ug/L	1.173	4	76	418559	3
>	Ge	72		ug/L			608948	529469 ✓	0
	Ni	60	26.372	ug/L	0.334	1	28	90220	2
	Ni	62	25.555	ug/L	0.472	1	64	12552	1
	Cu	63	25.965	ug/L	0.760	2	101	202022	2
	Cu	65	27.863	ug/L	0.087	0	39	95514	1
	Zn	66	83.756	ug/L	1.819	2	991	168128	2
	Zn	67	77.467	ug/L	1.337	1	141	26042	2
	Zn	68	82.834	ug/L	2.112	2	706	117790	1
	As	75	27.099	ug/L	0.527	1	318	50384	1
	As-1	75	26.864	ug/L	0.654	2	12623	59406	1
	Se	82	78.930	ug/L	1.644	2	-10	17320	1
	Se	78	82.932	ug/L	2.081	2	12864	53630	1
	Mo	98	24.112	ug/L	0.144	0	28	119614	0
	Y	89		ug/L			406158	348069	0
	Kr	83		ug/L			794	820	1
>	In	115		ug/L			1093664	976931 ✓	0
	Ag	107	24.662	ug/L	0.403	1	42	335192	1
	Cd	111	25.373	ug/L	0.509	2	115	121446	1
	Cd	114	25.497	ug/L	0.207	0	65	300174	1
	Sb	121	25.264	ug/L	0.046	0	182	354183	0
	Sb	123	24.901	ug/L	0.566	2	151	264948	1
	Ba	135	25.613	ug/L	0.157	0	15	110222	0
	Ba	137	25.635	ug/L	0.147	0	26	191532	0
>	Tb	159		ug/L			1253683	1071018 ✓	0
	Tl	205	26.668	ug/L	0.445	1	128	797017	0
	Pb	208	26.973	ug/L	0.218	0	347	1052836	0
	Bi	209		ug/L			2594753	2347132	0
	Th	232	26.609	ug/L	0.247	0	1408	1027445	0
	U	238	26.575	ug/L	0.346	1	31	1099793	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 20:25:30
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\111912.cal

rr Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	835431	0
	Be	9	0.043	ug/L	0.001	3	23	148	2
	C	13		ug/L			82469	82265	0
	Cl	37		ug/L			4833777	4434081	0
>	Sc	45		ug/L			1144296	1057533	0
	V	51	1.935	ug/L	0.018	0	9450	46685	1
	V-1	51	1.928	ug/L	0.019	0	48	37941	1
	Cr	52	1.576	ug/L	0.032	1	27897	51594	0
	Cr	53	1.555	ug/L	0.031	1	145	3033	1
	Mn	55	55.503	ug/L	1.341	2	487	1264237	2
	Co	59	0.455	ug/L	0.004	0	76	7689	0
>	Ge	72		ug/L			608948	544761	1
	Ni	60	1.281	ug/L	0.015	1	28	4532	1
	Ni	62	1.234	ug/L	0.058	4	64	678	3
	Cu	63	2.780	ug/L	0.049	1	101	22337	1
	Cu	65	2.784	ug/L	0.028	1	39	9848	0
	Zn	66	45.293	ug/L	0.480	1	991	93948	0
	Zn	67	40.048	ug/L	0.816	2	141	13913	2
	Zn	68	44.389	ug/L	0.410	0	706	65241	0
	As	75	2.202	ug/L	0.027	1	318	4474	1
	As-1	75	2.481	ug/L	0.049	1	12623	15895	1
	Se	82	-0.024	ug/L	0.035	145	-10	-14	55
	Se	78	0.952	ug/L	0.050	5	12864	12010	1
	Mo	98	0.047	ug/L	0.004	8	28	265	6
	Y	89		ug/L			406158	359705	1
	Kr	83		ug/L			794	841	2
>	In	115		ug/L			1093664	1007681	0
	Ag	107	0.052	ug/L	0.005	9	42	768	8
	Cd	111	1.051	ug/L	0.028	2	115	5292	2
	Cd	114	1.064	ug/L	0.025	2	65	12974	1
	Sb	121	0.343	ug/L	0.007	1	182	5132	2
	Sb	123	0.335	ug/L	0.014	4	151	3818	3
	Ba	135	12.102	ug/L	0.156	1	15	53725	0
	Ba	137	12.093	ug/L	0.159	1	26	93209	0
>	Tb	159		ug/L			1253683	1112027	0
	Tl	205	0.054	ug/L	0.002	2	128	1804	2
	Pb	208	57.178	ug/L	0.435	0	347	2316987	0
	Bi	209		ug/L			2594753	2404181	0
	Th	232	0.881	ug/L	0.047	5	1408	36519	4
	U	238	0.077	ug/L	0.000	0	31	3334	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:29:38
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\111912.cal

nr Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	850923 ✓	2
[	Be	9	0.214	ug/L	0.009	4	23	666	2
	C	13		ug/L			82469	98451	0
	Cl	37		ug/L			4833777	4530681	2
[>	Sc	45		ug/L			1144296	1094653 ✓	0
[	V	51	9.644	ug/L	0.093	0	9450	204771	0
[	V-1	51	9.655	ug/L	0.151	1	48	196428	0
[	Cr	52	7.533	ug/L	0.010	0	27897	154384	0
[	Cr	53	7.586	ug/L	0.225	2	145	14777	2
[	Mn	55	277.495	ug/L	3.715	1	487	6540289	0
[	Co	59	2.212	ug/L	0.022	1	76	38423	1
[>	Ge	72		ug/L			608948	553421 ✓	2
[	Ni	60	6.295	ug/L	0.167	2	28	22518	0
[	Ni	62	6.450	ug/L	0.406	6	64	3352	3
[	Cu	63	13.603	ug/L	0.705	5	101	110610	3
[	Cu	65	13.833	ug/L	0.500	3	39	49557	1
[	Zn	66	215.835	ug/L	8.172	3	991	451210	1
[	Zn	67	200.802	ug/L	6.935	3	141	70312	1
[	Zn	68	210.427	ug/L	6.832	3	706	311664	0
[	As	75	10.691	ug/L	0.249	2	318	20948	1
[	As-1	75	11.091	ug/L	0.401	3	12623	32363	0
[	Se	82	~~0.250~~	ug/L	0.019	7	-10	48	11
[	Se	78	0.921	ug/L	0.644	69	12864	12179	0
[	Mo	98	0.196	ug/L	0.006	3	28	1040	1
	Y	89		ug/L			406158	425441	0
	Kr	83		ug/L			794	862	3
[>	In	115		ug/L			1093664	1031683 ✓	1
[	Ag	107	0.245	ug/L	0.005	1	42	3558	0
[	Cd	111	5.104	ug/L	0.083	1	115	25885	1
[	Cd	114	5.160	ug/L	0.107	2	65	64192	1
[	Sb	121	1.575	ug/L	0.041	2	182	23469	2
[	Sb	123	1.540	ug/L	0.027	1	151	17436	1
[	Ba	135	59.946	ug/L	1.342	2	15	272367	1
[	Ba	137	58.980	ug/L	0.516	0	26	465302	0
[>	Tb	159		ug/L			1253683	1135721 ✓	0
[	Tl	205	0.262	ug/L	0.008	2	128	8417	2
[	Pb	208	298.721	ug/L	4.343	1	347	12361227	0
[	Bi	209		ug/L			2594753	2402771	0
[	Th	232	3.482	ug/L	0.072	2	1408	143678	1
[	U	238	0.363	ug/L	0.007	1	31	15948	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:33:45
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\111912.cal

rr Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	861482 ✓	0
[	Be	9	0.210	ug/L	0.010	4	23	663	4
	C	13		ug/L			82469	98183	1
	Cl	37		ug/L			4833777	4528418	1
[>	Sc	45		ug/L			1144296	1105701 ✓	1
[	V	51	9.926	ug/L	0.066	0	9450	212616	0
[	V-1	51	9.901	ug/L	0.108	1	48	203476	0
[	Cr	52	7.861	ug/L	0.085	1	27897	161553	0
[	Cr	53	7.794	ug/L	0.185	2	145	15332	1
[	Mn	55	274.063	ug/L	7.267	2	487	6524173	2
[	Co	59	2.267	ug/L	0.047	2	76	39759	1
[>	Ge	72		ug/L			608948	555499 ✓	0
[	Ni	60	6.674	ug/L	0.060	0	28	23972	0
[	Ni	62	7.055	ug/L	0.123	1	64	3678	2
[	Cu	63	15.706	ug/L	0.299	1	101	128263	2
[	Cu	65	16.104	ug/L	0.313	1	39	57924	1
[	Zn	66	209.547	ug/L	3.899	1	991	439959	1
[	Zn	67	192.009	ug/L	1.426	0	141	67526	1
[	Zn	68	210.357	ug/L	1.563	0	706	312890	1
[	As	75	10.595	ug/L	0.043	0	318	20846	1
[	As-1	75	11.004	ug/L	0.078	0	12623	32329	0
[	Se	82	0.170	ug/L	0.088	51	-10	29	67
[	Se	78	0.889	ug/L	0.356	39	12864	12212	0
[	Mo	98	0.218	ug/L	0.005	2	28	1160	1
	Y	89		ug/L			406158	424277	1
	Kr	83		ug/L			794	875	3
[>	In	115		ug/L			1093664	1035967 ✓	0
[	Ag	107	0.248	ug/L	0.010	3	42	3606	3
[	Cd	111	4.580	ug/L	0.041	0	115	23337	0
[	Cd	114	4.643	ug/L	0.030	0	65	58011	0
[	Sb	121	1.239	ug/L	0.011	0	182	18590	1
[	Sb	123	1.214	ug/L	0.015	1	151	13833	0
[	Ba	135	56.009	ug/L	1.311	2	15	255551	1
[	Ba	137	55.094	ug/L	0.911	1	26	436461	1
[>	Tb	159		ug/L			1253683	1143611 ✓	0
[	Tl	205	0.255	ug/L	0.006	2	128	8255	1
[	Pb	208	300.275	ug/L	1.555	0	347	12512546	0
[	Bi	209		ug/L			2594753	2426731	0
[	Th	232	3.043	ug/L	0.008	0	1408	126595	0
[	U	238	0.365	ug/L	0.005	1	31	16159	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:37:53
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\111912.cal

rr Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	852126 ✓	0
	Be	9	25.645	ug/L	0.063	0	23	77414	0
	C	13		ug/L			82469	95610	0
	Cl	37		ug/L			4833777	4473513	2
>	Sc	45		ug/L			1144296	1102572 ✓	2
	V	51	35.389	ug/L	0.321	0	9450	732509	1
	V-1	51	35.363	ug/L	0.580	1	48	724449	1
	Cr	52	32.659	ug/L	0.494	1	27897	584380	1
	Cr	53	32.590	ug/L	1.164	3	145	63457	0
	Mn	55	320.587	ug/L	6.434	2	487	7609679	2
	Co	59	26.689	ug/L	0.372	1	76	465938	1
>	Ge	72		ug/L			608948	560815 ✓	0
	Ni	60	31.164	ug/L	0.433	1	28	112907	0
	Ni	62	30.614	ug/L	0.691	2	64	15916	1
	Cu	63	38.580	ug/L	0.836	2	101	317919	1
	Cu	65	38.597	ug/L	0.979	2	39	140114	2
	Zn	66	288.589	ug/L	2.108	0	991	611374	0
	Zn	67	258.640	ug/L	5.515	2	141	91779	1
	Zn	68	284.963	ug/L	2.327	0	706	427683	1
	As	75	37.113	ug/L	0.085	0	318	72988	0
	As-1	75	36.431	ug/L	0.123	0	12623	81202	0
	Se	82	78.530	ug/L	1.030	1	-10	18254	0
	Se	78	80.028	ug/L	0.642	0	12864	55236	0
	Mo	98	22.438	ug/L	0.521	2	28	117902	2
	Y	89		ug/L			406158	421527	1
	Kr	83		ug/L			794	872	5
>	In	115		ug/L			1093664	1039088 ✓	0
	Ag	107	20.923	ug/L	0.326	1	42	302491	1
	Cd	111	28.758	ug/L	0.240	0	115	146401	0
	Cd	114	28.666	ug/L	0.234	0	65	358934	0
	Sb	121	5.973	ug/L	0.077	1	182	89193	1
	Sb	123	5.929	ug/L	0.078	1	151	67213	1
	Ba	135	79.434	ug/L	0.997	1	15	363543	1
	Ba	137	79.655	ug/L	1.099	1	26	632956	1
>	Tb	159		ug/L			1253683	1146512 ✓	0
	Tl	205	24.927	ug/L	0.036	0	128	797588	0
	Pb	208	320.225	ug/L	1.224	0	347	13377801	0
	Bi	209		ug/L			2594753	2411044	0
	Th	232	27.463	ug/L	0.245	0	1408	1135159	0
	U	238	25.621	ug/L	0.297	1	31	1135120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:42:00
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\111912.cal

Sb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	856517	1
[	Be	9	25.723	ug/L	0.132	0	23	78053	2
	C	13		ug/L			82469	101960	2
	Cl	37		ug/L			4833777	4728408	3
[>	Sc	45		ug/L			1144296	1113564	1
[	V	51	33.422	ug/L	0.904	2	9450	699202	2
[	V-1	51	33.541	ug/L	1.170	3	48	694024	3
[	Cr	52	31.800	ug/L	0.772	2	27897	575530	3
[	Cr	53	32.214	ug/L	1.439	4	145	63379	4
[	Mn	55	302.716	ug/L	14.426	4	487	7255789	3
[	Co	59	26.472	ug/L	0.364	1	76	466902	2
[>	Ge	72		ug/L			608948	564014	1
[	Ni	60	31.025	ug/L	0.555	1	28	113065	2
[	Ni	62	30.271	ug/L	0.538	1	64	15829	1
[	Cu	63	37.941	ug/L	1.133	2	101	314518	4
[	Cu	65	38.519	ug/L	0.497	1	39	140639	1
[	Zn	66	288.261	ug/L	2.697	0	991	614171	1
[	Zn	67	261.929	ug/L	2.416	0	141	93473	0
[	Zn	68	287.935	ug/L	3.982	1	706	434632	2
[	As	75	36.778	ug/L	0.432	1	318	72739	0
[	As-1	75	36.080	ug/L	0.695	1	12623	80981	0
[	Se	82	77.241	ug/L	1.268	1	-10	18059	2
[	Se	78	78.624	ug/L	1.563	1	12864	54787	1
[	Mo	98	22.705	ug/L	0.142	0	28	119984	0
	Y	89		ug/L			406158	428184	1
	Kr	83		ug/L			794	895	3
[>	In	115		ug/L			1093664	1046267	1
[	Ag	107	23.078	ug/L	0.605	2	42	335921	2
[	Cd	111	29.161	ug/L	0.336	1	115	149477	1
[	Cd	114	29.428	ug/L	0.481	1	65	371000	1
[	Sb	121	24.656	ug/L	0.220	0	182	370214	1
[	Sb	123	24.536	ug/L	0.097	0	151	279606	0
[	Ba	135	82.612	ug/L	0.681	0	15	380686	0
[	Ba	137	81.449	ug/L	1.183	1	26	651636	0
[>	Tb	159		ug/L			1253683	1131806	0
[	Tl	205	25.634	ug/L	0.592	2	128	809749	2
[	Pb	208	323.481	ug/L	1.995	0	347	13340121	0
[	Bi	209		ug/L			2594753	2411089	1
[	Th	232	29.127	ug/L	0.531	1	1408	1188513	2
[	U	238	26.089	ug/L	0.518	1	31	1141090	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:46:08
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\111912.cal

rr Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	847093 ✓	1
[	Be	9	0.465	ug/L	0.028	5	23	1414	4
	C	13		ug/L			82469	128644	2
	Cl	37		ug/L			4833777	4538909	1
[>	Sc	45		ug/L			1144296	1130028 ✓	0
[	V	51	18.898	ug/L	0.440	2	9450	405292	2
[	V-1	51	18.802	ug/L	0.329	1	48	394875	1
[	Cr	52	11.159	ug/L	0.254	2	27897	222795	1
[	Cr	53	10.892	ug/L	0.185	1	145	21844	1
[	Mn	55	374.636	ug/L	2.532	0	487	9115220	0
[	Co	59	4.279	ug/L	0.056	1	76	76638	0
[>	Ge	72		ug/L			608948	541802 ✓	0
[	Ni	60	11.095	ug/L	0.131	1	28	38852	0
[	Ni	62	12.279	ug/L	0.523	4	64	6201	3
[	Cu	63	43.027	ug/L	0.977	2	101	342545	2
[	Cu	65	43.268	ug/L	0.558	1	39	151758	1
[	Zn	66	491.048	ug/L	7.364	1	991	1004376	1
[	Zn	67	453.579	ug/L	5.379	1	141	155414	1
[	Zn	68	483.759	ug/L	7.266	1	706	700980	1
[	As	75	35.087	ug/L	0.420	1	318	66678	0
[	As-1	75	36.210	ug/L	0.446	1	12623	78038	0
[	Se	82	0.460	ug/L	0.063	13	-10	94	14
[	Se	78	1.799	ug/L	0.079	4	12864	12388	0
[	Mo	98	0.513	ug/L	0.006	1	28	2630	0
	Y	89		ug/L			406158	502682	0
	Kr	83		ug/L			794	1047	3
[>	In	115		ug/L			1093664	1091644 ✓	0
[	Ag	107	0.848	ug/L	0.010	1	42	12927	1
[	Cd	111	8.919	ug/L	0.133	1	115	47778	1
[	Cd	114	8.734	ug/L	0.076	0	65	114934	1
[	Sb	121	3.271	ug/L	0.027	0	182	51405	1
[	Sb	123	3.222	ug/L	0.026	0	151	38444	1
[	Ba	135	150.472	ug/L	1.260	0	15	723479	0
[	Ba	137	149.145	ug/L	0.503	0	26	1245093	0
[>	Tb	159		ug/L			1253683	1140080 ✓	0
[	Tl	205	0.582	ug/L	0.009	1	128	18648	1
[	Pb	208	847.820	ug/L	2.294	0	347	35219172	0
[	Bi	209		ug/L			2594753	2388602	1
[	Th	232	2.601	ug/L	0.044	1	1408	108074	1
[	U	238	0.839	ug/L	0.002	0	31	36972	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:51:19
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\111912.cal

rr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	861355 ✓	0
	Be	9	0.371	ug/L	0.015	4	23	1155	4
	C	13		ug/L			82469	106151	1
	Cl	37		ug/L			4833777	4513514	1
>	Sc	45		ug/L			1144296	1141497 ✓	0
	V	51	17.488	ug/L	0.071	0	9450	379557	0
	V-1	51	17.520	ug/L	0.215	1	48	371683	0
	Cr	52	13.095	ug/L	0.322	2	27897	259316	2
	Cr	53	13.238	ug/L	0.346	2	145	26784	2
	Mn	55	581.680	ug/L	1.857	0	487	14296476	0
	Co	59	4.807	ug/L	0.058	1	76	86960	0
>	Ge	72		ug/L			608948	544447 ✓	1
	Ni	60	12.042	ug/L	0.093	0	28	42371	1
	Ni	62	13.064	ug/L	0.481	3	64	6624	2
	Cu	63	22.992	ug/L	0.361	1	101	183952	0
	Cu	65	23.431	ug/L	0.926	3	39	82572	3
	Zn	66	687.365	ug/L	9.231	1	991	1412302	0
	Zn	67	641.074	ug/L	6.558	1	141	220684	2
	Zn	68	695.816	ug/L	29.818	4	706	1012403	2
	As	75	16.279	ug/L	0.140	0	318	31237	0
	As-1	75	16.891	ug/L	0.304	1	12623	42597	0
	Se	82	0.302	ug/L	0.031	10	-10	59	13
	Se	78	1.422	ug/L	0.567	39	12864	12247	1
	Mo	98	0.417	ug/L	0.017	4	28	2151	2
	Y	89		ug/L			406158	462246	2
	Kr	83		ug/L			794	980	1
>	In	115		ug/L			1093664	1064409 ✓	1
	Ag	107	0.427	ug/L	0.013	3	42	6369	4
	Cd	111	11.572	ug/L	0.092	0	115	60410	0
	Cd	114	11.721	ug/L	0.256	2	65	150361	1
	Sb	121	0.626	ug/L	0.013	2	182	9738	0
	Sb	123	0.621	ug/L	0.006	0	151	7341	0
	Ba	135	171.694	ug/L	0.135	0	15	804935	1
	Ba	137	170.140	ug/L	0.452	0	26	1384946	1
>	Tb	159		ug/L			1253683	1134431 ✓	0
	Tl	205	0.515	ug/L	0.007	1	128	16420	0
	Pb	208	503.961	ug/L	1.485	0	347	20831100	0
	Bi	209		ug/L			2594753	2367851	1
	Th	232	4.104	ug/L	0.038	0	1408	168923	0
	U	238	0.590	ug/L	0.003	0	31	25882	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 20:55:26
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\111912.cal

rr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	853638	0
	Be	9	0.329	ug/L	0.019	5	23	1015	4
	C	13		ug/L			82469	112724	3
	Cl	37		ug/L			4833777	4431875	1
>	Sc	45		ug/L			1144296	1125286	0
	V	51	17.233	ug/L	0.168	0	9450	368854	0
	V-1	51	17.313	ug/L	0.233	1	48	362086	1
	Cr	52	12.822	ug/L	0.277	2	27897	250847	1
	Cr	53	13.124	ug/L	0.176	1	145	26181	0
	Mn	55	482.003	ug/L	8.886	1	487	11678040	1
	Co	59	4.472	ug/L	0.111	2	76	79763	2
>	Ge	72		ug/L			608948	547491	0
	Ni	60	11.467	ug/L	0.105	0	28	40576	1
	Ni	62	12.351	ug/L	0.274	2	64	6303	1
	Cu	63	25.756	ug/L	0.456	1	101	207220	0
	Cu	65	26.179	ug/L	0.339	1	39	92791	0
	Zn	66	635.856	ug/L	5.237	0	991	1313937	0
	Zn	67	557.319	ug/L	3.712	0	141	192932	1
	Zn	68	613.934	ug/L	14.396	2	706	898661	1
	As	75	11.607	ug/L	0.223	1	318	22478	0
	As-1	75	12.086	ug/L	0.281	2	12623	33879	0
	Se	82	0.387	ug/L	0.053	13	-10	78	15
	Se	78	1.446	ug/L	0.196	13	12864	12331	0
	Mo	98	0.377	ug/L	0.011	3	28	1961	2
	Y	89		ug/L			406158	463239	1
	Kr	83		ug/L			794	972	2
>	In	115		ug/L			1093664	1077409	1
	Ag	107	0.565	ug/L	0.017	2	42	8504	1
	Cd	111	9.033	ug/L	0.134	1	115	47754	1
	Cd	114	9.056	ug/L	0.265	2	65	117574	0
	Sb	121	1.103	ug/L	0.023	2	182	17230	2
	Sb	123	1.109	ug/L	0.039	3	151	13150	2
	Ba	135	153.029	ug/L	4.710	3	15	725908	1
	Ba	137	150.178	ug/L	4.308	2	26	1236915	1
>	Tb	159		ug/L			1253683	1157782	0
	Tl	205	0.485	ug/L	0.001	0	128	15798	0
	Pb	208	594.570	ug/L	2.259	0	347	25082327	0
	Bi	209		ug/L			2594753	2391975	0
	Th	232	4.362	ug/L	0.050	1	1408	183153	0
	U	238	0.593	ug/L	0.007	1	31	26576	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 20:59:35
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	806938 ✓	0
[	Be	9	50.257	ug/L	0.940	1	23	143643	2
	C	13		ug/L			82469	80508	0
	Cl	37		ug/L			4833777	4501727	1
[>	Sc	45		ug/L			1144296	1033384 ✓	1
[	V	51	48.935	ug/L	0.292	0	9450	946131	1
[	V-1	51	49.027	ug/L	0.751	1	48	941439	0
[	Cr	52	49.651	ug/L	1.015	2	27897	819859	3
[	Cr	53	49.957	ug/L	0.745	1	145	91143	0
[	Mn	55	48.110	ug/L	0.614	1	487	1070973	2
[	Co	59	49.073	ug/L	0.814	1	76	802976	0
[>	Ge	72		ug/L			608948	540928 ✓	0
[	Ni	60	48.512	ug/L	0.281	0	28	169517	0
[	Ni	62	47.818	ug/L	0.962	2	64	23948	1
[	Cu	63	48.495	ug/L	1.545	3	101	385404	2
[	Cu	65	48.080	ug/L	0.188	0	39	168352	0
[	Zn	66	48.113	ug/L	1.700	3	991	99029	2
[	Zn	67	48.813	ug/L	0.407	0	141	16809	1
[	Zn	68	50.003	ug/L	0.906	1	706	72895	1
[	As	75	48.442	ug/L	1.012	2	318	91798	1
[	As-1	75	48.951	ug/L	0.981	2	12623	101379	1
[	Se	82	47.362	ug/L	0.861	1	-10	10615	2
[	Se	78	49.227	ug/L	0.740	1	12864	37169	0
[	Mo	98	47.210	ug/L	0.096	0	28	239249	0
	Y	89		ug/L			406158	342145	1
	Kr	83		ug/L			794	835	4
[>	In	115		ug/L			1093664	958368 ✓	0
[	Ag	107	46.709	ug/L	0.877	1	42	622772	1
[	Cd	111	50.356	ug/L	0.153	0	115	236366	0
[	Cd	114	51.087	ug/L	0.162	0	65	589949	0
[	Sb	121	50.372	ug/L	0.480	0	182	692613	1
[	Sb	123	50.227	ug/L	0.404	0	151	524163	0
[	Ba	135	50.211	ug/L	0.469	0	15	211958	0
[	Ba	137	50.230	ug/L	0.261	0	26	368148	0
[>	Tb	159		ug/L			1253683	1097020 ✓	1
[	Tl	205	49.269	ug/L	0.819	1	128	1508134	0
[	Pb	208	49.254	ug/L	0.605	1	347	1968947	0
[	Bi	209		ug/L			2594753	2290142	0
[	Th	232	52.928	ug/L	3.077	5	1408	2092055	5
[	U	238	53.768	ug/L	0.811	1	31	2279153	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 21:06:27
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	783295	2
	Be	9	-0.001	ug/L	0.002	103	23	16	27
	C	13		ug/L			82469	80284	2
	Cl	37		ug/L			4833777	4565800	1
>	Sc	45		ug/L			1144296	964313	0
	V	51	0.027	ug/L	0.014	50	9450	8443	2
	V-1	51	0.002	ug/L	0.001	55	48	72	24
	Cr	52	0.087	ug/L	0.048	55	27897	24802	2
	Cr	53	0.002	ug/L	0.001	57	145	125	1
	Mn	55	0.016	ug/L	0.010	58	487	748	26
	Co	59	0.003	ug/L	0.001	51	76	102	19
>	Ge	72		ug/L			608948	504003	1
	Ni	60	0.003	ug/L	0.000	3	28	33	1
	Ni	62	-0.008	ug/L	0.019	248	64	49	16
	Cu	63	0.007	ug/L	0.002	24	101	137	7
	Cu	65	0.008	ug/L	0.004	50	39	59	22
	Zn	66	-0.258	ug/L	0.015	5	991	329	10
	Zn	67	-0.213	ug/L	0.045	20	141	49	28
	Zn	68	-0.242	ug/L	0.018	7	706	258	9
	As	75	0.065	ug/L	0.010	14	318	377	6
	As-1	75	0.724	ug/L	0.150	20	12623	11687	0
	Se	82	-0.015	ug/L	0.017	112	-10	-11	29
	Se	78	2.530	ug/L	0.531	20	12864	11877	0
	Mo	98	0.005	ug/L	0.003	51	28	48	27
	Y	89		ug/L			406158	326475	1
	Kr	83		ug/L			794	803	3
>	In	115		ug/L			1093664	917869	0
	Ag	107	0.002	ug/L	0.003	178	42	58	70
	Cd	111	-0.001	ug/L	0.005	425	115	92	22
	Cd	114	0.003	ug/L	0.004	149	65	87	54
	Sb	121	0.051	ug/L	0.008	15	182	826	12
	Sb	123	0.054	ug/L	0.006	11	151	668	8
	Ba	135	0.011	ug/L	0.008	74	15	58	57
	Ba	137	0.012	ug/L	0.007	60	26	104	47
>	Tb	159		ug/L			1253683	1018861	0
	Tl	205	0.002	ug/L	0.002	116	128	153	37
	Pb	208	0.019	ug/L	0.014	73	347	982	52
	Bi	209		ug/L			2594753	2237429	1
	Th	232	0.082	ug/L	0.006	7	1408	4143	5
	U	238	0.003	ug/L	0.002	56	31	139	47

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:10:36
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	776089 ✓	0
	Be	9	-0.003	ug/L	0.001	18	23	11	13
	C	13		ug/L			82469	85464	1
	Cl	37		ug/L			4833777	4367560	4
>	Sc	45		ug/L			1144296	991048 ✓	1
	V	51	0.020	ug/L	0.016	82	9450	8548	2
	V-1	51	0.001	ug/L	0.000	29	48	55	6
	Cr	52	0.109	ug/L	0.063	57	27897	25830	2
	Cr	53	0.044	ug/L	0.008	17	145	203	5
	Mn	55	0.022	ug/L	0.002	7	487	882	2
	Co	59	0.002	ug/L	0.001	20	76	104	6
>	Ge	72		ug/L			608948	510652 ✓	0
	Ni	60	0.024	ug/L	0.005	22	28	104	17
	Ni	62	-0.005	ug/L	0.009	182	64	51	8
	Cu	63	0.033	ug/L	0.002	6	101	335	4
	Cu	65	0.035	ug/L	0.005	14	39	147	11
	Zn	66	0.294	ug/L	0.043	14	991	1398	6
	Zn	67	0.296	ug/L	0.063	21	141	214	9
	Zn	68	0.322	ug/L	0.019	5	706	1031	2
	As	75	0.053	ug/L	0.015	28	318	361	8
	As-1	75	0.680	ug/L	0.096	14	12623	11766	0
	Se	82	0.007	ug/L	0.023	346	-10	-7	67
	Se	78	2.405	ug/L	0.378	15	12864	11974	0
	Mo	98	-0.000	ug/L	0.000	123	28	22	7
	Y	89		ug/L			406158	328267	1
	Kr	83		ug/L			794	792	2
>	In	115		ug/L			1093664	926004 ✓	1
	Ag	107	-0.001	ug/L	0.000	21	42	18	20
	Cd	111	-0.007	ug/L	0.001	19	115	66	10
	Cd	114	-0.001	ug/L	0.001	73	65	40	27
	Sb	121	0.010	ug/L	0.003	30	182	286	12
	Sb	123	0.007	ug/L	0.002	23	151	198	7
	Ba	135	0.194	ug/L	0.013	6	15	802	5
	Ba	137	0.181	ug/L	0.012	6	26	1302	4
>	Tb	159		ug/L			1253683	1023782 ✓	0
	Tl	205	0.000	ug/L	0.001	232	128	111	13
	Pb	208	0.024	ug/L	0.001	5	347	1185	4
	Bi	209		ug/L			2594753	2230720	1
	Th	232	0.027	ug/L	0.002	8	1408	2156	4
	U	238	0.000	ug/L	0.000	12	31	36	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:14:43
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	781373 ✓	1
	Be	9	23.947	ug/L	0.149	0	23	66284	1
	C	13		ug/L			82469	81870	3
	Cl	37		ug/L			4833777	4410479	3
>	Sc	45		ug/L			1144296	998283 ✓	0
	V	51	23.780	ug/L	0.794	3	9450	448333	2
	V-1	51	23.722	ug/L	0.790	3	48	440027	2
	Cr	52	24.440	ug/L	0.604	2	27897	402101	1
	Cr	53	24.237	ug/L	0.639	2	145	42781	1
	Mn	55	23.898	ug/L	0.649	2	487	514020	1
	Co	59	24.007	ug/L	0.648	2	76	379516	2
>	Ge	72		ug/L			608948	508116 ✓	1
	Ni	60	24.465	ug/L	0.205	0	28	80320	1
	Ni	62	24.730	ug/L	0.309	1	64	11661	2
	Cu	63	24.877	ug/L	0.405	1	101	185786	2
	Cu	65	25.054	ug/L	0.400	1	39	82417	1
	Zn	66	80.389	ug/L	0.599	0	991	154903	1
	Zn	67	72.154	ug/L	1.072	1	141	23285	2
	Zn	68	77.054	ug/L	1.347	1	706	105194	0
	As	75	25.883	ug/L	0.512	1	318	46194	1
	As-1	75	25.753	ug/L	0.360	1	12623	55091	0
	Se	82	75.178	ug/L	0.858	1	-10	15832	0
	Se	78	79.360	ug/L	0.535	0	12864	49716	0
	Mo	98	22.953	ug/L	0.251	1	28	109268	0
	Y	89		ug/L			406158	335069	3
	Kr	83		ug/L			794	810	4
>	In	115		ug/L			1093664	934728 ✓	1
	Ag	107	23.380	ug/L	0.119	0	42	304048	1
	Cd	111	24.076	ug/L	0.240	0	115	110265	0
	Cd	114	24.211	ug/L	0.234	0	65	272713	1
	Sb	121	23.958	ug/L	0.223	0	182	321368	1
	Sb	123	23.794	ug/L	0.330	1	151	242244	1
	Ba	135	24.381	ug/L	0.226	0	15	100381	0
	Ba	137	24.248	ug/L	0.481	1	26	173336	1
>	Tb	159		ug/L			1253683	1029020 ✓	0
	Tl	205	25.118	ug/L	0.301	1	128	721298	0
	Pb	208	25.285	ug/L	0.198	0	347	948337	1
	Bi	209		ug/L			2594753	2237271	0
	Th	232	24.973	ug/L	0.444	1	1408	926583	1
	U	238	24.648	ug/L	0.314	1	31	980101	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:18:50
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	841125 ✓	0
[	Be	9	0.348	ug/L	0.012	3	23	1057	2
	C	13		ug/L			82469	94025	0
	Cl	37		ug/L			4833777	4441284	1
[>	Sc	45		ug/L			1144296	1099501 ✓	0
[	V	51	17.731	ug/L	0.211	1	9450	370545	1
[	V-1	51	17.757	ug/L	0.095	0	48	362872	0
[	Cr	52	13.220	ug/L	0.139	1	27897	251884	0
[	Cr	53	13.345	ug/L	0.366	2	145	26009	2
[	Mn	55	429.151	ug/L	8.755	2	487	10160519	2
[	Co	59	4.406	ug/L	0.015	0	76	76788	0
[>	Ge	72		ug/L			608948	543327 ✓	1
[	Ni	60	11.856	ug/L	0.198	1	28	41639	2
[	Ni	62	12.442	ug/L	0.383	3	64	6300	2
[	Cu	63	13.442	ug/L	0.404	3	101	107407	4
[	Cu	65	13.517	ug/L	0.344	2	39	47555	1
[	Zn	66	245.771	ug/L	2.063	0	991	504531	0
[	Zn	67	228.546	ug/L	2.785	1	141	78598	2
[	Zn	68	241.862	ug/L	3.788	1	706	351759	2
[	As	75	16.134	ug/L	0.459	2	318	30896	2
[	As-1	75	16.679	ug/L	0.475	2	12623	42118	1
[	Se	82	~~0.024~~	ug/L	0.127	532	-10	-3	785
[	Se	78	0.934	ug/L	0.087	9	12864	11969	1
[	Mo	98	0.369	ug/L	0.003	0	28	1904	2
	Y	89		ug/L			406158	454408	3
	Kr	83		ug/L			794	1004	2
[>	In	115		ug/L			1093664	981555 ✓	0
[	Ag	107	~~0.192~~	ug/L	0.001	0	42	2654	0
[	Cd	111	3.245	ug/L	0.071	2	115	15700	2
[	Cd	114	3.193	ug/L	0.071	2	65	37820	1
[	Sb	121	0.386	ug/L	0.006	1	182	5592	2
[	Sb	123	0.377	ug/L	0.002	0	151	4168	1
[	Ba	135	145.395	ug/L	2.404	1	15	628546	1
[	Ba	137	143.367	ug/L	2.624	1	26	1076083	1
[>	Tb	159		ug/L			1253683	1124849 ✓	0
[	Tl	205	0.201	ug/L	0.002	1	128	6409	0
[	Pb	208	131.516	ug/L	0.761	0	347	5390532	0
[	Bi	209		ug/L			2594753	2316223	0
[	Th	232	4.282	ug/L	0.028	0	1408	174704	0
[	U	238	0.554	ug/L	0.012	2	31	24105	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:22:58
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	837881 ✓	0
[	Be	9	0.361	ug/L	0.022	6	23	1092	6
	C	13		ug/L			82469	92750	1
	Cl	37		ug/L			4833777	4513685	3
[>	Sc	45		ug/L			1144296	1101892 ✓	0
|	V	51	18.204	ug/L	0.279	1	9450	381013	1
|	V-1	51	18.187	ug/L	0.287	1	48	372458	1
|	Cr	52	14.352	ug/L	0.268	1	27897	271729	0
|	Cr	53	14.326	ug/L	0.304	2	145	27969	1
|	Mn	55	292.700	ug/L	8.610	2	487	6943834	2
[	Co	59	4.572	ug/L	0.086	1	76	79841	1
[>	Ge	72		ug/L			608948	546152 ✓	1
|	Ni	60	12.721	ug/L	0.291	2	28	44887	0
|	Ni	62	13.553	ug/L	0.377	2	64	6892	1
|	Cu	63	10.576	ug/L	0.247	2	101	84921	0
|	Cu	65	10.705	ug/L	0.090	0	39	37876	2
|	Zn	66	117.303	ug/L	3.150	2	991	242466	1
|	Zn	67	113.691	ug/L	2.043	1	141	39358	2
|	Zn	68	118.320	ug/L	1.714	1	706	173278	1
|	As	75	5.063	ug/L	0.094	1	318	9940	0
|	As-1	75	5.332	ug/L	0.173	3	12623	21235	0
|	Se	82	~0.040	ug/L	0.085	214	-10	0	5140
|	Se	78	0.997	ug/L	0.321	32	12864	12062	0
[	Mo	98	0.288	ug/L	0.006	2	28	1501	3
	Y	89		ug/L			406158	476013	1
	Kr	83		ug/L			794	1021	4
[>	In	115		ug/L			1093664	975207 ✓	0
|	Ag	107	~ 0.092	ug/L	0.002	1	42	1284	1
|	Cd	111	0.954	ug/L	0.016	1	115	4658	2
|	Cd	114	0.864	ug/L	0.006	0	65	10210	0
|	Sb	121	~ 0.161	ug/L	0.004	2	182	2415	1
|	Sb	123	0.156	ug/L	0.005	3	151	1794	3
|	Ba	135	104.816	ug/L	0.831	0	15	450205	0
[	Ba	137	103.667	ug/L	1.896	1	26	773063	1
[>	Tb	159		ug/L			1253683	1125753 ✓	1
|	Tl	205	~ 0.127	ug/L	0.002	1	128	4095	0
|	Pb	208	27.517	ug/L	0.279	1	347	1128944	0
|	Bi	209		ug/L			2594753	2323651	0
|	Th	232	4.590	ug/L	0.085	1	1408	187344	0
[	U	238	0.721	ug/L	0.011	1	31	31401	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:27:05
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	820086	0
	Be	9	0.384	ug/L	0.020	5	23	1136	5
	C	13		ug/L			82469	87423	2
	Cl	37		ug/L			4833777	4391020	1
>	Sc	45		ug/L			1144296	1144022	1
	V	51	20.032	ug/L	0.292	1	9450	434322	0
	V-1	51	20.105	ug/L	0.309	1	48	427429	0
	Cr	52	13.942	ug/L	0.168	1	27897	274869	1
	Cr	53	14.235	ug/L	0.257	1	145	28855	1
	Mn	55	223.984	ug/L	1.732	0	487	5517524	1
	Co	59	4.527	ug/L	0.083	1	76	82067	0
>	Ge	72		ug/L			608948	534943	1
	Ni	60	12.955	ug/L	0.435	3	28	44788	3
	Ni	62	13.681	ug/L	0.327	2	64	6815	1
	Cu	63	11.437	ug/L	0.161	1	101	89964	1
	Cu	65	11.552	ug/L	0.414	3	39	40016	2
	Zn	66	47.753	ug/L	0.580	1	991	97226	1
	Zn	67	52.363	ug/L	1.384	2	141	17820	1
	Zn	68	51.003	ug/L	1.233	2	706	73509	1
	As	75	2.372	ug/L	0.051	2	318	4711	0
	As-1	75	2.667	ug/L	0.158	5	12623	15944	0
	Se	82	-0.010	ug/L	0.053	525	-10	-11	104
	Se	78	1.305	ug/L	0.460	35	12864	11974	0
	Mo	98	0.258	ug/L	0.015	5	28	1319	4
	Y	89		ug/L			406158	478815	2
	Kr	83		ug/L			794	1021	2
>	In	115		ug/L			1093664	969800	0
	Ag	107	-0.076	ug/L	0.002	2	42	1068	1
	Cd	111	0.270	ug/L	0.013	4	115	1383	4
	Cd	114	0.162	ug/L	0.004	2	65	1951	2
	Sb	121	0.090	ug/L	0.002	2	182	1410	2
	Sb	123	0.089	ug/L	0.002	2	151	1073	1
	Ba	135	91.225	ug/L	0.803	0	15	389652	0
	Ba	137	91.154	ug/L	0.606	0	26	676018	0
>	Tb	159		ug/L			1253683	1123330	0
	Tl	205	0.116	ug/L	0.001	1	128	3764	0
	Pb	208	6.337	ug/L	0.065	1	347	259690	0
	Bi	209		ug/L			2594753	2307946	0
	Th	232	4.744	ug/L	0.060	1	1408	193147	0
	U	238	0.754	ug/L	0.004	0	31	32760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 H SWN
Sample Dil Factor: 20
Comments:
rr Pb Zn
Sample Date/Time: Monday, November 19, 2012 21:31:13
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	835930 ✓	0
[	Be	9	0.584	ug/L	0.011	1	23	1750	2
	C	13		ug/L			82469	114967	1
	Cl	37		ug/L			4833777	4431263	1
[>	Sc	45		ug/L			1144296	1137232 ✓	2
[	V	51	24.269	ug/L	0.655	2	9450	520996	1
[	V-1	51	24.321	ug/L	0.599	2	48	513887	1
[	Cr	52	15.502	ug/L	0.271	1	27897	300655	1
[	Cr	53	15.743	ug/L	0.463	2	145	31700	1
[	Mn	55	543.118	ug/L	8.896	1	487	13297078	1
[	Co	59	6.005	ug/L	0.169	2	76	108178	0
[>	Ge	72		ug/L			608948	548869 ✓	1
[	Ni	60	14.955	ug/L	0.079	0	28	53041	0
[	Ni	62	16.371	ug/L	0.522	3	64	8356	2
[	Cu	63	32.631	ug/L	0.359	1	101	263191	1
[	Cu	65	33.302	ug/L	1.085	3	39	118307	2
[	Zn	66	522.563	ug/L	10.144	1	991	1082614	0
[	Zn	67	495.516	ug/L	8.744	1	141	171959	0
[	Zn	68	519.217	ug/L	12.536	2	706	761994	1
[	As	75	25.613	ug/L	0.465	1	318	49380	0
[	As-1	75	26.350	ug/L	0.543	2	12623	60622	0
[	Se	82	0.119	ug/L	0.071	59	-10	18	90
[	Se	78	1.082	ug/L	0.228	21	12864	12169	1
[	Mo	98	0.399	ug/L	0.008	2	28	2076	2
	Y	89		ug/L			406158	524266	0
	Kr	83		ug/L			794	1164	2
[>	In	115		ug/L			1093664	1041544 ✓	2
[	Ag	107	0.478	ug/L	0.004	0	42	6972	2
[	Cd	111	8.519	ug/L	0.111	1	115	43542	1
[	Cd	114	8.294	ug/L	0.243	2	65	104103	0
[	Sb	121	0.716	ug/L	0.015	2	182	10862	0
[	Sb	123	0.707	ug/L	0.032	4	151	8155	2
[	Ba	135	170.155	ug/L	4.625	2	15	780322	1
[	Ba	137	169.690	ug/L	5.497	3	26	1350939	1
[>	Tb	159		ug/L			1253683	1138197 ✓	0
[	Tl	205	0.424	ug/L	0.001	0	128	13599	0
[	Pb	208	395.694	ug/L	1.438	0	347	16410377	0
[	Bi	209		ug/L			2594753	2326445	0
[	Th	232	12.478	ug/L	0.071	0	1408	512746	0
[	U	238	1.896	ug/L	0.026	1	31	83433	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:35:20
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	833522	1
	Be	9	0.350	ug/L	0.008	2	23	1054	1
	C	13		ug/L			82469	110148	2
	Cl	37		ug/L			4833777	4503193	2
>	Sc	45		ug/L			1144296	1112063	2
	V	51	15.421	ug/L	0.578	3	9450	326999	1
	V-1	51	15.428	ug/L	0.576	3	48	318711	1
	Cr	52	12.038	ug/L	0.588	4	27897	234331	3
	Cr	53	12.087	ug/L	0.465	3	145	23829	2
	Mn	55	752.546	ug/L	28.743	3	487	18010992	2
	Co	59	4.274	ug/L	0.142	3	76	75309	1
>	Ge	72		ug/L			608948	546727	0
	Ni	60	11.311	ug/L	0.217	1	28	39967	1
	Ni	62	11.904	ug/L	0.250	2	64	6068	1
	Cu	63	20.445	ug/L	0.545	2	101	164279	1
	Cu	65	20.529	ug/L	0.390	1	39	72666	1
	Zn	66	575.397	ug/L	6.786	1	991	1187503	1
	Zn	67	524.822	ug/L	7.954	1	141	181419	0
	Zn	68	565.333	ug/L	13.442	2	706	826458	2
	As	75	19.868	ug/L	0.306	1	318	38220	0
	As-1	75	20.527	ug/L	0.354	1	12623	49547	0
	Se	82	0.259	ug/L	0.048	18	-10	49	21
	Se	78	1.165	ug/L	0.220	18	12864	12165	0
	Mo	98	0.410	ug/L	0.017	4	28	2123	3
	Y	89		ug/L			406158	437912	1
	Kr	83		ug/L			794	950	0
>	In	115		ug/L			1093664	1037331	0
	Ag	107	0.344	ug/L	0.005	1	42	5004	1
	Cd	111	10.627	ug/L	0.054	0	115	54079	0
	Cd	114	10.759	ug/L	0.083	0	65	134534	1
	Sb	121	0.568	ug/L	0.003	0	182	8624	0
	Sb	123	0.573	ug/L	0.010	1	151	6615	1
	Ba	135	199.954	ug/L	1.615	0	15	913594	1
	Ba	137	199.532	ug/L	2.889	1	26	1582904	1
>	Tb	159		ug/L			1253683	1134299	0
	Tl	205	0.398	ug/L	0.004	1	128	12717	1
	Pb	208	382.761	ug/L	0.287	0	347	15819841	0
	Bi	209		ug/L			2594753	2355329	0
	Th	232	3.475	ug/L	0.030	0	1408	143236	1
	U	238	0.502	ug/L	0.006	1	31	22050	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:39:28
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\111912.cal

rv Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	844431	1
	Be	9	0.311	ug/L	0.003	1	23	951	0
	C	13		ug/L			82469	111786	1
	Cl	37		ug/L			4833777	4363845	2
>	Sc	45		ug/L			1144296	1113970	1
	V	51	15.493	ug/L	0.498	3	9450	329077	1
	V-1	51	15.522	ug/L	0.559	3	48	321234	1
	Cr	52	9.001	ug/L	0.154	1	27897	182400	0
	Cr	53	9.150	ug/L	0.424	4	145	18102	3
	Mn	55	518.557	ug/L	11.829	2	487	12435995	1
	Co	59	3.539	ug/L	0.162	4	76	62469	3
>	Ge	72		ug/L			608948	546307	0
	Ni	60	8.795	ug/L	0.150	1	28	31059	1
	Ni	62	9.696	ug/L	0.019	0	64	4950	0
	Cu	63	24.443	ug/L	0.395	1	101	196250	1
	Cu	65	24.532	ug/L	0.360	1	39	86769	1
	Zn	66	323.617	ug/L	3.638	1	991	667737	0
	Zn	67	306.453	ug/L	8.834	2	141	105908	2
	Zn	68	321.346	ug/L	0.570	0	706	469717	0
	As	75	28.303	ug/L	0.149	0	318	54290	0
	As-1	75	29.248	ug/L	0.200	0	12623	65737	0
	Se	82	0.220	ug/L	0.078	35	-10	40	43
	Se	78	1.394	ug/L	0.130	9	12864	12277	0
	Mo	98	0.396	ug/L	0.031	7	28	2054	7
	Y	89		ug/L			406158	452277	2
	Kr	83		ug/L			794	969	2
>	In	115		ug/L			1093664	1029139	0
	Ag	107	0.349	ug/L	0.012	3	42	5033	2
	Cd	111	8.553	ug/L	0.134	1	115	43196	0
	Cd	114	8.409	ug/L	0.073	0	65	104334	1
	Sb	121	0.913	ug/L	0.020	2	182	13642	2
	Sb	123	0.897	ug/L	0.024	2	151	10193	2
	Ba	135	147.548	ug/L	2.366	1	15	668768	1
	Ba	137	148.974	ug/L	0.414	0	26	1172457	1
>	Tb	159		ug/L			1253683	1139938	0
	Tl	205	0.317	ug/L	0.001	0	128	10204	0
	Pb	208	362.179	ug/L	2.784	0	347	15043642	0
	Bi	209		ug/L			2594753	2371934	0
	Th	232	3.193	ug/L	0.029	0	1408	132357	0
	U	238	0.509	ug/L	0.002	0	31	22456	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:44:39
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\111912.cal

nr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	843840 ✓	2
	Be	9	0.276	ug/L	0.021	7	23	844	5
	C	13		ug/L			82469	138852	1
	Cl	37		ug/L			4833777	4404529	2
>	Sc	45		ug/L			1144296	1097975 ✓	2
	V	51	12.973	ug/L	0.393	3	9450	273086	1
	V-1	51	12.972	ug/L	0.362	2	48	264637	1
	Cr	52	7.789	ug/L	0.320	4	27897	159126	1
	Cr	53	7.824	ug/L	0.271	3	145	15279	1
	Mn	55	429.079	ug/L	14.746	3	487	10139391	1
	Co	59	2.835	ug/L	0.083	2	76	49344	1
>	Ge	72		ug/L			608948	542423 ✓	1
	Ni	60	7.812	ug/L	0.157	2	28	27394	2
	Ni	62	8.454	ug/L	0.098	1	64	4293	1
	Cu	63	23.118	ug/L	0.313	1	101	184289	0
	Cu	65	23.296	ug/L	0.541	2	39	81818	2
	Zn	66	454.773	ug/L	8.145	1	991	931281	1
	Zn	67	412.717	ug/L	7.820	1	141	141588	2
	Zn	68	445.245	ug/L	10.017	2	706	645856	1
	As	75	20.495	ug/L	0.200	0	318	39110	0
	As-1	75	21.187	ug/L	0.233	1	12623	50377	0
	Se	82	0.396	ug/L	0.096	24	-10	79	26
	Se	78	1.328	ug/L	0.179	13	12864	12155	0
	Mo	98	0.398	ug/L	0.012	2	28	2049	2
	Y	89		ug/L			406158	450892	0
	Kr	83		ug/L			794	914	3
>	In	115		ug/L			1093664	1104047 ✓	0
	Ag	107	0.601	ug/L	0.011	1	42	9275	2
	Cd	111	10.831	ug/L	0.199	1	115	58655	1
	Cd	114	10.813	ug/L	0.176	1	65	143894	1
	Sb	121	5.156	ug/L	0.038	0	182	81842	0
	Sb	123	5.188	ug/L	0.065	1	151	62504	1
	Ba	135	126.086	ug/L	0.917	0	15	613155	1
	Ba	137	126.485	ug/L	1.055	0	26	1067872	0
>	Tb	159		ug/L			1253683	1127714 ✓	0
	Tl	205	0.421	ug/L	0.004	0	128	13358	0
	Pb	208	670.265	ug/L	10.618	1	347	27540349	1
	Bi	209		ug/L			2594753	2385121	0
	Th	232	2.102	ug/L	0.021	1	1408	86623	0
	U	238	0.462	ug/L	0.004	0	31	20146	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 21:48:46
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	849206 ✓	0
	Be	9	0.340	ug/L	0.005	1	23	1045	2
	C	13		ug/L			82469	101318	0
	Cl	37		ug/L			4833777	4363759	1
>	Sc	45		ug/L			1144296	1125782 ✓	0
	V	51	17.339	ug/L	0.021	0	9450	371236	0
	V-1	51	17.297	ug/L	0.033	0	48	361909	0
	Cr	52	9.310	ug/L	0.087	0	27897	189734	0
	Cr	53	9.227	ug/L	0.125	1	145	18457	0
	Mn	55	361.998	ug/L	0.562	0	487	8774999	0
	Co	59	3.225	ug/L	0.118	3	76	57564	3
>	Ge	72		ug/L			608948	541391 ✓	0
	Ni	60	9.702	ug/L	0.128	1	28	33956	2
	Ni	62	10.433	ug/L	0.365	3	64	5273	2
	Cu	63	10.081	ug/L	0.180	1	101	80257	0
	Cu	65	10.314	ug/L	0.400	3	39	36168	3
	Zn	66	143.656	ug/L	3.425	2	991	294199	1
	Zn	67	135.216	ug/L	1.326	0	141	46385	1
	Zn	68	142.254	ug/L	4.979	3	706	206371	2
	As	75	6.223	ug/L	0.089	1	318	12049	0
	As-1	75	6.551	ug/L	0.116	1	12623	23298	0
	Se	82	~0.096	ug/L	0.011	11	-10	12	19
	Se	78	1.123	ug/L	0.138	12	12864	12025	0
	Mo	98	0.338	ug/L	0.017	4	28	1740	4
	Y	89		ug/L			406158	457966	2
	Kr	83		ug/L			794	989	2
>	In	115		ug/L			1093664	988628 ✓	1
	Ag	107	~ 0.094	ug/L	0.003	3	42	1333	3
	Cd	111	1.151	ug/L	0.033	2	115	5672	1
	Cd	114	1.064	ug/L	0.029	2	65	12731	2
	Sb	121	~ 0.120	ug/L	0.004	3	182	1861	2
	Sb	123	0.121	ug/L	0.003	2	151	1437	2
	Ba	135	101.666	ug/L	2.252	2	15	442620	1
	Ba	137	100.174	ug/L	1.743	1	26	757276	1
>	Tb	159		ug/L			1253683	1128022 ✓	0
	Tl	205	~ 0.118	ug/L	0.002	1	128	3833	1
	Pb	208	17.532	ug/L	0.074	0	347	720911	0
	Bi	209		ug/L			2594753	2347779	0
	Th	232	3.702	ug/L	0.031	0	1408	151636	0
	U	238	0.582	ug/L	0.014	2	31	25399	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 21:52:56
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	806546 ✓	0
[	Be	9	50.393	ug/L	0.982	1	23	143949	1
	C	13		ug/L			82469	79192	2
	Cl	37		ug/L			4833777	4515507	2
[>	Sc	45		ug/L			1144296	1015033 ✓	0
[	V	51	49.639	ug/L	1.393	2	9450	942471	2
[	V-1	51	49.539	ug/L	1.146	2	48	934381	1
[	Cr	52	50.117	ug/L	0.776	1	27897	812432	0
[	Cr	53	49.779	ug/L	0.600	1	145	89217	1
[	Mn	55	48.843	ug/L	0.688	1	487	1067901	1
[	Co	59	49.458	ug/L	1.237	2	76	794936	1
[>	Ge	72		ug/L			608948	525835 ✓	0
[	Ni	60	49.112	ug/L	1.513	3	28	166843	3
[	Ni	62	48.994	ug/L	1.303	2	64	23852	2
[	Cu	63	47.908	ug/L	0.225	0	101	370159	0
[	Cu	65	50.007	ug/L	1.023	2	39	170205	1
[	Zn	66	49.276	ug/L	0.033	0	991	98591	0
[	Zn	67	49.937	ug/L	0.300	0	141	16714	0
[	Zn	68	50.691	ug/L	0.614	1	706	71832	1
[	As	75	49.388	ug/L	0.203	0	318	90979	0
[	As-1	75	50.259	ug/L	0.183	0	12623	100898	0
[	Se	82	48.536	ug/L	0.463	0	-10	10575	1
[	Se	78	51.703	ug/L	0.535	1	12864	37392	0
[	Mo	98	48.124	ug/L	0.768	1	28	237082	1
	Y	89		ug/L			406158	345185	4
	Kr	83		ug/L			794	819	3
[>	In	115		ug/L			1093664	942075 ✓	1
[	Ag	107	46.608	ug/L	0.756	1	42	610962	3
[	Cd	111	51.226	ug/L	0.442	0	115	236350	1
[	Cd	114	51.769	ug/L	0.930	1	65	587571	1
[	Sb	121	50.911	ug/L	1.197	2	182	687973	1
[	Sb	123	50.679	ug/L	0.567	1	151	519835	1
[	Ba	135	50.000	ug/L	0.979	1	15	207428	0
[	Ba	137	50.394	ug/L	0.437	0	26	363032	0
[>	Tb	159		ug/L			1253683	1070625 ✓	1
[	Tl	205	49.086	ug/L	0.447	0	128	1466446	1
[	Pb	208	50.101	ug/L	0.531	1	347	1954489	0
[	Bi	209		ug/L			2594753	2246742	1
[	Th	232	51.045	ug/L	0.595	1	1408	1969032	0
[	U	238	54.846	ug/L	1.377	2	31	2268435	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 21:59:48
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	753103 ✓	1
	Be	9	-0.003	ug/L	0.001	27	23	10	23
	C	13		ug/L			82469	81924	1
	Cl	37		ug/L			4833777	4452758	0
>	Sc	45		ug/L			1144296	943850 ✓	1
	V	51	0.022	ug/L	0.007	31	9450	8182	0
	V-1	51	0.000	ug/L	0.000	85	48	47	13
	Cr	52	0.084	ug/L	0.027	32	27897	24229	0
	Cr	53	0.010	ug/L	0.006	57	145	136	5
	Mn	55	0.003	ug/L	0.000	10	487	467	1
	Co	59	0.001	ug/L	0.000	15	76	73	2
>	Ge	72		ug/L			608948	497395 ✓	1
	Ni	60	0.005	ug/L	0.001	24	28	38	10
	Ni	62	-0.028	ug/L	0.016	58	64	39	17
	Cu	63	0.005	ug/L	0.002	31	101	118	7
	Cu	65	0.007	ug/L	0.004	56	39	55	21
	Zn	66	-0.283	ug/L	0.018	6	991	278	13
	Zn	67	-0.230	ug/L	0.010	4	141	43	5
	Zn	68	-0.251	ug/L	0.016	6	706	243	6
	As	75	0.079	ug/L	0.013	15	318	396	4
	As-1	75	0.722	ug/L	0.060	8	12623	11532	1
	Se	82	0.006	ug/L	0.057	956	-10	-7	168
	Se	78	2.513	ug/L	0.225	8	12864	11715	1
	Mo	98	0.005	ug/L	0.000	7	28	46	4
	Y	89		ug/L			406158	320433	2
	Kr	83		ug/L			794	803	2
>	In	115		ug/L			1093664	911858 ✓	0
	Ag	107	-0.000	ug/L	0.000	96	42	31	12
	Cd	111	-0.005	ug/L	0.001	26	115	72	8
	Cd	114	-0.001	ug/L	0.001	58	65	44	13
	Sb	121	0.049	ug/L	0.003	7	182	790	6
	Sb	123	0.050	ug/L	0.005	10	151	623	8
	Ba	135	0.002	ug/L	0.001	48	15	21	20
	Ba	137	0.004	ug/L	0.001	18	26	51	10
>	Tb	159		ug/L			1253683	993400 ✓	0
	Tl	205	0.001	ug/L	0.001	79	128	128	16
	Pb	208	0.001	ug/L	0.001	58	347	324	9
	Bi	209		ug/L			2594753	2185439	0
	Th	232	0.070	ug/L	0.006	8	1408	3626	6
	U	238	0.002	ug/L	0.000	9	31	95	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 19, 2012 22:03:58
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	811028	2
	Be	9	0.073	ug/L	0.005	7	23	229	4
	C	13		ug/L			82469	85226	1
	Cl	37		ug/L			4833777	4412259	1
>	Sc	45		ug/L			1144296	1031564	0
	V	51	3.285	ug/L	0.091	2	9450	71346	2
	V-1	51	3.283	ug/L	0.086	2	48	62975	2
	Cr	52	1.829	ug/L	0.046	2	27897	54362	0
	Cr	53	1.833	ug/L	0.009	0	145	3465	1
	Mn	55	38.631	ug/L	0.297	0	487	858459	1
	Co	59	0.678	ug/L	0.008	1	76	11147	0
>	Ge	72		ug/L			608948	527650	0
	Ni	60	1.932	ug/L	0.042	2	28	6607	1
	Ni	62	1.911	ug/L	0.048	2	64	986	2
	Cu	63	2.115	ug/L	0.064	3	101	16482	2
	Cu	65	2.121	ug/L	0.017	0	39	7278	1
	Zn	66	8.852	ug/L	0.118	1	991	18476	1
	Zn	67	9.552	ug/L	0.247	2	141	3307	2
	Zn	68	9.216	ug/L	0.197	2	706	13606	2
	As	75	0.455	ug/L	0.014	3	318	1114	2
	As-1	75	0.688	ug/L	0.053	7	12623	12173	0
	Se	82	0.039	ug/L	0.056	146	-10	-17	71
	Se	78	0.961	ug/L	0.222	23	12864	11637	0
	Mo	98	0.042	ug/L	0.001	3	28	232	2
	Y	89		ug/L			406158	364389	0
	Kr	83		ug/L			794	834	4
>	In	115		ug/L			1093664	957865	1
	Ag	107	0.017	ug/L	0.001	3	42	269	1
	Cd	111	0.063	ug/L	0.005	7	115	396	3
	Cd	114	0.048	ug/L	0.002	4	65	614	2
	Sb	121	0.012	ug/L	0.002	19	182	319	11
	Sb	123	0.010	ug/L	0.000	2	151	235	1
	Ba	135	15.446	ug/L	0.253	1	15	65173	1
	Ba	137	15.244	ug/L	0.102	0	26	111679	1
>	Tb	159		ug/L			1253683	1081262	1
	Tl	205	0.019	ug/L	0.002	8	128	675	6
	Pb	208	1.647	ug/L	0.015	0	347	65195	0
	Bi	209		ug/L			2594753	2305812	0
	Th	232	3.217	ug/L	0.039	1	1408	126453	0
	U	238	0.511	ug/L	0.005	0	31	21365	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:08:05
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	837155 ✓	0
[	Be	9	0.368	ug/L	0.018	4	23	1113	4
	C	13		ug/L			82469	98638	1
	Cl	37		ug/L			4833777	4295245	0
[>	Sc	45		ug/L			1144296	1113940 ✓	0
[	V	51	16.096	ug/L	0.107	0	9450	341652	0
[	V-1	51	16.140	ug/L	0.211	1	48	334155	0
[	Cr	52	8.585	ug/L	0.132	1	27897	175237	1
[	Cr	53	8.791	ug/L	0.335	3	145	17404	3
[	Mn	55	191.671	ug/L	0.942	0	487	4597613	1
[	Co	59	3.214	ug/L	0.062	1	76	56773	2
[>	Ge	72		ug/L			608948	540352 ✓	1
[	Ni	60	9.356	ug/L	0.247	2	28	32672	1
[	Ni	62	10.031	ug/L	0.299	2	64	5062	2
[	Cu	63	10.253	ug/L	0.265	2	101	81468	1
[	Cu	65	10.640	ug/L	0.233	2	39	37240	1
[	Zn	66	43.410	ug/L	1.377	3	991	89338	2
[	Zn	67	48.230	ug/L	1.344	2	141	16589	1
[	Zn	68	45.616	ug/L	0.626	1	706	66489	1
[	As	75	2.057	ug/L	0.030	1	318	4165	0
[	As-1	75	2.254	ug/L	0.055	2	12623	15348	0
[	Se	82	U -0.003	ug/L	0.010	344	-10	-9	21
[	Se	78	0.921	ug/L	0.124	13	12864	11896	0
[	Mo	98	0.222	ug/L	0.005	2	28	1149	3
	Y	89		ug/L			406158	474107	2
	Kr	83		ug/L			794	981	0
[>	In	115		ug/L			1093664	974858 ✓	0
[	Ag	107	U 0.093	ug/L	0.005	5	42	1301	4
[	Cd	111	0.361	ug/L	0.013	3	115	1826	2
[	Cd	114	0.231	ug/L	0.009	3	65	2767	3
[	Sb	121	U 0.015	ug/L	0.003	18	182	368	9
[	Sb	123	0.016	ug/L	0.002	9	151	301	4
[	Ba	135	76.454	ug/L	1.143	1	15	328282	1
[	Ba	137	76.283	ug/L	0.276	0	26	568704	0
[>	Tb	159		ug/L			1253683	1111722 ✓	0
[	Tl	205	U 0.090	ug/L	0.002	2	128	2921	2
[	Pb	208	8.147	ug/L	0.077	0	347	330322	0
[	Bi	209		ug/L			2594753	2318258	0
[	Th	232	16.253	ug/L	0.129	0	1408	651951	0
[	U	238	2.526	ug/L	0.017	0	31	108531	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:12:13
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	823786 ✓	1
	Be	9	0.352	ug/L	0.006	1	23	1047	1
	C	13		ug/L			82469	95854	0
	Cl	37		ug/L			4833777	4375105	4
>	Sc	45		ug/L			1144296	1070509 ✓	2
	V	51	16.727	ug/L	0.198	1	9450	340801	1
	V-1	51	16.784	ug/L	0.133	0	48	333923	2
	Cr	52	9.729	ug/L	0.576	5	27897	187254	3
	Cr	53	9.974	ug/L	0.268	2	145	18960	3
	Mn	55	191.842	ug/L	5.311	2	487	4420617	1
	Co	59	3.079	ug/L	0.091	2	76	52259	2
>	Ge	72		ug/L			608948	531333 ✓	2
	Ni	60	9.075	ug/L	0.007	0	28	31170	2
	Ni	62	10.039	ug/L	0.261	2	64	4980	0
	Cu	63	10.187	ug/L	0.018	0	101	79603	2
	Cu	65	10.360	ug/L	0.129	1	39	35660	3
	Zn	66	42.266	ug/L	0.307	0	991	85578	2
	Zn	67	46.522	ug/L	1.663	3	141	15734	1
	Zn	68	44.856	ug/L	0.682	1	706	64286	1
	As	75	2.106	ug/L	0.044	2	318	4185	1
	As-1	75	2.273	ug/L	0.108	4	12623	15124	1
	Se	82	-0.021	ug/L	0.016	78	-10	-13	27
	Se	78	0.844	ug/L	0.236	27	12864	11656	1
	Mo	98	0.236	ug/L	0.004	1	28	1198	4
	Y	89		ug/L			406158	461982	1
	Kr	83		ug/L			794	998	3
>	In	115		ug/L			1093664	965401 ✓	1
	Ag	107	0.098	ug/L	0.002	2	42	1350	1
	Cd	111	0.358	ug/L	0.029	8	115	1794	7
	Cd	114	0.214	ug/L	0.004	2	65	2547	1
	Sb	121	0.022	ug/L	0.003	12	182	464	8
	Sb	123	0.023	ug/L	0.001	2	151	377	1
	Ba	135	76.035	ug/L	1.366	1	15	323291	1
	Ba	137	75.109	ug/L	1.082	1	26	554494	1
>	Tb	159		ug/L			1253683	1097889 ✓	0
	Tl	205	0.089	ug/L	0.002	2	128	2848	2
	Pb	208	7.882	ug/L	0.096	1	347	315604	1
	Bi	209		ug/L			2594753	2294713	0
	Th	232	4.316	ug/L	0.063	1	1408	171875	1
	U	238	0.691	ug/L	0.008	1	31	29323	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:16:20
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	821754 ✓	1
	Be	9	25.724	ug/L	0.693	2	23	74884	3
	C	13		ug/L			82469	90557	1
	Cl	37		ug/L			4833777	4372799	0
>	Sc	45		ug/L			1144296	1100918 ✓	1
	V	51	40.912	ug/L	1.500	3	9450	843917	2
	V-1	51	41.144	ug/L	1.514	3	48	841484	2
	Cr	52	33.750	ug/L	1.368	4	27897	601963	2
	Cr	53	34.586	ug/L	1.461	4	145	67243	2
	Mn	55	226.304	ug/L	7.035	3	487	5362966	1
	Co	59	26.604	ug/L	0.967	3	76	463694	2
>	Ge	72		ug/L			608948	533261 ✓	0
	Ni	60	34.606	ug/L	0.888	2	28	119213	2
	Ni	62	35.190	ug/L	0.881	2	64	17387	1
	Cu	63	35.447	ug/L	0.700	1	101	277756	1
	Cu	65	36.438	ug/L	0.798	2	39	125775	1
	Zn	66	124.848	ug/L	3.667	2	991	251976	2
	Zn	67	123.346	ug/L	3.663	2	141	41678	2
	Zn	68	128.252	ug/L	1.012	0	706	183368	1
	As	75	28.051	ug/L	0.219	0	318	52523	1
	As-1	75	27.667	ug/L	0.368	1	12623	61296	1
	Se	82	76.584	ug/L	0.830	1	-10	16926	0
	Se	78	80.074	ug/L	1.100	1	12864	52545	0
	Mo	98	21.360	ug/L	0.284	1	28	106722	1
	Y	89		ug/L			406158	470723	0
	Kr	83		ug/L			794	1027	1
>	In	115		ug/L			1093664	956063 ✓	1
	Ag	107	22.819	ug/L	0.589	2	42	303471	1
	Cd	111	25.255	ug/L	0.127	0	115	118304	0
	Cd	114	25.833	ug/L	0.170	0	65	297608	0
	Sb	121	1.297	ug/L	0.013	0	182	17950	1
	Sb	123	1.299	ug/L	0.014	1	151	13653	0
	Ba	135	105.999	ug/L	2.991	2	15	446288	2
	Ba	137	105.804	ug/L	2.521	2	26	773422	1
>	Tb	159		ug/L			1253683	1099940 ✓	0
	Tl	205	24.907	ug/L	0.238	0	128	764561	0
	Pb	208	33.506	ug/L	0.489	1	347	1343105	1
	Bi	209		ug/L			2594753	2309153	0
	Th	232	28.781	ug/L	0.400	1	1408	1141247	1
	U	238	25.995	ug/L	0.415	1	31	1104889	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:20:27
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\111912.cal

Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	841287	1
	Be	9	26.002	ug/L	0.154	0	23	77488	1
	C	13		ug/L			82469	99827	1
	Cl	37		ug/L			4833777	4446907	3
>	Sc	45		ug/L			1144296	1090104	1
	V	51	39.885	ug/L	1.001	2	9450	815230	3
	V-1	51	39.987	ug/L	0.982	2	48	810112	3
	Cr	52	33.826	ug/L	0.873	2	27897	597451	1
	Cr	53	34.215	ug/L	1.359	3	145	65875	2
	Mn	55	219.620	ug/L	3.303	1	487	5154352	0
	Co	59	27.545	ug/L	1.103	4	76	475366	2
>	Ge	72		ug/L			608948	535835	1
	Ni	60	34.284	ug/L	0.819	2	28	118647	0
	Ni	62	34.956	ug/L	0.638	1	64	17356	1
	Cu	63	35.591	ug/L	0.852	2	101	280170	0
	Cu	65	36.819	ug/L	0.775	2	39	127687	0
	Zn	66	128.640	ug/L	2.907	2	991	260804	0
	Zn	67	125.395	ug/L	2.376	1	141	42573	1
	Zn	68	128.628	ug/L	3.109	2	706	184735	0
	As	75	29.712	ug/L	1.073	3	318	55863	1
	As-1	75	29.384	ug/L	1.183	4	12623	64701	1
	Se	82	80.902	ug/L	1.994	2	-10	17963	0
	Se	78	84.805	ug/L	2.498	2	12864	55236	0
	Mo	98	24.144	ug/L	0.425	1	28	121197	1
	Y	89		ug/L			406158	469973	1
	Kr	83		ug/L			794	1017	1
>	In	115		ug/L			1093664	953436	0
	Ag	107	24.153	ug/L	0.159	0	42	320385	0
	Cd	111	26.323	ug/L	0.226	0	115	122973	1
	Cd	114	26.629	ug/L	0.290	1	65	305933	0
	Sb	121	25.025	ug/L	0.380	1	182	342413	1
	Sb	123	24.903	ug/L	0.378	1	151	258599	1
	Ba	135	101.111	ug/L	0.513	0	15	424621	1
	Ba	137	102.124	ug/L	0.230	0	26	744628	1
>	Tb	159		ug/L			1253683	1105311	0
	Tl	205	25.599	ug/L	0.060	0	128	789664	0
	Pb	208	33.518	ug/L	0.371	1	347	1350154	0
	Bi	209		ug/L			2594753	2318289	0
	Th	232	42.006	ug/L	0.202	0	1408	1673263	0
	U	238	28.338	ug/L	0.009	0	31	1210377	0

VR36 : 00600

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:24:35
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	833634 ✓	1
	Be	9	0.340	ug/L	0.021	6	23	1024	5
	C	13		ug/L			82469	101767	0
	Cl	37		ug/L			4833777	4468146	1
>	Sc	45		ug/L			1144296	1096135 ✓	0
	V	51	17.369	ug/L	0.183	1	9450	362032	0
	V-1	51	17.390	ug/L	0.228	1	48	354249	0
	Cr	52	9.799	ug/L	0.092	0	27897	193051	1
	Cr	53	9.928	ug/L	0.235	2	145	19326	2
	Mn	55	168.911	ug/L	5.815	3	487	3986174	2
	Co	59	3.155	ug/L	0.054	1	76	54840	2
>	Ge	72		ug/L			608948	541100 ✓	1
	Ni	60	8.162	ug/L	0.269	3	28	28543	2
	Ni	62	9.252	ug/L	0.509	5	64	4679	4
	Cu	63	9.112	ug/L	0.243	2	101	72505	1
	Cu	65	9.333	ug/L	0.141	1	39	32717	0
	Zn	66	33.611	ug/L	0.749	2	991	69470	1
	Zn	67	37.275	ug/L	0.988	2	141	12868	1
	Zn	68	36.127	ug/L	0.804	2	706	52854	1
	As	75	1.548	ug/L	0.032	2	318	3207	0
	As-1	75	1.758	ug/L	0.045	2	12623	14455	0
	Se	82	-0.048	ug/L	0.019	39	-10	-19	20
	Se	78	1.021	ug/L	0.082	8	12864	11965	0
	Mo	98	0.219	ug/L	0.005	2	28	1137	1
	Y	89		ug/L			406158	468488	0
	Kr	83		ug/L			794	1019	2
>	In	115		ug/L			1093664	959029 ✓	1
	Ag	107	0.073	ug/L	0.002	3	42	1006	2
	Cd	111	0.250	ug/L	0.022	8	115	1276	6
	Cd	114	0.123	ug/L	0.003	2	65	1483	1
	Sb	121	0.092	ug/L	0.017	17	182	1432	16
	Sb	123	0.094	ug/L	0.015	16	151	1119	14
	Ba	135	76.344	ug/L	1.287	1	15	322442	1
	Ba	137	76.602	ug/L	0.731	0	26	561755	0
>	Tb	159		ug/L			1253683	1095905 ✓	0
	Tl	205	0.074	ug/L	0.001	1	128	2376	2
	Pb	208	6.025	ug/L	0.017	0	347	240891	0
	Bi	209		ug/L			2594753	2327114	0
	Th	232	4.310	ug/L	0.016	0	1408	171320	0
	U	238	0.637	ug/L	0.001	0	31	27004	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:28:42
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	847581	0
[	Be	9	0.254	ug/L	0.007	2	23	784	2
	C	13		ug/L			82469	108849	2
	Cl	37		ug/L			4833777	4581643	1
[>	Sc	45		ug/L			1144296	1116182	3
[	V	51	31.597	ug/L	1.606	5	9450	662470	2
[	V-1	51	31.599	ug/L	1.533	4	48	654851	2
[	Cr	52	17.535	ug/L	0.599	3	27897	330058	0
[	Cr	53	17.649	ug/L	0.343	1	145	34860	1
[	Mn	55	306.899	ug/L	9.267	3	487	7371406	1
[	Co	59	6.419	ug/L	0.258	4	76	113443	2
[>	Ge	72		ug/L			608948	529853	0
[	Ni	60	14.777	ug/L	0.237	1	28	50591	0
[	Ni	62	16.276	ug/L	0.473	2	64	8020	2
[	Cu	63	16.963	ug/L	0.128	0	101	132123	0
[	Cu	65	17.640	ug/L	0.297	1	39	60528	2
[	Zn	66	121.075	ug/L	0.847	0	991	242831	0
[	Zn	67	115.205	ug/L	0.939	0	141	38694	1
[	Zn	68	119.808	ug/L	0.317	0	706	170240	1
[	As	75	7.800	ug/L	0.119	1	318	14709	0
[	As-1	75	8.262	ug/L	0.196	2	12623	25889	0
[	Se	82	∿ 0.084	ug/L	0.034	40	-10	9	77
[	Se	78	1.395	ug/L	0.317	22	12864	11907	0
[	Mo	98	0.366	ug/L	0.006	1	28	1841	1
	Y	89		ug/L			406158	451813	0
	Kr	83		ug/L			794	938	1
[>	In	115		ug/L			1093664	962798	1
[	Ag	107	∿ 0.116	ug/L	0.003	2	42	1586	1
[	Cd	111	1.550	ug/L	0.034	2	115	7406	0
[	Cd	114	1.550	ug/L	0.030	1	65	18034	0
[	Sb	121	∿ 0.064	ug/L	0.001	0	182	1041	2
[	Sb	123	0.066	ug/L	0.004	5	151	821	3
[	Ba	135	72.816	ug/L	0.891	1	15	308751	0
[	Ba	137	73.013	ug/L	1.298	1	26	537474	0
[>	Tb	159		ug/L			1253683	1105631	0
[	Tl	205	∿ 0.153	ug/L	0.004	2	128	4844	1
[	Pb	208	64.009	ug/L	0.819	1	347	2578760	0
[	Bi	209		ug/L			2594753	2292498	0
[	Th	232	4.371	ug/L	0.026	0	1408	175271	0
[	U	238	0.572	ug/L	0.003	0	31	24476	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:32:50
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\111912.cal

rr Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	836901	0
	Be	9	0.291	ug/L	0.012	4	23	883	3
	C	13		ug/L			82469	116252	1
	Cl	37		ug/L			4833777	4406906	1
>	Sc	45		ug/L			1144296	1105395	1
	V	51	15.589	ug/L	0.176	1	9450	328605	0
	V-1	51	15.528	ug/L	0.138	0	48	318987	0
	Cr	52	10.539	ug/L	0.175	1	27897	207319	0
	Cr	53	10.370	ug/L	0.099	0	145	20351	1
	Mn	55	577.095	ug/L	9.887	1	487	13733351	0
	Co	59	3.429	ug/L	0.056	1	76	60088	0
>	Ge	72		ug/L			608948	539593	1
	Ni	60	9.516	ug/L	0.245	2	28	33183	1
	Ni	62	10.287	ug/L	0.306	2	64	5183	1
	Cu	63	14.827	ug/L	0.214	1	101	117606	0
	Cu	65	15.041	ug/L	0.395	2	39	52552	1
	Zn	66	313.741	ug/L	6.650	2	991	639368	1
	Zn	67	294.483	ug/L	0.828	0	141	100533	1
	Zn	68	315.539	ug/L	4.316	1	706	455534	0
	As	75	11.620	ug/L	0.210	1	318	22179	1
	As-1	75	12.035	ug/L	0.282	2	12623	33297	0
	Se	82	0.203	ug/L	0.070	34	-10	36	43
	Se	78	0.963	ug/L	0.343	35	12864	11900	0
	Mo	98	0.350	ug/L	0.010	2	28	1795	3
	Y	89		ug/L			406158	437752	1
	Kr	83		ug/L			794	921	2
>	In	115		ug/L			1093664	1028319	0
	Ag	107	0.197	ug/L	0.009	4	42	2852	4
	Cd	111	6.448	ug/L	0.090	1	115	32570	1
	Cd	114	6.471	ug/L	0.010	0	65	80239	0
	Sb	121	0.368	ug/L	0.007	1	182	5595	1
	Sb	123	0.352	ug/L	0.002	0	151	4078	0
	Ba	135	149.081	ug/L	0.945	0	15	675223	0
	Ba	137	148.712	ug/L	0.809	0	26	1169462	0
>	Tb	159		ug/L			1253683	1108935	1
	Tl	205	0.339	ug/L	0.012	3	128	10585	1
	Pb	208	417.376	ug/L	10.845	2	347	16859515	0
	Bi	209		ug/L			2594753	2332232	0
	Th	232	3.448	ug/L	0.062	1	1408	138919	0
	U	238	0.448	ug/L	0.009	2	31	19241	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:38:01
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\111912.cal

Tr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	831851 ✓	0
[	**Be**	**9**	**0.269**	ug/L	0.009	3	23	815	4
	C	**13**		ug/L			82469	125804	0
	Cl	**37**		ug/L			4833777	4627766	1
[>	**Sc**	**45**		ug/L			1144296	1127086 ✓	1
[	**V**	**51**	**18.685**	ug/L	0.209	1	9450	399826	2
[	**V-1**	**51**	**18.616**	ug/L	0.260	1	48	390000	2
[	**Cr**	**52**	**11.729**	ug/L	0.225	1	27897	232156	0
[	**Cr**	**53**	**11.548**	ug/L	0.099	0	145	23091	0
[	**Mn**	**55**	**722.126**	ug/L	12.524	1	487	17522845	1
[	**Co**	**59**	**3.855**	ug/L	0.074	1	76	68868	0
[>	**Ge**	**72**		ug/L			608948	537847 ✓	1
[	**Ni**	**60**	**10.080**	ug/L	0.294	2	28	35034	1
[	**Ni**	**62**	**10.887**	ug/L	0.544	5	64	5463	4
[	**Cu**	**63**	**29.073**	ug/L	1.005	3	101	229733	2
[	**Cu**	**65**	**29.076**	ug/L	0.889	3	39	101218	1
[	**Zn**	**66**	**413.338**	ug/L	10.068	2	991	839272	1
[	**Zn**	**67**	**381.063**	ug/L	10.872	2	141	129601	1
[	**Zn**	**68**	**419.271**	ug/L	14.089	3	706	603012	2
[	**As**	**75**	**16.942**	ug/L	0.345	2	318	32102	0
[	**As-1**	**75**	**17.622**	ug/L	0.468	2	12623	43419	0
[	**Se**	**82**	**0.343**	ug/L	0.062	17	-10	67	19
[	**Se**	**78**	**1.557**	ug/L	0.488	31	12864	12170	0
[	**Mo**	**98**	**0.421**	ug/L	0.011	2	28	2146	1
	Y	**89**		ug/L			406158	424497	0
	Kr	**83**		ug/L			794	911	3
[>	**In**	**115**		ug/L			1093664	1071714 ✓	0
[	**Ag**	**107**	**0.574**	ug/L	0.006	1	42	8599	1
[	**Cd**	**111**	**9.280**	ug/L	0.095	1	115	48801	0
[	**Cd**	**114**	**9.513**	ug/L	0.098	1	65	122894	1
[	**Sb**	**121**	**1.202**	ug/L	0.010	0	182	18656	0
[	**Sb**	**123**	**1.179**	ug/L	0.023	1	151	13904	1
[	**Ba**	**135**	**113.932**	ug/L	1.046	0	15	537792	0
[	**Ba**	**137**	**113.396**	ug/L	0.776	0	26	929331	0
[>	**Tb**	**159**		ug/L			1253683	1102551 ✓	1
[	**Tl**	**205**	**0.488**	ug/L	0.007	1	128	15138	0
[	**Pb**	**208**	**720.155**	ug/L	6.606	0	347	28928952	0
[	**Bi**	**209**		ug/L			2594753	2354094	0
[	**Th**	**232**	**2.388**	ug/L	0.047	1	1408	96034	0
[	**U**	**238**	**0.389**	ug/L	0.005	1	31	16603	0

VR36 : 00604

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:42:08
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	837839	1
	Be	9	0.427	ug/L	0.026	6	23	1288	1
	C	13		ug/L			82469	106383	0
	Cl	37		ug/L			4833777	4493314	0
>	Sc	45		ug/L			1144296	1112326	1
	V	51	19.985	ug/L	0.489	2	9450	421289	1
	V-1	51	20.044	ug/L	0.580	2	48	414279	2
	Cr	52	15.062	ug/L	0.075	0	27897	286563	1
	Cr	53	15.297	ug/L	0.344	2	145	30139	2
	Mn	55	745.152	ug/L	9.546	1	487	17845573	1
	Co	59	5.288	ug/L	0.009	0	76	93223	1
>	Ge	72		ug/L			608948	536964	1
	Ni	60	14.620	ug/L	0.103	0	28	50727	0
	Ni	62	15.683	ug/L	0.205	1	64	7835	2
	Cu	63	19.318	ug/L	0.725	3	101	152427	2
	Cu	65	19.799	ug/L	0.574	2	39	68827	2
	Zn	66	385.956	ug/L	9.543	2	991	782480	1
	Zn	67	355.902	ug/L	10.067	2	141	120855	1
	Zn	68	382.990	ug/L	6.702	1	706	550047	0
	As	75	17.954	ug/L	0.226	1	318	33948	0
	As-1	75	18.585	ug/L	0.248	1	12623	45111	0
	Se	82	0.128	ug/L	0.088	69	-10	19	101
	Se	78	1.182	ug/L	0.102	8	12864	11957	1
	Mo	98	0.335	ug/L	0.009	2	28	1710	2
	Y	89		ug/L			406158	470620	2
	Kr	83		ug/L			794	991	4
>	In	115		ug/L			1093664	990449	1
	Ag	107	0.307	ug/L	0.010	3	42	4265	3
	Cd	111	7.081	ug/L	0.092	1	115	34438	0
	Cd	114	7.158	ug/L	0.056	0	65	85478	0
	Sb	121	0.207	ug/L	0.004	1	182	3110	2
	Sb	123	0.201	ug/L	0.005	2	151	2300	2
	Ba	135	183.649	ug/L	3.415	1	15	801041	0
	Ba	137	182.747	ug/L	2.979	1	26	1384003	0
>	Tb	159		ug/L			1253683	1094143	0
	Tl	205	0.338	ug/L	0.009	2	128	10421	2
	Pb	208	327.013	ug/L	3.585	1	347	13036691	0
	Bi	209		ug/L			2594753	2312598	0
	Th	232	4.726	ug/L	0.031	0	1408	187446	0
	U	238	0.637	ug/L	0.004	0	31	26964	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV11
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 22:46:18
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	787973 ✓	0
	Be	9	50.025	ug/L	0.302	0	23	139614	0
	C	13		ug/L			82469	80108	2
	Cl	37		ug/L			4833777	4607310	2
>	Sc	45		ug/L			1144296	1035762 ✓	2
	V	51	47.875	ug/L	1.263	2	9450	927540	0
	V-1	51	47.947	ug/L	1.376	2	48	922440	0
	Cr	52	49.268	ug/L	1.177	2	27897	815144	1
	Cr	53	49.499	ug/L	1.582	3	145	90480	1
	Mn	55	47.496	ug/L	1.116	2	487	1059354	2
	Co	59	48.053	ug/L	2.112	4	76	787591	1
>	Ge	72		ug/L			608948	521331 ✓	0
	Ni	60	49.408	ug/L	1.603	3	28	166392	3
	Ni	62	48.045	ug/L	1.229	2	64	23191	2
	Cu	63	48.586	ug/L	0.591	1	101	372193	1
	Cu	65	48.556	ug/L	0.799	1	39	163858	1
	Zn	66	49.811	ug/L	0.160	0	991	98798	0
	Zn	67	49.865	ug/L	1.508	3	141	16547	3
	Zn	68	50.664	ug/L	0.206	0	706	71180	0
	As	75	49.692	ug/L	0.045	0	318	90753	0
	As-1	75	50.378	ug/L	0.301	0	12623	100245	0
	Se	82	48.812	ug/L	0.925	1	-10	10544	2
	Se	78	51.321	ug/L	0.756	1	12864	36879	0
	Mo	98	47.893	ug/L	0.974	2	28	233915	1
	Y	89		ug/L			406158	343402	2
	Kr	83		ug/L			794	807	5
>	In	115		ug/L			1093664	952200 ✓	0
	Ag	107	46.248	ug/L	1.194	2	42	612647	2
	Cd	111	49.233	ug/L	0.118	0	115	229610	0
	Cd	114	50.063	ug/L	0.568	1	65	574382	0
	Sb	121	49.965	ug/L	0.997	1	182	682575	1
	Sb	123	49.781	ug/L	1.022	2	151	516155	1
	Ba	135	49.255	ug/L	0.503	1	15	206578	0
	Ba	137	48.672	ug/L	1.113	2	26	354415	2
>	Tb	159		ug/L			1253683	1072511 ✓	0
	Tl	205	48.990	ug/L	0.312	0	128	1466219	0
	Pb	208	49.408	ug/L	0.419	0	347	1931086	1
	Bi	209		ug/L			2594753	2243831	0
	Th	232	50.210	ug/L	0.758	1	1408	1940352	0
	U	238	54.479	ug/L	0.276	0	31	2257837	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB11
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 22:53:10
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	741207 ✓	1
	Be	9	-0.001	ug/L	0.001	99	23	15	19
	C	13		ug/L			82469	80673	1
	Cl	37		ug/L			4833777	4249707	2
>	Sc	45		ug/L			1144296	944027 ✓	0
	V	51	0.024	ug/L	0.008	31	9450	8216	1
	V-1	51	0.002	ug/L	0.002	97	48	74	45
	Cr	52	0.087	ug/L	0.031	35	27897	24288	1
	Cr	53	0.012	ug/L	0.016	133	145	140	19
	Mn	55	0.018	ug/L	0.012	67	487	777	33
	Co	59	0.002	ug/L	0.001	53	76	98	20
>	Ge	72		ug/L			608948	490446 ✓	1
	Ni	60	0.006	ug/L	0.002	30	28	40	12
	Ni	62	-0.014	ug/L	0.024	171	64	45	23
	Cu	63	0.005	ug/L	0.002	43	101	120	13
	Cu	65	0.007	ug/L	0.001	17	39	54	5
	Zn	66	-0.270	ug/L	0.015	5	991	298	7
	Zn	67	-0.225	ug/L	0.007	3	141	44	3
	Zn	68	-0.222	ug/L	0.019	8	706	277	7
	As	75	0.085	ug/L	0.015	17	318	402	7
	As-1	75	0.755	ug/L	0.041	5	12623	11426	1
	Se	82	0.066	ug/L	0.081	123	-10	5	317
	Se	78	2.623	ug/L	0.132	5	12864	11604	1
	Mo	98	0.006	ug/L	0.004	64	28	49	33
	Y	89		ug/L			406158	316909	0
	Kr	83		ug/L			794	765	4
>	In	115		ug/L			1093664	880893 ✓	0
	Ag	107	0.002	ug/L	0.002	107	42	53	38
	Cd	111	-0.004	ug/L	0.003	74	115	76	16
	Cd	114	0.001	ug/L	0.002	151	65	64	27
	Sb	121	0.047	ug/L	0.004	7	182	745	5
	Sb	123	0.051	ug/L	0.006	12	151	610	9
	Ba	135	0.011	ug/L	0.007	58	15	55	45
	Ba	137	0.010	ug/L	0.004	37	26	85	28
>	Tb	159		ug/L			1253683	977202 ✓	0
	Tl	205	0.002	ug/L	0.002	131	128	142	39
	Pb	208	0.010	ug/L	0.008	77	347	616	43
	Bi	209		ug/L			2594753	1968599	0
	Th	232	0.064	ug/L	0.007	11	1408	3365	7
	U	238	0.002	ug/L	0.002	84	31	113	67

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 22:57:19
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	836597	1
[	**Be**	**9**	**0.485**	ug/L	0.032	6	23	1457	5
	C	**13**		ug/L			82469	128753	1
	Cl	**37**		ug/L			4833777	4595210	4
[>	**Sc**	**45**		ug/L			1144296	1131526	1
|	**V**	**51**	**25.028**	ug/L	0.969	3	9450	534321	3
|	**V-1**	**51**	**25.062**	ug/L	0.984	3	48	526911	3
|	**Cr**	**52**	**15.850**	ug/L	0.050	0	27897	305321	2
|	**Cr**	**53**	**16.033**	ug/L	0.096	0	145	32131	2
|	**Mn**	**55**	**1309.626**	ug/L	37.161	2	487	31908375	3
[	**Co**	**59**	**8.292**	ug/L	0.261	3	76	148596	2
[>	**Ge**	**72**		ug/L			608948	535004	1
|	**Ni**	**60**	**17.609**	ug/L	0.591	3	28	60856	2
|	**Ni**	**62**	**18.717**	ug/L	0.708	3	64	9303	3
|	**Cu**	**63**	**41.137**	ug/L	1.479	3	101	323290	2
|	**Cu**	**65**	**41.626**	ug/L	1.669	4	39	144104	2
|	**Zn**	**66**	**877.818**	ug/L	44.269	5	991	1771447	3
|	**Zn**	**67**	**799.366**	ug/L	34.324	4	141	270280	3
|	**Zn**	**68**	**851.794**	ug/L	33.695	3	706	1217754	2
|	**As**	**75**	**37.731**	ug/L	1.407	3	318	70754	2
|	**As-1**	**75**	**38.803**	ug/L	1.557	4	12623	81754	1
|	**Se**	**82**	**0.404**	ug/L	0.099	24	-10	80	27
|	**Se**	**78**	**1.241**	ug/L	0.458	36	12864	11941	0
[	**Mo**	**98**	**1.355**	ug/L	0.044	3	28	6812	1
	Y	**89**		ug/L			406158	472049	1
	Kr	**83**		ug/L			794	978	9
[>	**In**	**115**		ug/L			1093664	1065271	0
|	**Ag**	**107**	**0.627**	ug/L	0.016	2	42	9334	2
|	**Cd**	**111**	**18.398**	ug/L	0.261	1	115	96065	1
|	**Cd**	**114**	**18.542**	ug/L	0.684	3	65	238037	3
|	**Sb**	**121**	**0.668**	ug/L	0.012	1	182	10388	1
|	**Sb**	**123**	**0.672**	ug/L	0.004	0	151	7936	0
|	**Ba**	**135**	**365.139**	ug/L	7.458	2	15	1713137	1
[	**Ba**	**137**	**381.521**	ug/L	3.643	0	26	3107939	0
[>	**Tb**	**159**		ug/L			1253683	1112486	0
|	**Tl**	**205**	**0.866**	ug/L	0.016	1	128	27009	1
|	**Pb**	**208**	**1029.177**	ug/L	27.120	2	347	41712886	1
|	**Bi**	**209**		ug/L			2594753	2334456	0
|	**Th**	**232**	**4.043**	ug/L	0.085	2	1408	163219	1
[	**U**	**238**	**0.669**	ug/L	0.016	2	31	28788	1

VR36 : 00608

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:01:26
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	819935	1
	Be	9	0.411	ug/L	0.002	0	23	1215	1
	C	13		ug/L			82469	132285	2
	Cl	37		ug/L			4833777	4549401	4
>	Sc	45		ug/L			1144296	1109835	1
	V	51	12.026	ug/L	0.291	2	9450	256650	3
	V-1	51	12.109	ug/L	0.201	1	48	249800	2
	Cr	52	11.041	ug/L	0.054	0	27897	216807	1
	Cr	53	11.330	ug/L	0.328	2	145	22308	2
	Mn	55	1022.690	ug/L	12.215	1	487	24438806	1
	Co	59	4.604	ug/L	0.093	2	76	80969	1
>	Ge	72		ug/L			608948	537249	2
	Ni	60	10.540	ug/L	0.244	2	28	36608	4
	Ni	62	11.193	ug/L	0.069	0	64	5610	1
	Cu	63	46.042	ug/L	0.713	1	101	363389	1
	Cu	65	46.365	ug/L	1.011	2	39	161226	2
	Zn	66	1210.260	ug/L	28.240	2	991	2452817	1
	Zn	67	1039.319	ug/L	32.287	3	141	352767	0
	Zn	68	1145.499	ug/L	6.759	0	706	1644952	2
	As	75	42.032	ug/L	1.178	2	318	79116	0
	As-1	75	43.295	ug/L	1.387	3	12623	90306	0
	Se	82	0.684	ug/L	0.046	6	-10	143	4
	Se	78	1.813	ug/L	0.771	42	12864	12285	0
	Mo	98	0.701	ug/L	0.016	2	28	3553	0
	Y	89		ug/L			406158	441677	1
	Kr	83		ug/L			794	974	3
>	In	115		ug/L			1093664	1157840	0
	Ag	107	1.086	ug/L	0.026	2	42	17533	2
	Cd	111	17.195	ug/L	0.346	2	115	97587	1
	Cd	114	17.127	ug/L	0.143	0	65	238987	0
	Sb	121	2.392	ug/L	0.014	0	182	39919	0
	Sb	123	2.382	ug/L	0.047	1	151	30180	1
	Ba	135	360.871	ug/L	5.545	1	15	1840234	1
	Ba	137	378.004	ug/L	5.137	1	26	3346800	0
>	Tb	159		ug/L			1253683	1112662	0
	Tl	205	0.917	ug/L	0.011	1	128	28585	0
	Pb	208	1266.062	ug/L	10.350	0	347	51327578	0
	Bi	209		ug/L			2594753	2388887	0
	Th	232	1.997	ug/L	0.017	0	1408	81287	0
	U	238	0.409	ug/L	0.007	1	31	17593	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:05:34
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			923208	833460	0
	Be	**9**	**0.257**	ug/L	0.005	1	23	780	2
	C	**13**		ug/L			82469	105490	3
	Cl	**37**		ug/L			4833777	4564575	2
>	**Sc**	**45**		ug/L			1144296	1136862	0
	V	**51**	**29.670**	ug/L	0.294	0	9450	634850	1
	V-1	**51**	**29.694**	ug/L	0.313	1	48	627414	1
	Cr	**52**	**16.855**	ug/L	0.434	2	27897	324400	1
	Cr	**53**	**17.030**	ug/L	0.095	0	145	34279	0
	Mn	**55**	**377.784**	ug/L	12.884	3	487	9245797	2
	Co	**59**	**6.384**	ug/L	0.184	2	76	115007	2
>	**Ge**	**72**		ug/L			608948	538765	1
	Ni	**60**	**14.626**	ug/L	0.225	1	28	50915	0
	Ni	**62**	**15.428**	ug/L	0.414	2	64	7732	1
	Cu	**63**	**17.793**	ug/L	0.548	3	101	140893	2
	Cu	**65**	**18.544**	ug/L	0.032	0	39	64693	1
	Zn	**66**	**156.525**	ug/L	0.264	0	991	318973	1
	Zn	**67**	**148.708**	ug/L	2.970	1	141	50742	1
	Zn	**68**	**153.744**	ug/L	2.403	1	706	221922	0
	As	**75**	**11.912**	ug/L	0.169	1	318	22695	1
	As-1	**75**	**12.397**	ug/L	0.224	1	12623	33909	0
	Se	**82**	**0.111**	ug/L	0.082	74	-10	15	115
	Se	**78**	**1.083**	ug/L	0.372	34	12864	11944	0
	Mo	**98**	**0.383**	ug/L	0.007	1	28	1955	0
	Y	**89**		ug/L			406158	460651	1
	Kr	**83**		ug/L			794	920	4
>	**In**	**115**		ug/L			1093664	981166	1
	Ag	**107**	**0.162**	ug/L	0.006	3	42	2250	4
	Cd	**111**	**2.988**	ug/L	0.026	0	115	14453	0
	Cd	**114**	**2.944**	ug/L	0.015	0	65	34863	0
	Sb	**121**	**0.102**	ug/L	0.002	2	182	1596	0
	Sb	**123**	**0.098**	ug/L	0.002	1	151	1180	0
	Ba	**135**	**81.628**	ug/L	0.819	1	15	352797	2
	Ba	**137**	**81.109**	ug/L	0.330	0	26	608594	1
>	**Tb**	**159**		ug/L			1253683	1106667	0
	Tl	**205**	**0.217**	ug/L	0.002	0	128	6829	0
	Pb	**208**	**128.276**	ug/L	0.494	0	347	5172725	0
	Bi	**209**		ug/L			2594753	2310522	0
	Th	**232**	**4.730**	ug/L	0.032	0	1408	189736	0
	U	**238**	**0.502**	ug/L	0.003	0	31	21488	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:09:41
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\111912.cal

nr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	826565 ✓	2
[	**Be**	**9**	**0.647**	ug/L	0.012	1	23	1913	1
	C	**13**		ug/L			82469	119401	1
	Cl	**37**		ug/L			4833777	4558440	3
[>	**Sc**	**45**		ug/L			1144296	1131381 ✓	2
[	**V**	**51**	**20.815**	ug/L	0.609	2	9450	445841	1
[	**V-1**	**51**	**20.776**	ug/L	0.682	3	48	436674	1
[	**Cr**	**52**	**14.598**	ug/L	0.435	2	27897	283336	3
[	**Cr**	**53**	**14.514**	ug/L	0.473	3	145	29085	1
[	**Mn**	**55**	**2793.257**	ug/L	73.653	2	487	68021180	1
[	**Co**	**59**	**11.768**	ug/L	0.645	5	76	210768	3
[>	**Ge**	**72**		ug/L			608948	525185 ✓	1
[	**Ni**	**60**	**55.662**	ug/L	0.690	1	28	188820	0
[	**Ni**	**62**	**56.618**	ug/L	1.160	2	64	27516	0
[	**Cu**	**63**	**40.705**	ug/L	1.321	3	101	314026	1
[	**Cu**	**65**	**42.462**	ug/L	0.840	1	39	144331	0
[	**Zn**	**66**	**844.462**	ug/L	20.643	2	991	1673281	0
[	**Zn**	**67**	**771.830**	ug/L	21.624	2	141	256178	1
[	**Zn**	**68**	**851.870**	ug/L	23.754	2	706	1195688	1
[	**As**	**75**	**27.938**	ug/L	0.797	2	318	51507	1
[	**As-1**	**75**	**28.876**	ug/L	0.903	3	12623	62514	1
[	**Se**	**82**	**0.522**	ug/L	0.028	5	-10	104	5
[	**Se**	**78**	**1.947**	ug/L	0.414	21	12864	12081	0
[	**Mo**	**98**	**3.669**	ug/L	0.189	5	28	18067	3
	Y	**89**		ug/L			406158	540725	2
	Kr	**83**		ug/L			794	1069	3
[>	**In**	**115**		ug/L			1093664	997728 ✓	1
[	**Ag**	**107**	**0.426**	ug/L	0.009	2	42	5944	1
[	**Cd**	**111**	**21.622**	ug/L	0.379	1	115	105704	1
[	**Cd**	**114**	**21.765**	ug/L	0.404	1	65	261644	0
[	**Sb**	**121**	**0.823**	ug/L	0.029	3	182	11935	2
[	**Sb**	**123**	**0.807**	ug/L	0.039	4	151	8897	3
[	**Ba**	**135**	**511.879**	ug/L	18.130	3	15	2248717	2
[	**Ba**	**137**	**498.963**	ug/L	9.851	1	26	3806343	0
[>	**Tb**	**159**		ug/L			1253683	1124806 ✓	1
[	**Tl**	**205**	**0.420**	ug/L	0.012	2	128	13281	1
[	**Pb**	**208**	**411.324**	ug/L	7.681	1	347	16855240	1
[	**Bi**	**209**		ug/L			2594753	2323818	0
[	**Th**	**232**	**3.808**	ug/L	0.080	2	1408	155509	1
[	**U**	**238**	**0.862**	ug/L	0.021	2	31	37493	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:13:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	818357	1
	Be	9	0.456	ug/L	0.011	2	23	1342	2
	C	13		ug/L			82469	168120	1
	Cl	37		ug/L			4833777	4399433	0
>	Sc	45		ug/L			1144296	1064797	0
	V	51	19.316	ug/L	0.133	0	9450	390138	0
	V-1	51	19.291	ug/L	0.240	1	48	381737	0
	Cr	52	10.083	ug/L	0.195	1	27897	192221	2
	Cr	53	10.068	ug/L	0.224	2	145	19034	1
	Mn	55	32.694	ug/L	0.737	2	487	750003	2
	Co	59	2.633	ug/L	0.052	1	76	44461	1
>	Ge	72		ug/L			608948	519021	0
	Ni	60	11.746	ug/L	0.175	1	28	39396	0
	Ni	62	12.385	ug/L	0.238	1	64	5991	1
	Cu	63	27.643	ug/L	1.017	3	101	210807	2
	Cu	65	28.086	ug/L	0.331	1	39	94368	0
	Zn	66	154.918	ug/L	3.336	2	991	304093	1
	Zn	67	148.023	ug/L	1.696	1	141	48663	0
	Zn	68	155.002	ug/L	2.628	1	706	215573	2
	As	75	4.993	ug/L	0.102	2	318	9322	1
	As-1	75	5.269	ug/L	0.243	4	12623	20069	1
	Se	82	4.659	ug/L	0.010	0	-10	994	1
	Se	78	6.159	ug/L	0.552	8	12864	14053	1
	Mo	98	1.537	ug/L	0.033	2	28	7494	1
	Y	89		ug/L			406158	487589	2
	Kr	83		ug/L			794	1035	1
>	In	115		ug/L			1093664	984541	0
	Ag	107	0.313	ug/L	0.008	2	42	4327	2
	Cd	111	5.903	ug/L	0.088	1	115	28556	1
	Cd	114	5.735	ug/L	0.023	0	65	68092	0
	Sb	121	1.311	ug/L	0.028	2	182	18683	2
	Sb	123	1.315	ug/L	0.023	1	151	14226	1
	Ba	135	108.491	ug/L	0.582	0	15	470460	0
	Ba	137	107.194	ug/L	1.352	1	26	807087	1
>	Tb	159		ug/L			1253683	1104241	0
	Tl	205	0.138	ug/L	0.003	2	128	4361	1
	Pb	208	199.164	ug/L	0.592	0	347	8013564	0
	Bi	209		ug/L			2594753	2318393	0
	Th	232	1.176	ug/L	0.001	0	1408	47996	0
	U	238	16.226	ug/L	0.125	0	31	692381	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:17:56
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	846193	1
	Be	9	0.515	ug/L	0.007	1	23	1565	2
	C	13		ug/L			82469	117200	0
	Cl	37		ug/L			4833777	4429014	3
>	Sc	45		ug/L			1144296	1131289	2
	V	51	25.043	ug/L	0.498	1	9450	534548	1
	V-1	51	25.172	ug/L	0.784	3	48	529117	2
	Cr	52	25.690	ug/L	0.617	2	27897	477498	1
	Cr	53	26.122	ug/L	1.080	4	145	52220	2
	Mn	55	841.587	ug/L	8.286	0	487	20496731	1
	Co	59	8.429	ug/L	0.065	0	76	151051	1
>	Ge	72		ug/L			608948	528162	3
	Ni	60	24.376	ug/L	1.070	4	28	83101	1
	Ni	62	26.014	ug/L	0.931	3	64	12737	0
	Cu	63	20.324	ug/L	0.584	2	101	157687	1
	Cu	65	21.249	ug/L	0.665	3	39	72630	2
	Zn	66	255.041	ug/L	5.232	2	991	508773	2
	Zn	67	244.964	ug/L	8.718	3	141	81812	0
	Zn	68	254.815	ug/L	9.907	3	706	359925	0
	As	75	11.300	ug/L	0.449	3	318	21102	1
	As-1	75	11.770	ug/L	0.658	5	12623	32092	1
	Se	82	0.157	ug/L	0.023	14	-10	25	16
	Se	78	1.318	ug/L	0.704	53	12864	11823	0
	Mo	98	0.375	ug/L	0.016	4	28	1881	1
	Y	89		ug/L			406158	470999	1
	Kr	83		ug/L			794	1020	4
>	In	115		ug/L			1093664	988192	1
	Ag	107	0.223	ug/L	0.002	0	42	3102	0
	Cd	111	4.421	ug/L	0.097	2	115	21488	0
	Cd	114	4.373	ug/L	0.026	0	65	52119	1
	Sb	121	0.243	ug/L	0.005	2	182	3615	3
	Sb	123	0.232	ug/L	0.007	3	151	2638	4
	Ba	135	212.191	ug/L	1.281	0	15	923538	1
	Ba	137	212.326	ug/L	2.509	1	26	1604353	0
>	Tb	159		ug/L			1253683	1112609	0
	Tl	205	0.257	ug/L	0.001	0	128	8096	0
	Pb	208	195.823	ug/L	0.696	0	347	7938798	0
	Bi	209		ug/L			2594753	2311250	0
	Th	232	3.722	ug/L	0.014	0	1408	150362	0
	U	238	0.517	ug/L	0.004	0	31	22236	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 M SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:22:03
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	858249	2
	Be	9	0.764	ug/L	0.035	4	23	2341	2
	C	13		ug/L			82469	130526	1
	Cl	37		ug/L			4833777	4379233	3
>	Sc	45		ug/L			1144296	1163544	1
	V	51	26.431	ug/L	0.766	2	9450	579699	2
	V-1	51	26.441	ug/L	0.607	2	48	571644	1
	Cr	52	20.163	ug/L	0.726	3	27897	391506	1
	Cr	53	20.244	ug/L	0.723	3	145	41664	2
	Mn	55	2142.651	ug/L	25.894	1	487	53674890	1
	Co	59	10.489	ug/L	0.025	0	76	193329	1
>	Ge	72		ug/L			608948	543209	0
	Ni	60	25.226	ug/L	0.298	1	28	88535	1
	Ni	62	26.335	ug/L	0.428	1	64	13269	0
	Cu	63	26.224	ug/L	0.152	0	101	209352	0
	Cu	65	26.588	ug/L	0.527	1	39	93502	1
	Zn	66	264.349	ug/L	6.502	2	991	542461	1
	Zn	67	266.832	ug/L	7.220	2	141	91701	2
	Zn	68	279.272	ug/L	4.596	1	706	405978	1
	As	75	16.186	ug/L	0.116	0	318	30992	0
	As-1	75	16.587	ug/L	0.160	0	12623	41943	0
	Se	82	0.003	ug/L	0.098	3409	-10	-8	258
	Se	78	0.663	ug/L	0.211	31	12864	11823	0
	Mo	98	0.604	ug/L	0.003	0	28	3097	1
	Y	89		ug/L			406158	499502	1
	Kr	83		ug/L			794	1178	4
>	In	115		ug/L			1093664	1000739	0
	Ag	107	0.224	ug/L	0.007	2	42	3156	2
	Cd	111	4.067	ug/L	0.060	1	115	20031	1
	Cd	114	3.953	ug/L	0.046	1	65	47718	0
	Sb	121	0.148	ug/L	0.003	2	182	2296	1
	Sb	123	0.150	ug/L	0.004	2	151	1769	2
	Ba	135	410.937	ug/L	3.490	0	15	1811246	0
	Ba	137	433.396	ug/L	7.841	1	26	3316429	1
>	Tb	159		ug/L			1253683	1139062	0
	Tl	205	0.317	ug/L	0.004	1	128	10184	0
	Pb	208	160.150	ug/L	1.398	0	347	6646840	0
	Bi	209		ug/L			2594753	2342892	0
	Th	232	4.797	ug/L	0.033	0	1408	198068	0
	U	238	0.853	ug/L	0.014	1	31	37576	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 N SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:26:10
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	858337	1
	Be	9	0.672	ug/L	0.015	2	23	2063	1
	C	13		ug/L			82469	129693	1
	Cl	37		ug/L			4833777	4374834	1
>	Sc	45		ug/L			1144296	1149984	1
	V	51	22.112	ug/L	0.193	0	9450	480973	1
	V-1	51	22.034	ug/L	0.257	1	48	470867	1
	Cr	52	20.397	ug/L	0.566	2	27897	391297	3
	Cr	53	20.146	ug/L	0.522	2	145	40984	2
	Mn	55	3732.448	ug/L	64.278	1	487	92399882	0
	Co	59	12.330	ug/L	0.312	2	76	224560	1
>	Ge	72		ug/L			608948	533816	0
	Ni	60	40.509	ug/L	0.064	0	28	139699	0
	Ni	62	40.839	ug/L	0.106	0	64	20193	0
	Cu	63	38.470	ug/L	0.646	1	101	301786	2
	Cu	65	39.427	ug/L	1.028	2	39	136233	2
	Zn	66	523.459	ug/L	3.259	0	991	1054847	0
	Zn	67	500.231	ug/L	10.249	2	141	168842	1
	Zn	68	538.696	ug/L	12.706	2	706	768967	2
	As	75	38.982	ug/L	0.560	1	318	72954	0
	As-1	75	40.058	ug/L	0.560	1	12623	83882	0
	Se	82	0.273	ug/L	0.033	12	-10	51	13
	Se	78	1.218	ug/L	0.039	3	12864	11906	0
	Mo	98	0.616	ug/L	0.010	1	28	3107	2
	Y	89		ug/L			406158	498970	3
	Kr	83		ug/L			794	1119	0
>	In	115		ug/L			1093664	980198	0
	Ag	107	0.314	ug/L	0.012	3	42	4316	3
	Cd	111	8.894	ug/L	0.139	1	115	42778	1
	Cd	114	8.767	ug/L	0.231	2	65	103580	1
	Sb	121	0.366	ug/L	0.005	1	182	5314	0
	Sb	123	0.365	ug/L	0.014	3	151	4025	3
	Ba	135	519.594	ug/L	12.454	2	15	2243002	1
	Ba	137	505.594	ug/L	6.656	1	26	3789530	0
>	Tb	159		ug/L			1253683	1141518	1
	Tl	205	0.398	ug/L	0.008	2	128	12780	0
	Pb	208	244.257	ug/L	4.766	1	347	10158045	0
	Bi	209		ug/L			2594753	2343832	0
	Th	232	7.486	ug/L	0.166	2	1408	308960	0
	U	238	0.864	ug/L	0.021	2	31	38121	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 O SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:31:22
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\111912.cal

nr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			923208	820792 ✓	0
	Be	9	0.660	ug/L	0.008	1	23	1940	1
	C	13		ug/L			82469	111533	0
	Cl	37		ug/L			4833777	4427576	4
>	Sc	45		ug/L			1144296	1119666 ✓	1
	V	51	21.121	ug/L	0.341	1	9450	447656	0
	V-1	51	21.111	ug/L	0.338	1	48	439230	0
	Cr	52	15.119	ug/L	0.215	1	27897	289425	1
	Cr	53	15.130	ug/L	0.101	0	145	30010	1
	Mn	55	2165.719	ug/L	16.633	0	487	52214112	2
	Co	59	10.767	ug/L	0.309	2	76	190917	1
>	Ge	72		ug/L			608948	525163 ✓	1
	Ni	60	55.590	ug/L	0.963	1	28	188602	2
	Ni	62	55.273	ug/L	0.759	1	64	26866	1
	Cu	63	39.747	ug/L	0.581	1	101	306714	1
	Cu	65	40.700	ug/L	0.372	0	39	138372	1
	Zn	66	801.875	ug/L	6.337	0	991	1589246	1
	Zn	67	744.629	ug/L	26.363	3	141	247238	4
	Zn	68	797.948	ug/L	20.953	2	706	1120126	1
	As	75	31.379	ug/L	0.380	1	318	57829	1
	As-1	75	32.267	ug/L	0.396	1	12623	68589	1
	Se	82	0.343	ug/L	0.059	17	-10	65	20
	Se	78	1.300	ug/L	0.261	20	12864	11753	0
	Mo	98	3.231	ug/L	0.103	3	28	15917	2
	Y	89		ug/L			406158	550748	2
	Kr	83		ug/L			794	1092	1
>	In	115		ug/L			1093664	978271 ✓	0
	Ag	107	0.406	ug/L	0.003	0	42	5569	1
	Cd	111	20.073	ug/L	0.109	0	115	96241	0
	Cd	114	20.230	ug/L	0.313	1	65	238495	1
	Sb	121	0.464	ug/L	0.009	2	182	6670	1
	Sb	123	0.454	ug/L	0.006	1	151	4968	0
	Ba	135	413.306	ug/L	7.034	1	15	1780820	1
	Ba	137	433.749	ug/L	8.666	1	26	3244733	1
>	Tb	159		ug/L			1253683	1121571 ✓	0
	Tl	205	0.364	ug/L	0.002	0	128	11498	0
	Pb	208	332.023	ug/L	1.792	0	347	13568894	0
	Bi	209		ug/L			2594753	2326002	0
	Th	232	3.874	ug/L	0.008	0	1408	157747	0
	U	238	0.868	ug/L	0.004	0	31	37636	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR66 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 19, 2012 23:35:29
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			923208	843480	1
[	**Be**	**9**	**0.220**	ug/L	0.001	0	23	677	0
	C	**13**		ug/L			82469	103502	3
	Cl	**37**		ug/L			4833777	4456345	3
[>	**Sc**	**45**		ug/L			1144296	1167558	2
[	**V**	**51**	**53.555**	ug/L	1.858	3	9450	1168299	1
[	**V-1**	**51**	**53.620**	ug/L	1.806	3	48	1162716	1
[	**Cr**	**52**	**43.556**	ug/L	1.647	3	27897	815432	1
[	**Cr**	**53**	**43.848**	ug/L	1.451	3	145	90358	1
[	**Mn**	**55**	**445.518**	ug/L	6.299	1	487	11197188	1
[	**Co**	**59**	**9.172**	ug/L	0.259	2	76	169564	0
[>	**Ge**	**72**		ug/L			608948	532343	2
[	**Ni**	**60**	**38.958**	ug/L	1.275	3	28	133932	2
[	**Ni**	**62**	**40.221**	ug/L	1.379	3	64	19830	3
[	**Cu**	**63**	**43.807**	ug/L	0.627	1	101	342605	0
[	**Cu**	**65**	**44.395**	ug/L	1.362	3	39	152927	1
[	**Zn**	**66**	**235.928**	ug/L	5.157	2	991	474531	2
[	**Zn**	**67**	**223.150**	ug/L	4.525	2	141	75169	1
[	**Zn**	**68**	**230.455**	ug/L	6.001	2	706	328335	1
[	**As**	**75**	**1.684**	ug/L	0.075	4	318	3407	3
[	**As-1**	**75**	**1.864**	ug/L	0.165	8	12623	14410	0
[	**Se**	**82**	**0.287**	ug/L	0.067	23	-10	54	28
[	**Se**	**78**	**1.384**	ug/L	0.366	26	12864	11956	0
[	**Mo**	**98**	**1.497**	ug/L	0.054	3	28	7489	1
	Y	**89**		ug/L			406158	416696	1
	Kr	**83**		ug/L			794	1078	0
[>	**In**	**115**		ug/L			1093664	970327	1
[	**Ag**	**107**	**0.147**	ug/L	0.002	1	42	2021	0
[	**Cd**	**111**	**1.626**	ug/L	0.023	1	115	7828	1
[	**Cd**	**114**	**1.610**	ug/L	0.035	2	65	18873	1
[	**Sb**	**121**	**-0.005**	ug/L	0.000	9	182	95	5
[	**Sb**	**123**	**-0.006**	ug/L	0.002	26	151	70	23
[	**Ba**	**135**	**115.372**	ug/L	1.698	1	15	493033	0
[	**Ba**	**137**	**114.929**	ug/L	2.024	1	26	852734	1
[>	**Tb**	**159**		ug/L			1253683	1103176	0
[	**Tl**	**205**	**0.135**	ug/L	0.004	2	128	4258	2
[	**Pb**	**208**	**4.305**	ug/L	0.070	1	347	173328	0
[	**Bi**	**209**		ug/L			2594753	2300138	1
[	**Th**	**232**	**0.888**	ug/L	0.015	1	1408	36510	0
[	**U**	**238**	**0.612**	ug/L	0.010	1	31	26112	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV12
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 23:39:37
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	789114 ✓	2
[	Be	9	50.546	ug/L	0.975	1	23	141238	1
	C	13		ug/L			82469	81697	3
	Cl	37		ug/L			4833777	4421996	2
[>	Sc	45		ug/L			1144296	998220 ✓	1
[	V	51	48.278	ug/L	0.610	1	9450	901804	2
[	V-1	51	47.996	ug/L	1.095	2	48	890382	2
[	Cr	52	50.078	ug/L	0.768	1	27897	798303	0
[	Cr	53	49.114	ug/L	1.404	2	145	86555	2
[	Mn	55	47.477	ug/L	2.346	4	487	1020261	3
[	Co	59	47.643	ug/L	0.266	0	76	753161	1
[>	Ge	72		ug/L			608948	519061 ✓	1
[	Ni	60	48.414	ug/L	1.350	2	28	162323	2
[	Ni	62	45.873 ✓	ug/L	0.269	0	64	22048	0
[	Cu	63	47.788	ug/L	0.382	0	101	364464	1
[	Cu	65	47.532	ug/L	0.595	1	39	159695	0
[	Zn	66	47.648	ug/L	1.272	2	991	94115	1
[	Zn	67	49.690	ug/L	1.564	3	141	16413	1
[	Zn	68	48.750	ug/L	1.187	2	706	68202	1
[	As	75	49.098	ug/L	0.741	1	318	89274	1
[	As-1	75	49.490	ug/L	0.664	1	12623	98231	0
[	Se	82	48.361	ug/L	0.511	1	-10	10400	0
[	Se	78	49.864	ug/L	0.567	1	12864	35985	0
[	Mo	98	47.820	ug/L	1.377	2	28	232486	1
	Y	89		ug/L			406158	331780	2
	Kr	83		ug/L			794	813	4
[>	In	115		ug/L			1093664	932480 ✓	0
[	Ag	107	47.067	ug/L	0.802	1	42	610659	2
[	Cd	111	49.572	ug/L	0.600	1	115	226384	0
[	Cd	114	50.583	ug/L	0.312	0	65	568356	1
[	Sb	121	50.896	ug/L	0.539	1	182	680894	1
[	Sb	123	50.332	ug/L	0.146	0	151	511064	0
[	Ba	135	49.956	ug/L	0.465	0	15	205173	0
[	Ba	137	49.109	ug/L	0.036	0	26	350209	0
[>	Tb	159		ug/L			1253683	1061910 ✓	1
[	Tl	205	48.737	ug/L	0.491	1	128	1444219	1
[	Pb	208	49.523	ug/L	0.276	0	347	1916397	1
[	Bi	209		ug/L			2594753	2240888	0
[	Th	232	50.707	ug/L	0.222	0	1408	1940257	0
[	U	238	55.363	ug/L	0.585	1	31	2271659	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB12
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 19, 2012 23:46:30
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\111912.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			923208	735308✓	0
[	Be	9	-0.003	ug/L	0.002	63	23	12	33
	C	13		ug/L			82469	83051	1
	Cl	37		ug/L			4833777	4330862	3
[>	Sc	45		ug/L			1144296	924529✓	2
[	V	51	0.038	ug/L	0.011	29	9450	8291	0
[	V-1	51	0.000	ug/L	0.001	135	48	46	21
[	Cr	52	0.133	ug/L	0.042	31	27897	24439	0
[	Cr	53	0.005	ug/L	0.005	115	145	125	4
[	Mn	55	0.006	ug/L	0.001	24	487	509	3
[	Co	59	0.001	ug/L	0.000	48	76	71	5
[>	Ge	72		ug/L			608948	471493✓	0
[	Ni	60	0.002	ug/L	0.001	53	28	28	12
[	Ni	62	-0.018	ug/L	0.010	57	64	41	9
[	Cu	63	0.004	ug/L	0.001	12	101	108	2
[	Cu	65	0.007	ug/L	0.003	45	39	51	17
[	Zn	66	-0.278	ug/L	0.006	1	991	273	4
[	Zn	67	-0.241	ug/L	0.014	6	141	38	10
[	Zn	68	-0.246	ug/L	0.008	3	706	237	3
[	As	75	0.074	ug/L	0.022	29	318	368	8
[	As-1	75	0.917	ug/L	0.120	13	12623	11244	0
[	Se	82	0.017	ug/L	0.103	605	-10	-4	429
[	Se	78	3.234	ug/L	0.451	13	12864	11433	0
[	Mo	98	0.003	ug/L	0.002	67	28	36	26
	Y	89		ug/L			406158	311692	3
	Kr	83		ug/L			794	767	1
[>	In	115		ug/L			1093664	865381✓	1
[	Ag	107	0.000	ug/L	0.000	389	42	34	10
[	Cd	111	-0.003	ug/L	0.001	25	115	79	4
[	Cd	114	-0.001	ug/L	0.000	44	65	40	12
[	Sb	121	0.048	ug/L	0.002	3	182	737	2
[	Sb	123	0.047	ug/L	0.000	0	151	565	1
[	Ba	135	0.006	ug/L	0.001	9	15	33	6
[	Ba	137	0.005	ug/L	0.001	20	26	54	13
[>	Tb	159		ug/L			1253683	963085 ✓	0
[	Tl	205	-0.001	ug/L	0.001	116	128	81	23
[	Pb	208	0.001	ug/L	0.001	111	347	288	8
[	Bi	209		ug/L			2594753	1942488	0
[	Th	232	0.063	ug/L	0.006	9	1408	3258	5
[	U	238	0.001	ug/L	0.000	12	31	71	8

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.20.12 **Analyst:** MJT **Page:** 1 **of** 6

All corrections made by analyst unless otherwise noted. 11.21.12 MJT

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2991-1
		3			↓ -2
		4			~~2992-6~~ 2993-15
		5			~~2933-15~~ 2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{62}Ni: high
		LR200			Ag 110%
		LR300			^{137}Ba high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VS84 MB	REN	2	
		MBSPK	↓	↓	↓
		B	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.20.12 **Analyst:** MJT **Page:** 2 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS84 C	REN	2	
	✓	ADUP		20	use 2x
		A			
		ASPK			
		ADUP		2 ✓	
		A			
		ASPK		✓	
		CCV3			Al high; Mo, Ag high
		CCB3			
		VR36 A-L	SWN	500 ✓	Pb
		A		100	
		ADUP		✓	
		ASPK			STL
		B			Pb, Zn
		C			
		D			
		H			
		I			
		J			
		CCV4			
		CCB4			
		VR36 K	SWN	100	Pb Zn
		VR37 D			Pb
		E			Pb Zn

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.20.12 **Analyst:** MJJ **Page:** 3 **of** 6

All corrections made by analyst unless otherwise noted. 11.21.12 MJJ

Edit Label	Delete Data	ARI Sample ID		Prep Code	Dilution	Comments
		VR37	F	SWN	100	Pb Zn
			G			
			H			
			J			
			N			Zn
			O			Pb Zn
		VR34	G			Zn
		CCV5				
		CCB5				End cup
		VR67	MB	REN	2	
			MBSPK			No mineral spike (CAF)
			ADUP			rr Mn 1/20
			A			
			ASPK			No mineral spike
			B			
		VR68	B			
			C			rr Cr (Sc noisy)
			E			
			F			
		CCV6				Al high
		CCB6				
		VR68	MB1	REN	2	
			MB2			Cu 1.2ppb (CAF)
			MB2SPK			

11-21-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP / (ICP-MS) / GFA / CVA Analysis Date: 11.20.12

M2 Nexion	Analyst MH 11.21.12	Peer AH 11-21-12	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	✓	✓	see log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	see log
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	VR67
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	VR68
Method Blanks	✓	✓	VS04, VR68, VT12, VR88
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: VR67, VR68, VR88 VS04, VT12

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, November 20, 2012 09:38:58
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1307
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	4103.2	4103.210	51.410	1.3	Standard
	Mg	24.0	34617.4	34617.354	135.354	0.4	Standard
	In	114.9	79402.5	79402.497	332.550	0.4	Standard
	Pb	208.0	33456.5	33456.493	83.251	0.2	Standard
	U	238.1	56832.3	56832.274	328.557	0.6	Standard
⌈	CeO	155.9	1775.3	0.022	0.001	3.1	Standard
| >	Ce	139.9	80075.0	80074.956	430.400	0.5	Standard
⌊	Ce++	70.0	1039.6	0.013	0.000	1.5	Standard
	Bkgd	220.0	0.1	0.100	0.091	91.3	Standard

Current Conditions File Data

Current Value	Description
1.09	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
1250.00	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

Optimization Summary

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

Start Time: 11/20/2012 9:27:09 AM
End Time: 11/20/2012 9:33:43 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 (0.7/0.697)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.704)

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/20/2012 9:34:27 AM
End Time: 11/20/2012 9:38:38 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -11.59

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/20/2012 9:38:57 AM
End Time: 11/20/2012 9:41:32 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4103.21
Obtained Intensity (Mg 23.985): 34617.35
Obtained Intensity (In 114.904): 79402.50
Obtained Intensity (Pb 207.977): 33456.49
Obtained Intensity (U 238.05): 56832.27
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=1775.32 / 80074.96)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1039.60 / 80074.96)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:12:37
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				960865	2
	Be	9		ug/L				11	26
	C	13		ug/L				80899	2
	Cl	37		ug/L				4140238	0
>	Sc	45		ug/L				1070141	2
	Al	27		ug/L				6167	1
	V	51		ug/L				8787	1
	V-1	51		ug/L				45	9
	Cr	52		ug/L				25797	2
	Cr	53		ug/L				119	11
	Fe	54		ug/L				71682	1
	Fe	57		ug/L				9627	2
	Mn	55		ug/L				492	4
	Co	59		ug/L				78	13
>	Ge	72		ug/L				580442	0
	Ni	60		ug/L				28	4
	Ni	62		ug/L				309	2
	Cu	63		ug/L				301	4
	Cu	65		ug/L				43	20
	Zn	66		ug/L				184	1
	Zn	67		ug/L				30	16
	Zn	68		ug/L				181	7
	As	75		ug/L				180	8
	As-1	75		ug/L				11796	0
	Se	82		ug/L				0	7481
	Se	78		ug/L				11951	0
	Mo	98		ug/L				6	23
	Y	89		ug/L				356764	0
	Kr	83		ug/L				473	4
>	In	115		ug/L				987844	0
	Ag	107		ug/L				15	20
	Cd	111		ug/L				64	3
	Cd	114		ug/L				38	15
	Sb	121		ug/L				27	9
	Sb	123		ug/L				21	28
	Ba	135		ug/L				16	23
	Ba	137		ug/L				32	18
>	Tb	159		ug/L				1186851	1
	Tl	205		ug/L				48	10
	Pb	208		ug/L				169	8
	Bi	209		ug/L				2692417	1
	Th	232		ug/L				61	15
	U	238		ug/L				6	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:16:53
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			960865	978539 ✓	0
	Be	9	0.200	ug/L	0.020	10	11	657	10
	C	13		ug/L			80899	83851	0
	Cl	37		ug/L			4140238	3991480	2
>	Sc	45		ug/L			1070141	1083470 ✓	1
	Al	27	20.000	ug/L	0.443	2	6167	681893	1
	V	51	0.200	ug/L	0.017	8	8787	13143	1
	V-1	51	0.200	ug/L	0.006	2	45	4330	1
	Cr	52	0.500	ug/L	0.055	10	25797	34909	1
	Cr	53	0.500	ug/L	0.021	4	119	1126	3
	Fe	54	20.000	ug/L	2.199	10	71682	96630	1
	Fe	57	20.000	ug/L	0.788	3	9627	18883	2
	Mn	55	0.500	ug/L	0.010	1	492	12164	2
	Co	59	0.200	ug/L	0.006	3	78	3657	4
>	Ge	72		ug/L			580442	588601 ✓	1
	Ni	60	0.500	ug/L	0.005	0	28	2255	1
	Ni	62	0.500	ug/L	0.030	5	309	615	2
	Cu	63	0.500	ug/L	0.008	1	301	4725	0
	Cu	65	0.500	ug/L	0.019	3	43	2072	2
	Zn	66	4.000	ug/L	0.054	1	184	10211	2
	Zn	67	4.000	ug/L	0.156	3	30	1487	3
	Zn	68	4.000	ug/L	0.014	0	181	6845	1
	As	75	0.200	ug/L	0.020	10	180	598	7
	As-1	75	0.200	ug/L	0.236	117	11796	12122	0
	Se	82	0.500	ug/L	0.028	5	0	99	6
	Se	78	0.500	ug/L	14.822	2964	11951	12123	0
	Mo	98	0.200	ug/L	0.003	1	6	929	2
	Y	89		ug/L			356764	351045	1
	Kr	83		ug/L			473	489	2
>	In	115		ug/L			987844	990466 ✓	0
	Ag	107	0.200	ug/L	0.002	1	15	2488	1
	Cd	111	0.100	ug/L	0.003	2	64	559	2
	Cd	114	0.100	ug/L	0.002	1	38	1302	2
	Sb	121	0.200	ug/L	0.008	3	27	2835	3
	Sb	123	0.200	ug/L	0.002	1	21	2110	1
	Ba	135	0.500	ug/L	0.002	0	16	2307	0
	Ba	137	0.500	ug/L	0.015	2	32	3804	2
>	Tb	159		ug/L			1186851	1181632 ✓	0
	Tl	205	0.200	ug/L	0.002	0	48	7450	0
	Pb	208	0.100	ug/L	0.001	1	169	5630	0
	Bi	209		ug/L			2692417	2678493	0
	Th	232	0.200	ug/L	0.013	6	61	6206	7
	U	238	0.200	ug/L	0.002	0	6	8808	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:21:09
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	979439	2
	Be	9	10.000	ug/L	0.183	1	11	32106	1
	C	13		ug/L			80899	82939	1
	Cl	37		ug/L			4140238	4000819	0
>	Sc	45		ug/L			1070141	1078111	0
	Al	27	1000.014	ug/L	12.033	1	6167	34844049	0
	V	51	10.000	ug/L	0.096	0	8787	209928	0
	V-1	51	10.000	ug/L	0.129	1	45	202053	0
	Cr	52	10.000	ug/L	0.048	0	25797	197649	0
	Cr	53	10.000	ug/L	0.184	1	119	19816	1
	Fe	54	1000.007	ug/L	18.064	1	71682	1291621	0
	Fe	57	999.997	ug/L	10.471	1	9627	460344	0
	Mn	55	10.000	ug/L	0.142	1	492	229658	1
	Co	59	10.000	ug/L	0.178	1	78	175750	1
>	Ge	72		ug/L			580442	589320	0
	Ni	60	9.995	ug/L	0.121	1	28	37539	0
	Ni	62	9.996	ug/L	0.245	2	309	5459	2
	Cu	63	9.999	ug/L	0.101	1	301	84644	0
	Cu	65	9.998	ug/L	0.102	1	43	37603	0
	Zn	66	9.822	ug/L	0.199	2	184	22366	2
	Zn	67	10.029	ug/L	0.083	0	30	3754	0
	Zn	68	9.935	ug/L	0.077	0	181	16098	1
	As	75	10.000	ug/L	0.104	1	180	20866	0
	As-1	75	10.002	ug/L	0.074	0	11796	32402	0
	Se	82	10.002	ug/L	0.125	1	0	2156	1
	Se	78	10.024	ug/L	0.140	1	11951	17350	0
	Mo	98	10.000	ug/L	0.034	0	6	46548	0
	Y	89		ug/L			356764	355252	3
	Kr	83		ug/L			473	477	10
>	In	115		ug/L			987844	994850	1
	Ag	107	10.000	ug/L	0.060	0	15	122282	0
	Cd	111	10.000	ug/L	0.267	2	64	49945	1
	Cd	114	10.000	ug/L	0.187	1	38	124043	1
	Sb	121	10.000	ug/L	0.091	0	27	140220	0
	Sb	123	10.000	ug/L	0.243	2	21	105918	1
	Ba	135	9.999	ug/L	0.051	0	16	43500	1
	Ba	137	10.000	ug/L	0.117	1	32	75419	0
>	Tb	159		ug/L			1186851	1201059	0
	Tl	205	10.000	ug/L	0.051	0	48	359030	0
	Pb	208	10.000	ug/L	0.036	0	169	468337	0
	Bi	209		ug/L			2692417	2682304	0
	Th	232	10.001	ug/L	0.072	0	61	395723	1
	U	238	10.000	ug/L	0.036	0	6	438323	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:25:38
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			960865	945717 ✓	0
Be	9	20.118	ug/L	0.171	0	11	63879	0
C	13		ug/L			80899	82003	2
Cl	37		ug/L			4140238	4367731	3
> Sc	45		ug/L			1070141	1067841 ✓	0
Al	27	1992.457	ug/L	20.293	1	6167	67741063	1
V	51	20.000	ug/L	0.399	1	8787	407182	2
V-1	51	20.012	ug/L	0.259	1	45	401504	2
Cr	52	19.923	ug/L	0.170	0	25797	359368	1
Cr	53	19.964	ug/L	0.307	1	119	38792	0
Fe	54	1994.695	ug/L	28.441	1	71682	2455441	0
Fe	57	2002.330	ug/L	92.205	4	9627	907387	3
Mn	55	20.050	ug/L	0.554	2	492	460142	1
Co	59	19.990	ug/L	0.275	1	78	347255	1
> Ge	72		ug/L			580442	579817 ✓	0
Ni	60	19.981	ug/L	0.328	1	28	73525	1
Ni	62	19.970	ug/L	0.869	4	309	10361	3
Cu	63	19.954	ug/L	0.723	3	301	164383	3
Cu	65	20.032	ug/L	0.323	1	43	74556	1
Zn	66	19.883	ug/L	0.325	1	184	43481	1
Zn	67	20.018	ug/L	0.393	1	30	7366	2
Zn	68	19.969	ug/L	0.092	0	181	31490	0
As	75	19.957	ug/L	0.151	0	180	40450	0
As-1	75	19.996	ug/L	0.181	0	11796	51921	0
Se	82	19.986	ug/L	0.522	2	0	4227	2
Se	78	20.146	ug/L	0.369	1	11951	22561	0
Mo	98	19.984	ug/L	0.460	2	6	91216	2
Y	89		ug/L			356764	354872	0
Kr	83		ug/L			473	497	9
> In	115		ug/L			987844	993955 ✓	0
Ag	107	19.881	ug/L	0.500	2	15	237222	2
Cd	111	19.878	ug/L	0.372	1	64	96795	2
Cd	114	19.904	ug/L	0.275	1	38	241990	1
Sb	121	19.923	ug/L	0.073	0	27	274867	0
Sb	123	19.984	ug/L	0.173	0	21	210807	0
Ba	135	19.978	ug/L	0.128	0	16	86450	0
Ba	137	19.975	ug/L	0.123	0	32	149748	0
> Tb	159		ug/L			1186851	1180844 ✓	0
Tl	205	19.982	ug/L	0.108	0	48	702830	1
Pb	208	20.007	ug/L	0.211	1	169	922310	0
Bi	209		ug/L			2692417	2620576	0
Th	232	20.102	ug/L	0.255	1	61	798214	0
U	238	20.086	ug/L	0.096	0	6	880832	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:30:17
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			960865	925854	1
[	Be	9	49.818	ug/L	0.201	0	11	152080	1
	C	13		ug/L			80899	78163	2
	Cl	37		ug/L			4140238	4361895	1
[>	Sc	45		ug/L			1070141	1064145	2
[	Al	27	4985.303	ug/L	81.155	1	6167	166413965	1
[	V	51	49.883	ug/L	1.830	3	8787	986873	1
[	V-1	51	49.829	ug/L	2.008	4	45	978829	1
[	Cr	52	49.964	ug/L	1.128	2	25797	856189	0
[	Cr	53	49.786	ug/L	1.877	3	119	94176	2
[	Fe	54	4964.378	ug/L	115.842	2	71682	5779099	0
[	Fe	57	5008.381	ug/L	157.853	3	9627	2265895	1
[	Mn	55	49.706	ug/L	1.519	3	492	1103363	0
[	Co	59	49.619	ug/L	1.836	3	78	826884	1
[>	Ge	72		ug/L			580442	559686	2
[	Ni	60	49.865	ug/L	1.957	3	28	174656	3
[	Ni	62	50.136	ug/L	1.370	2	309	24985	0
[	Cu	63	50.072	ug/L	1.368	2	301	400504	1
[	Cu	65	49.910	ug/L	0.919	1	43	177595	0
[	Zn	66	49.891	ug/L	2.167	4	184	103882	1
[	Zn	67	49.760	ug/L	0.847	1	30	17226	0
[	Zn	68	49.883	ug/L	1.477	2	181	74791	1
[	As	75	50.071	ug/L	1.213	2	180	98369	1
[	As-1	75	50.149	ug/L	1.432	2	11796	109971	1
[	Se	82	50.015	ug/L	1.199	2	0	10223	0
[	Se	78	50.311	ug/L	1.943	3	11951	37936	0
[	Mo	98	50.214	ug/L	2.271	4	6	225916	2
	Y	89		ug/L			356764	351845	1
	Kr	83		ug/L			473	517	2
[>	In	115		ug/L			987844	961901	1
[	Ag	107	49.866	ug/L	0.791	1	15	568155	1
[	Cd	111	49.792	ug/L	1.074	2	64	229725	0
[	Cd	114	49.832	ug/L	0.609	1	38	576556	0
[	Sb	121	49.996	ug/L	1.110	2	27	667059	0
[	Sb	123	49.973	ug/L	0.572	1	21	508724	0
[	Ba	135	49.990	ug/L	0.826	1	16	209081	0
[	Ba	137	50.044	ug/L	0.651	1	32	364598	0
[>	Tb	159		ug/L			1186851	1168867	1
[	Tl	205	49.825	ug/L	0.772	1	48	1704400	0
[	Pb	208	49.730	ug/L	1.059	2	169	2208851	0
[	Bi	209		ug/L			2692417	2547167	1
[	Th	232	50.038	ug/L	1.326	2	61	1973621	0
[	U	238	50.542	ug/L	1.404	2	6	2318983	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:36:36
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			960865	915709 ✓	2
[	Be	9	99.847	ug/L	2.863	2	11	299775	0
	C	13		ug/L			80899	81737	2
	Cl	37		ug/L			4140238	4449868	0
[>	Sc	45		ug/L			1070141	1052511 ✓	2
[	Al	27	9996.434	ug/L	246.819	2	6167	329591704	0
[	V	51	100.850	ug/L	2.749	2	8787	2023339	4
[	V-1	51	100.922	ug/L	2.105	2	45	2024639	4
[	Cr	52	100.054	ug/L	1.133	1	25797	1673569	1
[	Cr	53	100.310	ug/L	2.903	2	119	189529	1
[	Fe	54	10057.952	ug/L	245.556	2	71682	11733104	0
[	Fe	57	10070.524	ug/L	267.263	2	9627	4604989	1
[	Mn	55	101.314	ug/L	1.565	1	492	2326196	0
[	Co	59	100.258	ug/L	4.049	4	78	1666735	2
[>	Ge	72		ug/L			580442	559083 ✓	2
[	Ni	60	100.151	ug/L	2.770	2	28	352107	0
[	Ni	62	99.994	ug/L	4.351	4	309	49455	1
[	Cu	63	99.441	ug/L	3.237	3	301	779556	0
[	Cu	65	99.798	ug/L	2.987	2	43	352226	0
[	Zn	66	99.350	ug/L	3.634	3	184	202123	1
[	Zn	67	99.825	ug/L	3.625	3	30	34279	1
[	Zn	68	99.188	ug/L	4.400	4	181	144452	2
[	As	75	99.696	ug/L	2.551	2	180	193501	0
[	As-1	75	99.652	ug/L	2.851	2	11796	204808	0
[	Se	82	99.674	ug/L	2.644	2	0	20132	1
[	Se	78	99.517	ug/L	3.681	3	11951	62872	0
[	Mo	98	100.204	ug/L	2.357	2	6	453544	0
	Y	89		ug/L			356764	347660	1
	Kr	83		ug/L			473	597	2
[>	In	115		ug/L			987844	946925 ✓	0
[	Ag	107	100.118	ug/L	2.038	2	15	1127434	1
[	Cd	111	99.863	ug/L	1.417	1	64	451517	1
[	Cd	114	99.712	ug/L	0.585	0	38	1124961	0
[	Sb	121	100.202	ug/L	0.904	0	27	1325263	0
[	Sb	123	99.879	ug/L	1.341	1	21	996963	1
[	Ba	135	100.341	ug/L	0.635	0	16	417940	1
[	Ba	137	100.076	ug/L	1.139	1	32	719602	0
[>	Tb	159		ug/L			1186851	1154703 ✓	0
[	Tl	205	101.487	ug/L	0.215	0	48	3609088	0
[	Pb	208	100.639	ug/L	1.084	1	169	4512916	0
[	Bi	209		ug/L			2692417	2422093	0
[	Th	232	101.773	ug/L	1.218	1	61	4215905	1
[	U	238	99.990	ug/L	1.503	1	6	4532127	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:43:35
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:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	923483 ✓	0
	Be	9	0.004	ug/L	0.004	83	11	24	45
	C	13		ug/L			80899	78311	2
	Cl	37		ug/L			4140238	4236055	2
>	Sc	45		ug/L			1070141	1077926 ✓	2
	Al	27	0.188	ug/L	0.195	103	6167	12686	55
	V	51	0.008	ug/L	0.014	168	8787	9016	1
	V-1	51	0.003	ug/L	0.003	98	45	100	56
	Cr	52	0.026	ug/L	0.053	200	25797	26414	0
	Cr	53	0.007	ug/L	0.005	66	119	133	8
	Fe	54	-0.221	ug/L	2.301	1039	71682	71905	2
	Fe	57	0.998	ug/L	0.777	77	9627	10167	5
	Mn	55	0.002	ug/L	0.001	84	492	535	8
	Co	59	0.002	ug/L	0.002	112	78	108	31
>	Ge	72		ug/L			580442	560706 ✓	1
	Ni	60	0.003	ug/L	0.004	132	28	38	36
	Ni	62	0.222	ug/L	0.197	88	309	408	23
	Cu	63	0.028	ug/L	0.020	73	301	510	31
	Cu	65	0.006	ug/L	0.003	45	43	64	15
	Zn	66	0.008	ug/L	0.005	59	184	194	3
	Zn	67	-0.011	ug/L	0.003	25	30	26	3
	Zn	68	0.008	ug/L	0.016	201	181	186	11
	As	75	0.005	ug/L	0.003	61	180	184	3
	As-1	75	0.179	ug/L	0.072	40	11796	11743	0
	Se	82	-0.022	ug/L	0.022	97	0	-4	100
	Se	78	0.669	ug/L	0.266	39	11951	11890	0
	Mo	98	0.021	ug/L	0.002	11	6	102	10
	Y	89		ug/L			356764	353887	0
	Kr	83		ug/L			473	484	0
>	In	115		ug/L			987844	969341 ✓	0
	Ag	107	0.004	ug/L	0.003	75	15	66	58
	Cd	111	0.008	ug/L	0.002	22	64	101	8
	Cd	114	0.002	ug/L	0.002	101	38	66	42
	Sb	121	0.114	ug/L	0.011	9	27	1577	9
	Sb	123	0.116	ug/L	0.011	9	21	1209	9
	Ba	135	0.003	ug/L	0.003	134	16	27	54
	Ba	137	0.001	ug/L	0.002	182	32	40	38
>	Tb	159		ug/L			1186851	1137243 ✓	0
	Tl	205	0.019	ug/L	0.008	40	48	706	37
	Pb	208	0.003	ug/L	0.002	85	169	280	36
	Bi	209		ug/L			2692417	2632254	1
	Th	232	0.179	ug/L	0.008	4	61	7371	3
	U	238	0.006	ug/L	0.002	37	6	266	37

Sample Information

Sample Date/Time: Tuesday, November 20, 2012 10:43:35
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\112012.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							
Al	27	**1.0000**	0.031	20.00	1000	2000	5000	10000
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
Fe	54	**0.9999**	0.001	20.00	1000	2000	5000	10000
Fe	57	**0.9999**	0.000	20.00	1000	2000	5000	10000
Mn	55	**0.9997**	0.022	0.50	10	20	50	100
Co	59	**1.0000**	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	**0.9999**	0.014	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	**1.0000**	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**	0.012	0.20	10	20	50	100
Cd	111	**1.0000**	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**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9996**	0.031	0.20	10	20	50	100
Pb	208	**0.9999**	0.039	0.10	10	20	50	100
Bi	209							
Th	232	**0.9995**	0.036	0.20	10	20	50	100
U	238	**0.9999**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:50:34
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	936680 ✓	2
	Be	9	50.318	ug/L	1.566	3	11	154546	1
	C	13		ug/L			80899	83301	2
	Cl	37		ug/L			4140238	4414721	2
>	Sc	45		ug/L			1070141	1083357 ✓	2
	Al	27	4868.919	ug/L	88.306	1	6167	165262624	1
	V	51	50.418	ug/L	0.882	1	8787	1045011	0
	V-1	51	50.073	ug/L	0.971	1	45	1033485	1
	Cr	52	50.067	ug/L	1.605	3	25797	874773	0
	Cr	53	48.903	ug/L	1.660	3	119	95163	1
	Fe	54	4983.303	ug/L	167.567	3	71682	6019801	1
	Fe	57	5082.430	ug/L	242.888	4	9627	2396175	2
	Mn	55	48.315	ug/L	0.656	1	492	1142133	0
	Co	59	51.234	ug/L	0.248	0	78	877148	1
>	Ge	72		ug/L			580442	564134 ✓	0
	Ni	60	52.440	ug/L	0.555	1	28	186139	1
	Ni	62	52.259	ug/L	1.038	1	309	26242	1
	Cu	63	51.839	ug/L	0.592	1	301	410423	0
	Cu	65	51.481	ug/L	0.900	1	43	183457	1
	Zn	66	50.674	ug/L	0.649	1	184	104180	1
	Zn	67	50.430	ug/L	0.411	0	30	17499	0
	Zn	68	50.956	ug/L	0.503	0	181	75022	1
	As	75	52.457	ug/L	0.632	1	180	102859	0
	As-1	75	52.474	ug/L	1.015	1	11796	114297	1
	Se	82	79.322	ug/L	0.706	0	0	16173	0
	Se	78	79.167	ug/L	1.028	1	11951	52867	0
	Mo	98	49.675	ug/L	0.163	0	6	226965	0
	Y	89		ug/L			356764	360498	1
	Kr	83		ug/L			473	497	2
>	In	115		ug/L			987844	960713 ✓	0
	Ag	107	50.590	ug/L	0.579	1	15	578013	0
	Cd	111	50.052	ug/L	0.233	0	64	229636	0
	Cd	114	50.491	ug/L	0.406	0	38	577963	0
	Sb	121	50.007	ug/L	0.280	0	27	671043	0
	Sb	123	49.783	ug/L	0.538	1	21	504174	1
	Ba	135	50.373	ug/L	0.438	0	16	212872	1
	Ba	137	50.458	ug/L	0.614	1	32	368116	0
>	Tb	159		ug/L			1186851	1167024 ✓	0
	Tl	205	48.536	ug/L	0.333	0	48	1744459	0
	Pb	208	50.065	ug/L	0.286	0	169	2269100	0
	Bi	209		ug/L			2692417	2520851	0
	Th	232	53.486	ug/L	0.351	0	61	2239344	0
	U	238	52.314	ug/L	0.119	0	6	2396527	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 10:57:32
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: C:\NexION Data\System\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	939644 ✓	0
	Be	9	0.001	ug/L	0.003	336	11	13	55
	C	13		ug/L			80899	79950	2
	Cl	37		ug/L			4140238	4210460	2
>	Sc	45		ug/L			1070141	1086879 ✓	1
	Al	27	0.020	ug/L	0.013	63	6167	6945	7
	V	51	-0.003	ug/L	0.015	501	8787	8859	2
	V-1	51	0.001	ug/L	0.000	54	45	56	11
	Cr	52	-0.001	ug/L	0.052	3775	25797	26169	1
	Cr	53	0.011	ug/L	0.010	92	119	142	13
	Fe	54	-1.998	ug/L	1.750	87	71682	70393	1
	Fe	57	0.235	ug/L	1.204	511	9627	9891	6
	Mn	55	-0.001	ug/L	0.001	45	492	467	1
	Co	59	0.000	ug/L	0.000	78	78	82	1
>	Ge	72		ug/L			580442	571262 ✓	2
	Ni	60	-0.000	ug/L	0.001	315	28	26	16
	Ni	62	-0.049	ug/L	0.021	42	309	280	4
	Cu	63	0.002	ug/L	0.003	170	301	309	5
	Cu	65	0.001	ug/L	0.001	89	43	47	11
	Zn	66	0.006	ug/L	0.010	149	184	194	11
	Zn	67	0.029	ug/L	0.007	25	30	40	7
	Zn	68	0.011	ug/L	0.018	162	181	195	13
	As	75	-0.008	ug/L	0.015	188	180	161	19
	As-1	75	0.097	ug/L	0.074	76	11796	11800	0
	Se	82	-0.022	ug/L	0.035	158	0	-4	163
	Se	78	0.383	ug/L	0.319	83	11951	11962	0
	Mo	98	0.010	ug/L	0.002	23	6	52	22
	Y	89		ug/L			356764	358277	0
	Kr	83		ug/L			473	474	0
>	In	115		ug/L			987844	981916 ✓	0
	Ag	107	0.001	ug/L	0.000	24	15	31	12
	Cd	111	0.003	ug/L	0.002	62	64	77	10
	Cd	114	0.001	ug/L	0.001	95	38	50	22
	Sb	121	0.040	ug/L	0.007	16	27	573	15
	Sb	123	0.041	ug/L	0.007	17	21	450	16
	Ba	135	-0.001	ug/L	0.001	273	16	14	42
	Ba	137	-0.001	ug/L	0.000	34	32	25	9
>	Tb	159		ug/L			1186851	1157532 ✓	0
	Tl	205	0.006	ug/L	0.003	54	48	268	44
	Pb	208	0.000	ug/L	0.001	306	169	176	20
	Bi	209		ug/L			2692417	2653108	1
	Th	232	0.102	ug/L	0.006	5	61	4277	5
	U	238	0.003	ug/L	0.000	8	6	120	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:01:47
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	924484 ✓	1
	Be	9	49.929	ug/L	1.775	3	11	151351	1
	C	13		ug/L			80899	79228	0
	Cl	37		ug/L			4140238	4410209	3
>	Sc	45		ug/L			1070141	1076578 ✓	0
	Al	27	4861.992	ug/L	73.811	1	6167	164032164	1
	V	51	47.697	ug/L	0.214	0	8787	983137	0
	V-1	51	47.481	ug/L	0.175	0	45	974078	0
	Cr	52	48.584	ug/L	0.175	0	25797	844710	0
	Cr	53	47.839	ug/L	0.236	0	119	92555	0
	Fe	54	4821.611	ug/L	37.517	0	71682	5792837	0
	Fe	57	4894.433	ug/L	122.552	2	9627	2295050	2
	Mn	55	46.923	ug/L	0.169	0	492	1102516	0
	Co	59	49.082	ug/L	0.598	1	78	835099	1
>	Ge	72		ug/L			580442	558833 ✓	1
	Ni	60	51.413	ug/L	2.113	4	28	180703	2
	Ni	62	50.553	ug/L	0.905	1	309	25153	0
	Cu	63	50.638	ug/L	1.534	3	301	397051	1
	Cu	65	50.179	ug/L	0.139	0	43	177140	1
	Zn	66	51.764	ug/L	1.336	2	184	105386	1
	Zn	67	50.836	ug/L	1.513	2	30	17469	1
	Zn	68	52.367	ug/L	1.158	2	181	76351	0
	As	75	50.173	ug/L	0.937	1	180	97448	0
	As-1	75	50.301	ug/L	1.066	2	11796	108987	0
	Se	82	50.728	ug/L	0.824	1	0	10244	0
	Se	78	51.225	ug/L	1.246	2	11951	37941	0
	Mo	98	50.601	ug/L	0.969	1	6	228986	0
	Y	89		ug/L			356764	352733	1
	Kr	83		ug/L			473	536	1
>	In	115		ug/L			987844	957533 ✓	0
	Ag	107	48.304	ug/L	0.336	0	15	550075	0
	Cd	111	49.622	ug/L	0.522	1	64	226903	0
	Cd	114	49.624	ug/L	0.582	1	38	566141	0
	Sb	121	49.121	ug/L	0.049	0	27	656970	0
	Sb	123	49.442	ug/L	0.410	0	21	499043	0
	Ba	135	49.274	ug/L	0.303	0	16	207536	0
	Ba	137	49.125	ug/L	0.433	0	32	357231	1
>	Tb	159		ug/L			1186851	1151585 ✓	0
	Tl	205	47.454	ug/L	0.548	1	48	1683040	1
	Pb	208	48.689	ug/L	0.177	0	169	2177564	0
	Bi	209		ug/L			2692417	2541384	0
	Th	232	49.309	ug/L	2.868	5	61	2037364	6
	U	238	50.786	ug/L	0.107	0	6	2295734	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:08:27
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	940303 ✓	2
	Be	9	0.001	ug/L	0.001	178	11	13	23
	C	13		ug/L			80899	81398	1
	Cl	37		ug/L			4140238	4231699	1
>	Sc	45		ug/L			1070141	1083309 ✓	2
	Al	27	0.077	ug/L	0.121	156	6167	8838	45
	V	51	-0.002	ug/L	0.020	1047	8787	8851	2
	V-1	51	0.001	ug/L	0.001	94	45	72	33
	Cr	52	-0.005	ug/L	0.061	1252	25797	26017	2
	Cr	53	0.006	ug/L	0.004	69	119	132	8
	Fe	54	-0.174	ug/L	3.345	1924	71682	72290	3
	Fe	57	-0.089	ug/L	1.449	1620	9627	9700	6
	Mn	55	-0.002	ug/L	0.001	57	492	453	6
	Co	59	0.001	ug/L	0.001	152	78	90	17
>	Ge	72		ug/L			580442	574267 ✓	2
	Ni	60	-0.000	ug/L	0.002	936	28	27	17
	Ni	62	-0.036	ug/L	0.054	149	309	288	11
	Cu	63	0.003	ug/L	0.004	122	301	324	9
	Cu	65	0.003	ug/L	0.002	57	43	54	11
	Zn	66	0.002	ug/L	0.002	91	184	186	4
	Zn	67	0.007	ug/L	0.001	15	30	32	1
	Zn	68	0.007	ug/L	0.006	85	181	190	6
	As	75	0.002	ug/L	0.026	1585	180	180	26
	As-1	75	0.060	ug/L	0.167	277	11796	11785	0
	Se	82	-0.023	ug/L	0.058	256	0	-4	252
	Se	78	0.231	ug/L	0.610	264	11951	11941	0
	Mo	98	0.018	ug/L	0.011	60	6	88	53
	Y	89		ug/L			356764	350649	0
	Kr	83		ug/L			473	490	0
>	In	115		ug/L			987844	958070 ✓	0
	Ag	107	0.006	ug/L	0.007	122	15	84	101
	Cd	111	0.008	ug/L	0.005	70	64	97	25
	Cd	114	0.004	ug/L	0.006	151	38	82	83
	Sb	121	0.076	ug/L	0.007	9	27	1047	9
	Sb	123	0.078	ug/L	0.009	11	21	805	11
	Ba	135	0.001	ug/L	0.004	310	16	21	79
	Ba	137	0.000	ug/L	0.004	810	32	35	84
>	Tb	159		ug/L			1186851	1138789 ✓	1
	Tl	205	0.010	ug/L	0.007	66	48	408	59
	Pb	208	0.002	ug/L	0.002	118	169	234	37
	Bi	209		ug/L			2692417	2621422	0
	Th	232	0.142	ug/L	0.008	5	61	5839	4
	U	238	0.003	ug/L	0.002	61	6	157	59

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:12:41
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	940707 ✓	0
	Be	9	0.204	ug/L	0.006	2	11	641	2
	C	13		ug/L			80899	81957	1
	Cl	37		ug/L			4140238	4177079	1
>	Sc	45		ug/L			1070141	1097321 ✓	1
	Al	27	19.061	ug/L	0.705	3	6167	661458	1
	V	51	0.192	ug/L	0.006	3	8787	13002	2
	V-1	51	0.202	ug/L	0.005	2	45	4266	1
	Cr	52	0.477	ug/L	0.013	2	25797	34644	1
	Cr	53	0.508	ug/L	0.037	7	119	1121	4
	Fe	54	15.182	ug/L	1.622	10	71682	91842	0
	Fe	57	19.226	ug/L	1.457	7	9627	19017	2
	Mn	55	0.478	ug/L	0.007	1	492	11958	2
	Co	59	0.202	ug/L	0.011	5	78	3575	4
>	Ge	72		ug/L			580442	579296 ✓	0
	Ni	60	0.522	ug/L	0.024	4	28	1929	4
	Ni	62	0.393	ug/L	0.031	7	309	509	3
	Cu	63	0.519	ug/L	0.008	1	301	4521	1
	Cu	65	0.504	ug/L	0.010	2	43	1885	2
	Zn	66	4.546	ug/L	0.028	0	184	9763	0
	Zn	67	3.948	ug/L	0.124	3	30	1435	3
	Zn	68	4.415	ug/L	0.137	3	181	6840	3
	As	75	0.221	ug/L	0.017	7	180	624	5
	As-1	75	0.151	ug/L	0.039	25	11796	12076	0
	Se	82	0.535	ug/L	0.021	3	0	112	4
	Se	78	0.261	ug/L	0.107	40	11951	12067	0
	Mo	98	0.198	ug/L	0.005	2	6	936	2
	Y	89		ug/L			356764	355128	1
	Kr	83		ug/L			473	468	4
>	In	115		ug/L			987844	967737 ✓	1
	Ag	107	0.206	ug/L	0.007	3	15	2387	2
	Cd	111	0.116	ug/L	0.005	4	64	597	5
	Cd	114	0.107	ug/L	0.002	1	38	1277	2
	Sb	121	0.224	ug/L	0.004	1	27	3051	1
	Sb	123	0.217	ug/L	0.009	4	21	2236	2
	Ba	135	0.498	ug/L	0.006	1	16	2134	1
	Ba	137	0.497	ug/L	0.003	0	32	3686	1
>	Tb	159		ug/L			1186851	1150511 ✓	1
	Tl	205	0.209	ug/L	0.005	2	48	7436	1
	Pb	208	0.112	ug/L	0.002	1	169	5183	0
	Bi	209		ug/L			2692417	2639071	0
	Th	232	0.214	ug/L	0.004	1	61	8906	2
	U	238	0.195	ug/L	0.002	1	6	8818	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:16:55
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	961320	2
	Be	9	0.005	ug/L	0.001	9	11	29	6
	C	13		ug/L			80899	161791	3
	Cl	37		ug/L			4140238	12878335	1
>	Sc	45		ug/L			1070141	1135326	0
	Al	27	19829.547	ug/L	623.890	3	6167	705436278	2
	V	51	0.208	ug/L	0.021	10	8787	13800	2
	V-1	51	1.173	ug/L	0.051	4	45	25428	4
	Cr	52	0.648	ug/L	0.003	0	25797	38894	0
	Cr	53	3.920	ug/L	0.178	4	119	8113	4
	Fe	54	19313.775	ug/L	153.433	0	71682	24241477	0
	Fe	57	19643.545	ug/L	359.648	1	9627	9682684	1
	Mn	55	0.068	ug/L	0.004	5	492	2211	4
	Co	59	0.025	ug/L	0.001	4	78	536	3
>	Ge	72		ug/L			580442	566379	1
	Ni	60	0.418	ug/L	0.010	2	28	1517	2
	Ni	62	3.876	ug/L	0.951	24	309	2233	21
	Cu	63	1.160	ug/L	0.080	6	301	9504	6
	Cu	65	0.429	ug/L	0.032	7	43	1574	6
	Zn	66	1.829	ug/L	0.040	2	184	3947	1
	Zn	67	7.532	ug/L	0.281	3	30	2648	2
	Zn	68	1.248	ug/L	0.050	3	181	2017	1
	As	75	0.318	ug/L	0.027	8	180	801	8
	As-1	75	0.729	ug/L	0.088	12	11796	12942	0
	Se	82	-0.285	ug/L	0.087	30	0	-58	30
	Se	78	1.729	ug/L	0.433	25	11951	12563	0
	Mo	98	409.495✓	ug/L	13.755	3	6	1877812	2
	Y	89		ug/L			356764	358597	1
	Kr	83		ug/L			473	774	3
>	In	115		ug/L			987844	953256	0
	Ag	107	0.035	ug/L	0.002	4	15	410	3
	Cd	111	0.129	ug/L	0.006	4	64	650	5
	Cd	114	0.259	ug/L	0.006	2	38	2981	1
	Sb	121	0.101	ug/L	0.006	5	27	1371	6
	Sb	123	0.097	ug/L	0.005	4	21	997	5
	Ba	135	0.064	ug/L	0.005	7	16	284	8
	Ba	137	0.051	ug/L	0.004	7	32	399	7
>	Tb	159		ug/L			1186851	1175745	0
	Tl	205	0.042	ug/L	0.003	6	48	1565	6
	Pb	208	0.044	ug/L	0.001	2	169	2156	2
	Bi	209		ug/L			2692417	2387061	0
	Th	232	0.263	ug/L	0.076	28	61	11131	28
	U	238	0.017	ug/L	0.000	1	6	789	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:23:33
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	992823	2
	Be	9	0.002	ug/L	0.001	85	11	17	29
	C	13		ug/L			80899	161843	2
	Cl	37		ug/L			4140238	12379305	6
>	Sc	45		ug/L			1070141	1123179	2
	Al	27	20042.857	ug/L	512.029	2	6167	705192418	0
	V	51	0.200	ug/L	0.110	54	8787	13482	16
	V-1	51	1.277	ug/L	0.022	1	45	27374	2
	Cr	52	20.441	ug/L	0.441	2	25797	386359	0
	Cr	53	23.805	ug/L	0.496	2	119	48101	1
	Fe	54	19100.444	ug/L	808.596	4	71682	23705272	2
	Fe	57	19358.997	ug/L	754.504	3	9627	9436061	2
	Mn	55	18.734	ug/L	0.405	2	492	459433	1
	Co	59	19.699	ug/L	0.405	2	78	349616	0
>	Ge	72		ug/L			580442	559668	0
	Ni	60	21.046	ug/L	0.324	1	28	74133	2
	Ni	62	27.747	ug/L	1.454	5	309	13961	4
	Cu	63	21.631	ug/L	0.100	0	301	170076	0
	Cu	65	20.551	ug/L	0.506	2	43	72672	1
	Zn	66	19.881	ug/L	0.216	1	184	40655	1
	Zn	67	23.914	ug/L	0.104	0	30	8248	0
	Zn	68	19.123	ug/L	0.390	2	181	28038	1
	As	75	19.294	ug/L	0.238	1	180	37643	1
	As-1	75	19.943	ug/L	0.195	0	11796	50146	0
	Se	82	-0.380	ug/L	0.083	21	0	-76	22
	Se	78	2.659	ug/L	0.254	9	11951	12898	0
	Mo	98	427.591	ug/L	8.753	2	6	1938029	1
	Y	89		ug/L			356764	360827	0
	Kr	83		ug/L			473	800	4
>	In	115		ug/L			987844	978158	1
	Ag	107	21.079	ug/L	0.186	0	15	245245	2
	Cd	111	19.970	ug/L	0.150	0	64	93315	0
	Cd	114	19.928	ug/L	0.320	1	38	232241	0
	Sb	121	0.072	ug/L	0.002	2	27	1007	1
	Sb	123	0.069	ug/L	0.000	0	21	729	1
	Ba	135	0.054	ug/L	0.002	4	16	247	4
	Ba	137	0.041	ug/L	0.002	5	32	334	4
>	Tb	159		ug/L			1186851	1189556	0
	Tl	205	0.031	ug/L	0.001	2	48	1201	1
	Pb	208	0.033	ug/L	0.001	4	169	1693	3
	Bi	209		ug/L			2692417	2365139	0
	Th	232	0.094	ug/L	0.011	11	61	4060	11
	U	238	0.001	ug/L	0.000	39	6	40	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:30:31
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	939442 ✓	0
	Be	9	194.858	ug/L	1.380	0	11	600464	0
	C	13		ug/L			80899	88484	1
	Cl	37		ug/L			4140238	4549258	2
>	Sc	45		ug/L			1070141	1050943 ✓	2
	Al	27	20736.355	ug/L	667.444	3	6167	682631768	1
	V	51	210.026	ug/L	5.907	2	8787	4194876	0
	V-1	51	206.225	ug/L	6.963	3	45	4127703	1
	Cr	52	210.372	ug/L	0.999	0	25797	3486273	2
	Cr	53	197.463	ug/L	3.672	1	119	372467	0
	Fe	54	19401.434	ug/L	569.962	2	71682	22532975	1
	Fe	57	19487.685	ug/L	549.014	2	9627	8888777	1
	Mn	55	198.218	ug/L	5.378	2	492	4543027	0
	Co	59	207.445	ug/L	7.808	3	78	3443152	1
>	Ge	72		ug/L			580442	536487 ✓	1
	Ni	60	202.655	ug/L	2.772	1	28	683895	0
	Ni	62	210.430	ug/L	3.782	1	309	99627	2
	Cu	63	200.459	ug/L	3.404	1	301	1508287	0
	Cu	65	196.832	ug/L	3.613	1	43	666826	1
	Zn	66	195.878	ug/L	4.900	2	184	382443	2
	Zn	67	195.671	ug/L	4.147	2	30	64478	1
	Zn	68	200.008	ug/L	5.164	2	181	279471	1
	As	75	203.659	ug/L	2.131	1	180	379268	1
	As-1	75	202.901	ug/L	1.694	0	11796	389026	1
	Se	82	200.190	ug/L	5.331	2	0	38805	1
	Se	78	197.455	ug/L	3.586	1	11951	108875	0
	Mo	98	211.715	ug/L	7.522	3	6	919582	2
	Y	89		ug/L			356764	340795	0
	Kr	83		ug/L			473	752	1
>	In	115		ug/L			987844	944506 ✓	0
	Ag	107	220.060 ND	ug/L	3.168	1	15	2471902	1
	Cd	111	198.965	ug/L	3.329	1	64	897175	0
	Cd	114	213.140	ug/L	2.831	1	38	2398318	0
	Sb	121	215.566	ug/L	3.215	1	27	2843546	0
	Sb	123	216.346	ug/L	2.035	0	21	2153868	0
	Ba	135	202.809	ug/L	3.621	1	16	842495	1
	Ba	137	204.417	ug/L	1.311	0	32	1466073	0
>	Tb	159		ug/L			1186851	1158252 ✓	0
	Tl	205	195.015	ug/L	1.317	0	48	6956204	0
	Pb	208	198.579	ug/L	1.211	0	169	8931878	0
	Bi	209		ug/L			2692417	2288990	0
	Th	232	200.242	ug/L	0.643	0	61	8320365	0
	U	238	196.981	ug/L	3.030	1	6	8955647	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:37:30
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	934154 ✓	0
[	Be	9	283.913	ug/L	2.285	0	11	869984	1
	C	13		ug/L			80899	87786	1
	Cl	37		ug/L			4140238	4408316	1
[>	Sc	45		ug/L			1070141	1025317 ✓	2
[	Al	27	S	ug/L	S	S	6167	S	S
[	V	51	318.533	ug/L	6.178	1	8787	6203888	1
[	V-1	51	312.430	ug/L	5.961	1	45	6102838	1
[	Cr	52	319.157	ug/L	6.974	2	25797	5145408	0
[	Cr	53	298.427	ug/L	5.725	1	119	549115	0
[	Fe	54	29861.057	ug/L	377.581	1	71682	33813031	2
[	Fe	57	29281.866	ug/L	1031.821	3	9627	13025827	2
[	Mn	55	306.503	ug/L	6.745	2	492	6853963	0
[	Co	59	316.181	ug/L	7.505	2	78	5121132	0
[>	Ge	72		ug/L			580442	523508 ✓	1
[	Ni	60	300.576	ug/L	3.573	1	28	990009	2
[	Ni	62	305.812	ug/L	7.730	2	309	141171	3
[	Cu	63	320.734	ug/L	0.473	0	301	2355128	1
[	Cu	65	293.614	ug/L	3.443	1	43	970786	1
[	Zn	66	288.558	ug/L	3.882	1	184	549763	2
[	Zn	67	286.012	ug/L	4.058	1	30	91962	0
[	Zn	68	283.847	ug/L	6.004	2	181	387026	1
[	As	75	300.405	ug/L	2.551	0	180	545858	1
[	As-1	75	302.957	ug/L	2.803	0	11796	561594	1
[	Se	82	283.681	ug/L	3.476	1	0	53670	0
[	Se	78	293.551	ug/L	0.687	0	11951	152726	1
[	Mo	98	318.042	ug/L	10.373	3	6	1348113	2
	Y	89		ug/L			356764	328069	2
	Kr	83		ug/L			473	929	3
[>	In	115		ug/L			987844	904966 ✓	0
[	Ag	107	300.378	ug/L	3.321	1	15	3233062	1
[	Cd	111	290.433	ug/L	1.218	0	64	1254869	0
[	Cd	114	313.998	ug/L	6.065	1	38	3385174	1
[	Sb	121	319.999	ug/L	5.980	1	27	4044663	1
[	Sb	123	317.557	ug/L	2.960	0	21	3029144	0
[	Ba	135	307.184	ug/L	8.248	2	16	1222597	2
[	Ba	137	332.695	ug/L	3.917	1	32	2286159	0
[>	Tb	159		ug/L			1186851	1136828 ✓	0
[	Tl	205	292.934	ug/L	4.290	1	48	10255923	1
[	Pb	208	294.875	ug/L	2.329	0	169	13018243	0
[	Bi	209		ug/L			2692417	2123949	5
[	Th	232	294.679	ug/L	2.168	0	61	12018113	0
[	U	238	288.710	ug/L	2.860	0	6	12883718	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:44:28
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	939840	1
	Be	9	0.004	ug/L	0.003	82	11	23	42
	C	13		ug/L			80899	83326	0
	Cl	37		ug/L			4140238	4249009	3
>	Sc	45		ug/L			1070141	1041829	0
	Al	27	0.572	ug/L	0.126	21	6167	24673	15
	V	51	0.015	ug/L	0.010	68	8787	8842	1
	V-1	51	0.014	ug/L	0.003	23	45	314	19
	Cr	52	0.058	ug/L	0.041	70	25797	26053	1
	Cr	53	0.054	ug/L	0.014	25	119	216	11
	Fe	54	1.736	ug/L	0.243	13	71682	71779	0
	Fe	57	1.185	ug/L	1.103	93	9627	9906	4
	Mn	55	0.018	ug/L	0.008	44	492	880	20
	Co	59	0.005	ug/L	0.005	95	78	156	49
>	Ge	72		ug/L			580442	560210	0
	Ni	60	0.042	ug/L	0.007	16	28	174	14
	Ni	62	2.466	ug/L	0.660	26	309	1514	21
	Cu	63	0.188	ug/L	0.037	19	301	1765	16
	Cu	65	0.028	ug/L	0.005	17	43	141	12
	Zn	66	0.714	ug/L	0.045	6	184	1632	5
	Zn	67	0.645	ug/L	0.033	5	30	251	4
	Zn	68	0.723	ug/L	0.057	7	181	1229	6
	As	75	0.023	ug/L	0.024	100	180	219	20
	As-1	75	0.181	ug/L	0.019	10	11796	11738	0
	Se	82	0.044	ug/L	0.043	97	0	9	95
	Se	78	0.638	ug/L	0.114	17	11951	11864	0
	Mo	98	0.050	ug/L	0.008	16	6	231	16
	Y	89		ug/L			356764	348140	1
	Kr	83		ug/L			473	458	1
>	In	115		ug/L			987844	973800	1
	Ag	107	0.008	ug/L	0.004	44	15	112	38
	Cd	111	0.010	ug/L	0.005	50	64	111	21
	Cd	114	0.006	ug/L	0.003	47	38	107	30
	Sb	121	0.314	ug/L	0.031	9	27	4303	10
	Sb	123	0.313	ug/L	0.032	10	21	3230	10
	Ba	135	0.012	ug/L	0.003	27	16	65	19
	Ba	137	0.011	ug/L	0.003	27	32	112	19
>	Tb	159		ug/L			1186851	1138087	0
	Tl	205	0.038	ug/L	0.014	36	48	1385	35
	Pb	208	0.015	ug/L	0.001	6	169	841	5
	Bi	209		ug/L			2692417	2617159	0
	Th	232	0.230	ug/L	0.008	3	61	9438	3
	U	238	0.008	ug/L	0.001	9	6	375	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:50:36
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	940009	1
[	Be	9	0.002	ug/L	0.001	27	11	18	11
	C	13		ug/L			80899	85061	1
	Cl	37		ug/L			4140238	4202432	1
[>	Sc	45		ug/L			1070141	1052990	0
[	Al	27	0.334	ug/L	0.017	5	6167	17096	2
[	V	51	0.012	ug/L	0.014	113	8787	8893	2
[	V-1	51	0.008	ug/L	0.001	10	45	201	8
[	Cr	52	0.059	ug/L	0.055	92	25797	26355	2
[	Cr	53	0.043	ug/L	0.006	14	119	198	5
[	Fe	54	0.651	ug/L	1.281	196	71682	71297	2
[	Fe	57	0.426	ug/L	0.200	46	9627	9668	1
[	Mn	55	0.007	ug/L	0.002	20	492	654	6
[	Co	59	0.001	ug/L	0.001	61	78	91	10
[>	Ge	72		ug/L			580442	558466	1
[	Ni	60	0.046	ug/L	0.005	10	28	189	7
[	Ni	62	0.827	ug/L	0.134	16	309	704	9
[	Cu	63	0.062	ug/L	0.005	8	301	779	4
[	Cu	65	0.015	ug/L	0.003	21	43	95	13
[	Zn	66	0.395	ug/L	0.037	9	184	979	6
[	Zn	67	0.351	ug/L	0.035	10	30	149	7
[	Zn	68	0.388	ug/L	0.015	3	181	738	3
[	As	75	-0.005	ug/L	0.011	205	180	163	11
[	As-1	75	0.209	ug/L	0.101	48	11796	11753	0
[	Se	82	-0.033	ug/L	0.108	325	0	-6	324
[	Se	78	0.809	ug/L	0.409	50	11951	11914	0
[	Mo	98	0.017	ug/L	0.002	9	6	81	9
	Y	89		ug/L			356764	349201	2
	Kr	83		ug/L			473	481	6
[>	In	115		ug/L			987844	968553	0
[	Ag	107	0.003	ug/L	0.001	30	15	45	20
[	Cd	111	0.006	ug/L	0.002	41	64	89	12
[	Cd	114	0.003	ug/L	0.000	13	38	70	5
[	Sb	121	0.091	ug/L	0.013	14	27	1257	14
[	Sb	123	0.092	ug/L	0.014	14	21	958	14
[	Ba	135	0.007	ug/L	0.001	19	16	45	12
[	Ba	137	0.007	ug/L	0.001	10	32	80	6
[>	Tb	159		ug/L			1186851	1141039	0
[	Tl	205	0.021	ug/L	0.010	49	48	785	45
[	Pb	208	0.009	ug/L	0.000	5	169	576	3
[	Bi	209		ug/L			2692417	2610522	0
[	Th	232	0.076	ug/L	0.003	3	61	3157	2
[	U	238	0.002	ug/L	0.000	14	6	88	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 11:56:14
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	938939	0
	Be	9	0.002	ug/L	0.001	62	11	17	21
	C	13		ug/L			80899	83413	2
	Cl	37		ug/L			4140238	4211670	4
>	Sc	45		ug/L			1070141	1066525	1
	Al	27	0.409	ug/L	0.010	2	6167	19818	2
	V	51	0.004	ug/L	0.015	358	8787	8841	4
	V-1	51	0.006	ug/L	0.001	14	45	168	11
	Cr	52	0.026	ug/L	0.052	202	25797	26141	4
	Cr	53	0.032	ug/L	0.005	14	119	180	5
	Fe	54	0.372	ug/L	2.108	567	71682	71861	2
	Fe	57	0.919	ug/L	1.644	178	9627	10021	7
	Mn	55	0.014	ug/L	0.000	3	492	820	2
	Co	59	0.002	ug/L	0.001	64	78	112	20
>	Ge	72		ug/L			580442	559580	2
	Ni	60	0.052	ug/L	0.003	6	28	209	6
	Ni	62	0.405	ug/L	0.092	22	309	498	10
	Cu	63	0.219	ug/L	0.007	3	301	2012	4
	Cu	65	0.201	ug/L	0.004	1	43	751	1
	Zn	66	0.956	ug/L	0.039	4	184	2121	2
	Zn	67	0.879	ug/L	0.028	3	30	331	2
	Zn	68	0.929	ug/L	0.057	6	181	1526	3
	As	75	0.011	ug/L	0.019	164	180	196	20
	As-1	75	0.156	ug/L	0.142	91	11796	11670	0
	Se	82	0.023	ug/L	0.085	376	0	4	366
	Se	78	0.581	ug/L	0.593	101	11951	11817	0
	Mo	98	0.011	ug/L	0.002	22	6	55	19
	Y	89		ug/L			356764	348692	1
	Kr	83		ug/L			473	468	6
>	In	115		ug/L			987844	980595	1
	Ag	107	0.002	ug/L	0.001	44	15	33	22
	Cd	111	0.006	ug/L	0.003	57	64	90	15
	Cd	114	0.002	ug/L	0.000	8	38	64	2
	Sb	121	0.045	ug/L	0.010	22	27	643	20
	Sb	123	0.047	ug/L	0.009	19	21	501	17
	Ba	135	0.028	ug/L	0.001	2	16	137	3
	Ba	137	0.030	ug/L	0.001	3	32	256	2
>	Tb	159		ug/L			1186851	1143290	0
	Tl	205	0.012	ug/L	0.006	51	48	469	45
	Pb	208	0.020	ug/L	0.000	2	169	1068	2
	Bi	209		ug/L			2692417	2629989	0
	Th	232	0.046	ug/L	0.001	2	61	1933	1
	U	238	0.001	ug/L	0.000	2	6	50	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:00:30
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	956916 ✓	0
[	Be	9	49.610	ug/L	0.473	0	11	155724	0
	C	13		ug/L			80899	81406	4
	Cl	37		ug/L			4140238	4461840	3
[>	Sc	45		ug/L			1070141	1059594 ✓	2
|	Al	27	5005.177	ug/L	202.666	4	6167	166101349	2
|	V	51	48.377	ug/L	2.009	4	8787	980760	2
|	V-1	51	48.344	ug/L	2.025	4	45	975574	2
|	Cr	52	49.690	ug/L	0.985	1	25797	849490	0
|	Cr	53	49.559	ug/L	1.184	2	119	94333	0
|	Fe	54	4949.988	ug/L	188.521	3	71682	5848130	1
|	Fe	57	4950.438	ug/L	183.133	3	9627	2283415	1
|	Mn	55	48.084	ug/L	1.294	2	492	1111539	1
[	Co	59	49.673	ug/L	0.685	1	78	831640	0
[>	Ge	72		ug/L			580442	557505 ✓	1
|	Ni	60	50.459	ug/L	1.175	2	28	176965	1
|	Ni	62	50.292	ug/L	0.814	1	309	24966	0
|	Cu	63	49.964	ug/L	1.250	2	301	390839	0
|	Cu	65	49.229	ug/L	0.617	1	43	173353	1
|	Zn	66	50.937	ug/L	0.344	0	184	103479	1
|	Zn	67	49.743	ug/L	1.104	2	30	17056	1
|	Zn	68	51.082	ug/L	0.749	1	181	74312	1
|	As	75	50.057	ug/L	1.033	2	180	96988	0
|	As-1	75	50.295	ug/L	1.258	2	11796	108712	0
|	Se	82	49.972	ug/L	0.437	0	0	10068	0
|	Se	78	50.856	ug/L	1.241	2	11951	37661	0
[	Mo	98	49.377	ug/L	1.385	2	6	222880	1
	Y	89		ug/L			356764	350385	0
	Kr	83		ug/L			473	514	3
[>	In	115		ug/L			987844	953058 ✓	0
|	Ag	107	49.934	ug/L	0.985	1	15	565994	1
|	Cd	111	50.350	ug/L	0.546	1	64	229162	1
|	Cd	114	50.333	ug/L	0.781	1	38	571585	1
|	Sb	121	49.497	ug/L	0.644	1	27	658892	1
|	Sb	123	49.679	ug/L	0.569	1	21	499102	0
|	Ba	135	49.722	ug/L	0.422	0	16	208454	1
[	Ba	137	49.757	ug/L	0.177	0	32	360122	0
[>	Tb	159		ug/L			1186851	1157255 ✓	0
|	Tl	205	47.655	ug/L	0.290	0	48	1698432	0
|	Pb	208	48.839	ug/L	0.483	0	169	2194910	0
|	Bi	209		ug/L			2692417	2539603	0
|	Th	232	47.492	ug/L	0.360	0	61	1971665	0
[	U	238	50.618	ug/L	0.660	1	6	2299302	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:07:29
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	947009 ✓	0
	Be	9	0.001	ug/L	0.001	141	11	14	28
	C	13		ug/L			80899	82822	1
	Cl	37		ug/L			4140238	4307416	2
>	Sc	45		ug/L			1070141	1065417 ✓	0
	Al	27	0.014	ug/L	0.004	29	6167	6596	1
	V	51	-0.004	ug/L	0.013	307	8787	8661	2
	V-1	51	0.003	ug/L	0.000	11	45	103	7
	Cr	52	-0.004	ug/L	0.045	1055	25797	25608	2
	Cr	53	0.020	ug/L	0.005	23	119	157	5
	Fe	54	-1.906	ug/L	1.753	91	71682	69128	3
	Fe	57	-0.903	ug/L	1.319	146	9627	9164	5
	Mn	55	-0.002	ug/L	0.000	17	492	446	1
	Co	59	-0.000	ug/L	0.001	378	78	74	18
>	Ge	72		ug/L			580442	557345 ✓	0
	Ni	60	0.003	ug/L	0.002	65	28	37	17
	Ni	62	0.321	ug/L	0.070	21	309	455	7
	Cu	63	0.025	ug/L	0.004	16	301	482	7
	Cu	65	0.001	ug/L	0.001	73	43	44	5
	Zn	66	0.006	ug/L	0.009	136	184	189	9
	Zn	67	0.006	ug/L	0.013	201	30	31	14
	Zn	68	0.011	ug/L	0.004	32	181	190	2
	As	75	0.002	ug/L	0.013	617	180	177	14
	As-1	75	0.130	ug/L	0.057	43	11796	11578	0
	Se	82	-0.068	ug/L	0.026	38	0	-13	39
	Se	78	0.475	ug/L	0.188	39	11951	11720	0
	Mo	98	0.014	ug/L	0.002	14	6	68	13
	Y	89		ug/L			356764	345179	2
	Kr	83		ug/L			473	496	0
>	In	115		ug/L			987844	961763 ✓	0
	Ag	107	0.002	ug/L	0.000	24	15	38	14
	Cd	111	0.005	ug/L	0.002	49	64	85	13
	Cd	114	0.001	ug/L	0.001	48	38	49	11
	Sb	121	0.085	ug/L	0.006	7	27	1166	7
	Sb	123	0.083	ug/L	0.007	8	21	865	8
	Ba	135	0.003	ug/L	0.001	39	16	28	17
	Ba	137	0.002	ug/L	0.001	37	32	49	13
>	Tb	159		ug/L			1186851	1138496 ✓	0
	Tl	205	0.011	ug/L	0.005	41	48	445	37
	Pb	208	0.000	ug/L	0.000	125	169	178	10
	Bi	209		ug/L			2692417	2616101	0
	Th	232	0.128	ug/L	0.006	4	61	5268	4
	U	238	0.002	ug/L	0.000	14	6	112	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:12:59
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	952479	0
[	Be	9	0.004	ug/L	0.001	33	11	24	17
	C	13		ug/L			80899	88125	2
	Cl	37		ug/L			4140238	4242319	1
[>	Sc	45		ug/L			1070141	1071660 ✓	1
	Al	27	0.957	ug/L	0.047	4	6167	38328	4
	V	51	0.015	ug/L	0.005	30	8787	9105	0
	V-1	51	0.009	ug/L	0.000	4	45	228	5
	Cr	52	0.050	ug/L	0.019	38	25797	26673	1
	Cr	53	0.029	ug/L	0.011	38	119	175	12
	Fe	54	13.895	ug/L	2.153	15	71682	88169	1
	Fe	57	1.888	ug/L	1.096	58	9627	10524	6
	Mn	55	0.111	ug/L	0.000	0	492	3089	1
[	Co	59	0.004	ug/L	0.000	9	78	141	4
[>	Ge	72		ug/L			580442	564788 ✓	1
	Ni	60	0.009	ug/L	0.003	28	28	59	16
	Ni	62	0.161	ug/L	0.079	49	309	381	11
	Cu	63	0.159	ug/L	0.006	3	301	1556	3
	Cu	65	0.157	ug/L	0.016	10	43	603	8
	Zn	66	0.875	ug/L	0.029	3	184	1977	1
	Zn	67	0.795	ug/L	0.065	8	30	305	6
	Zn	68	0.840	ug/L	0.011	1	181	1412	2
	As	75	0.045	ug/L	0.009	19	180	264	5
	As-1	75	0.137	ug/L	0.121	88	11796	11745	0
	Se	82	0.001	ug/L	0.027	2587	0	0	1604
	Se	78	0.387	ug/L	0.464	119	11951	11828	0
[	Mo	98	0.020	ug/L	0.003	15	6	95	15
	Y	89		ug/L			356764	354502	2
	Kr	83		ug/L			473	488	2
[>	In	115		ug/L			987844	969123	1
	Ag	107	0.005	ug/L	0.004	81	15	75	66
	Cd	111	0.007	ug/L	0.002	26	64	97	9
	Cd	114	0.003	ug/L	0.003	92	38	76	47
	Sb	121	0.039	ug/L	0.004	9	27	549	10
	Sb	123	0.037	ug/L	0.005	14	21	396	15
	Ba	135	0.034	ug/L	0.005	13	16	160	10
[	Ba	137	0.036	ug/L	0.001	2	32	298	1
[>	Tb	159		ug/L			1186851	1148237	0
	Tl	205	0.026	ug/L	0.013	48	48	967	46
	Pb	208	0.006	ug/L	0.001	15	169	443	9
	Bi	209		ug/L			2692417	2615287	0
	Th	232	0.117	ug/L	0.011	9	61	4887	9
[	U	238	0.002	ug/L	0.001	35	6	97	33

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:17:13
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	954764	1
[	Be	9	24.766	ug/L	0.275	1	11	77567	1
	C	13		ug/L			80899	89909	1
	Cl	37		ug/L			4140238	4474851	2
[>	Sc	45		ug/L			1070141	1080914 ✓	0
[	Al	27	5042.650	ug/L	64.502	1	6167	170808406	1
[	V	51	24.989	ug/L	0.471	1	8787	521392	1
[	V-1	51	24.932	ug/L	0.263	1	45	513582	1
[	Cr	52	25.357	ug/L	0.244	0	25797	455097	0
[	Cr	53	25.159	ug/L	0.823	3	119	48928	3
[	Fe	54	4845.050	ug/L	58.222	1	71682	5844247	1
[	Fe	57	5018.085	ug/L	48.896	0	9627	2362317	1
[	Mn	55	24.557	ug/L	0.406	1	492	579546	1
[	Co	59	25.751	ug/L	0.560	2	78	439931	1
[>	Ge	72		ug/L			580442	560883 ✓	1
[	Ni	60	25.863	ug/L	0.592	2	28	91268	0
[	Ni	62	26.729	ug/L	0.572	2	309	13489	0
[	Cu	63	26.030	ug/L	0.510	1	301	205016	0
[	Cu	65	26.541	ug/L	0.397	1	43	94058	2
[	Zn	66	83.189	ug/L	1.871	2	184	169895	1
[	Zn	67	77.985	ug/L	1.479	1	30	26885	0
[	Zn	68	82.212	ug/L	2.377	2	181	120223	2
[	As	75	28.442	ug/L	0.825	2	180	55516	1
[	As-1	75	28.848	ug/L	0.746	2	11796	67594	1
[	Se	82	79.427	ug/L	1.877	2	0	16098	1
[	Se	78	80.634	ug/L	1.680	2	11951	53318	1
[	Mo	98	0.013	ug/L	0.001	7	6	65	5
	Y	89		ug/L			356764	345199	1
	Kr	83		ug/L			473	500	5
[>	In	115		ug/L			987844	959125	0
[	Ag	107	24.930	ug/L	0.194	0	15	284385	1
[	Cd	111	24.801	ug/L	0.334	1	64	113629	1
[	Cd	114	25.128	ug/L	0.461	1	38	287155	1
[	Sb	121	0.028	ug/L	0.004	15	27	406	13
[	Sb	123	0.030	ug/L	0.005	16	21	327	14
[	Ba	135	25.770	ug/L	0.439	1	16	108721	0
[	Ba	137	25.769	ug/L	0.359	1	32	187693	0
[>	Tb	159		ug/L			1186851	1147904	0
[	Tl	205	25.086	ug/L	0.326	1	48	886840	0
[	Pb	208	25.585	ug/L	0.321	1	169	1140636	0
[	Bi	209		ug/L			2692417	2531814	0
[	Th	232	25.213	ug/L	0.475	1	61	1038232	1
[	U	238	24.425	ug/L	0.332	1	6	1100537	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:21:27
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\112012.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			960865	973406	4
Be	9	0.015	ug/L	0.001	9	11	59	5
C	13		ug/L			80899	106055	0
Cl	37		ug/L			4140238	5071705	3
Sc	45		ug/L			1070141	1114854	1
Al	27	8.857	ug/L	0.079	0	6167	315839	1
V	51	1.396	ug/L	0.024	1	8787	38683	1
V-1	51	1.567	ug/L	0.026	1	45	33336	0
Cr	52	0.439	ug/L	0.013	2	25797	34533	0
Cr	53	1.034	ug/L	0.101	9	119	2192	8
Fe	54	526.950	ug/L	12.981	2	71682	721964	0
Fe	57	518.843	ug/L	6.983	1	9627	260877	0
Mn	55	75.242	ug/L	0.468	0	492	1830326	0
Co	59	0.490	ug/L	0.015	2	78	8711	3
Ge	72		ug/L			580442	525731	1
Ni	60	1.576	ug/L	0.078	4	28	5236	3
Ni	62	1.728	ug/L	0.202	11	309	1079	8
Cu	63	5.111	ug/L	0.139	2	301	37945	0
Cu	65	4.101	ug/L	0.151	3	43	13650	2
Zn	66	142.728	ug/L	3.022	2	184	273086	1
Zn	67	125.960	ug/L	4.052	3	30	40676	1
Zn	68	139.565	ug/L	4.895	3	181	191139	2
As	75	112.558	ug/L	3.454	3	180	205421	1
As-1	75	112.612	ug/L	3.618	3	11796	216266	1
Se	82	0.781	ug/L	0.058	7	0	148	9
Se	78	1.567	ug/L	0.634	40	11951	11582	1
Mo	98	0.929	ug/L	0.030	3	6	3958	1
Y	89		ug/L			356764	343621	1
Kr	83		ug/L			473	501	3
In	115		ug/L			987844	945709	0
Ag	107	0.013	ug/L	0.001	11	15	157	9
Cd	111	0.014	ug/L	0.006	42	64	124	21
Cd	114	0.012	ug/L	0.001	7	38	176	5
Sb	121	0.294	ug/L	0.004	1	27	3913	1
Sb	123	0.293	ug/L	0.003	0	21	2945	0
Ba	135	4.782	ug/L	0.060	1	16	19905	0
Ba	137	4.783	ug/L	0.009	0	32	34380	0
Tb	159		ug/L			1186851	1166557	0
Tl	205	0.026	ug/L	0.004	16	48	983	15
Pb	208	0.110	ug/L	0.003	2	169	5146	1
Bi	209		ug/L			2692417	2291083	1
Th	232	0.312	ug/L	0.088	28	61	13116	28
U	238	0.361	ug/L	0.003	0	6	16548	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:25:42
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	1006245	0
	Be	9	0.003	ug/L	0.001	20	11	23	9
	C	13		ug/L			80899	120941	1
	Cl	37		ug/L			4140238	4934776	2
>	Sc	45		ug/L			1070141	1090318 ✓	0
	Al	27	7.217	ug/L	0.049	0	6167	252862	1
	V	51	0.203	ug/L	0.008	4	8787	13149	1
	V-1	51	0.389	ug/L	0.009	2	45	8136	1
	Cr	52	0.219	ug/L	0.022	10	25797	30030	1
	Cr	53	0.853	ug/L	0.020	2	119	1790	1
	Fe	54	⚠ 14.890	ug/L	1.067	7	71682	90929	1
	Fe	57	36.150	ug/L	0.963	2	9627	26905	2
	Mn	55	24.313	ug/L	0.070	0	492	578808	0
	Co	59	0.244	ug/L	0.006	2	78	4287	3
>	Ge	72		ug/L			580442	505513 ✓	1
	Ni	60	1.925	ug/L	0.058	3	28	6144	1
	Ni	62	1.745	ug/L	0.172	9	309	1045	5
	Cu	63	3.398	ug/L	0.081	2	301	24344	1
	Cu	65	2.414	ug/L	0.087	3	43	7740	1
	Zn	66	4.610	ug/L	0.241	5	184	8634	4
	Zn	67	3.779	ug/L	0.141	3	30	1199	2
	Zn	68	5.186	ug/L	0.279	5	181	6980	3
	As	75	4.050	ug/L	0.120	2	180	7258	1
	As-1	75	4.303	ug/L	0.265	6	11796	17825	0
	Se	82	0.698	ug/L	0.104	14	0	127	14
	Se	78	1.822	ug/L	0.610	33	11951	11256	0
	Mo	98	1.659	ug/L	0.021	1	6	6796	2
	Y	89		ug/L			356764	349417	1
	Kr	83		ug/L			473	508	2
>	In	115		ug/L			987844	943526	0
	Ag	107	0.003	ug/L	0.003	86	15	48	59
	Cd	111	0.009	ug/L	0.001	16	64	101	6
	Cd	114	0.005	ug/L	0.004	81	38	89	46
	Sb	121	0.231	ug/L	0.007	3	27	3075	2
	Sb	123	0.232	ug/L	0.009	4	21	2324	3
	Ba	135	1.203	ug/L	0.031	2	16	5006	1
	Ba	137	1.206	ug/L	0.001	0	32	8668	0
>	Tb	159		ug/L			1186851	1161665	1
	Tl	205	0.011	ug/L	0.002	16	48	446	13
	Pb	208	0.046	ug/L	0.001	2	169	2220	2
	Bi	209		ug/L			2692417	2298488	0
	Th	232	0.073	ug/L	0.003	3	61	3091	2
	U	238	0.028	ug/L	0.002	7	6	1276	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ADUP REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:29:56
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\112012.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	1031414	1
[	Be	9	0.002	ug/L	0.001	48	11	20	18
	C	13		ug/L			80899	92478	1
	Cl	37		ug/L			4140238	4422480	1
[>	Sc	45		ug/L			1070141	1055708	2
[	Al	27	0.547	ug/L	0.039	7	6167	24206	7
[	V	51	0.111	ug/L	0.015	13	8787	10888	2
[	V-1	51	0.154	ug/L	0.004	2	45	3150	0
[	Cr	52	0.033	ug/L	0.056	169	25797	25990	2
[	Cr	53	0.182	ug/L	0.016	8	119	462	3
[	Fe	54	2.886	ug/L	2.346	81	71682	74049	3
[	Fe	57	5.975	ug/L	1.536	25	9627	12226	4
[	Mn	55	6.993	ug/L	0.233	3	492	161438	1
[	Co	59	0.053	ug/L	0.001	1	78	956	1
[>	Ge	72		ug/L			580442	543740	2
[	Ni	60	0.145	ug/L	0.002	1	28	523	0
[	Ni	62	0.142	ug/L	0.058	40	309	358	9
[	Cu	63	0.560	ug/L	0.024	4	301	4547	1
[	Cu	65	0.481	ug/L	0.033	6	43	1689	4
[	Zn	66	15.002	ug/L	0.681	4	184	29828	2
[	Zn	67	13.332	ug/L	0.316	2	30	4481	4
[	Zn	68	14.926	ug/L	0.217	1	181	21296	1
[	As	75	9.888	ug/L	0.367	3	180	18813	1
[	As-1	75	9.900	ug/L	0.540	5	11796	29733	1
[	Se	82	0.104	ug/L	0.072	68	0	20	68
[	Se	78	0.236	ug/L	0.646	273	11951	11309	0
[	Mo	98	0.097	ug/L	0.003	2	6	431	2
	Y	89		ug/L			356764	345370	0
	Kr	83		ug/L			473	473	2
[>	In	115		ug/L			987844	982724	0
[	Ag	107	0.004	ug/L	0.005	116	15	61	86
[	Cd	111	0.007	ug/L	0.002	25	64	99	8
[	Cd	114	0.002	ug/L	0.002	79	38	63	29
[	Sb	121	0.037	ug/L	0.004	10	27	539	9
[	Sb	123	0.038	ug/L	0.002	6	21	415	5
[	Ba	135	0.419	ug/L	0.006	1	16	1828	1
[	Ba	137	0.426	ug/L	0.016	3	32	3213	2
[>	Tb	159		ug/L			1186851	1161037	1
[	Tl	205	0.007	ug/L	0.001	14	48	282	11
[	Pb	208	0.006	ug/L	0.001	12	169	418	6
[	Bi	209		ug/L			2692417	2586905	0
[	Th	232	0.010	ug/L	0.002	18	61	495	14
[	U	238	0.036	ug/L	0.002	4	6	1629	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 A REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:34:10
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\112012.cal

dcl

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	1006613	2
[	Be	9	0.001	ug/L	0.002	284	11	14	40
	C	13		ug/L			80899	91631	0
	Cl	37		ug/L			4140238	4279259	3
[>	Sc	45		ug/L			1070141	1061021	3
[	Al	27	0.470	ug/L	0.033	6	6167	21727	1
[	V	51	0.104	ug/L	0.026	25	8787	10788	1
[	V-1	51	0.153	ug/L	0.007	4	45	3128	1
[	Cr	52	-0.006	ug/L	0.081	1429	25797	25456	2
[	Cr	53	0.162	ug/L	0.017	10	119	427	4
[	Fe	54	0.959	ug/L	2.505	261	71682	72163	3
[	Fe	57	6.446	ug/L	0.749	11	9627	12508	2
[	Mn	55	6.974	ug/L	0.251	3	492	161794	0
[	Co	59	0.052	ug/L	0.005	9	78	951	5
[>	Ge	72		ug/L			580442	536595	2
[	Ni	60	0.165	ug/L	0.015	9	28	583	6
[	Ni	62	0.050	ug/L	0.026	52	309	310	5
[	Cu	63	0.526	ug/L	0.011	2	301	4239	1
[	Cu	65	0.461	ug/L	0.016	3	43	1602	2
[	Zn	66	15.182	ug/L	0.379	2	184	29795	0
[	Zn	67	13.291	ug/L	0.596	4	30	4406	3
[	Zn	68	15.016	ug/L	0.374	2	181	21139	1
[	As	75	10.103	ug/L	0.292	2	180	18970	1
[	As-1	75	10.212	ug/L	0.423	4	11796	29929	0
[	Se	82	0.072	ug/L	0.060	83	0	13	80
[	Se	78	0.604	ug/L	0.607	100	11951	11343	0
[	Mo	98	0.101	ug/L	0.003	3	6	445	1
	Y	89		ug/L			356764	344531	1
	Kr	83		ug/L			473	488	3
[>	In	115		ug/L			987844	978623	0
[	Ag	107	0.001	ug/L	0.000	15	15	24	6
[	Cd	111	0.006	ug/L	0.002	27	64	90	8
[	Cd	114	0.001	ug/L	0.001	82	38	55	25
[	Sb	121	0.034	ug/L	0.002	5	27	493	4
[	Sb	123	0.037	ug/L	0.002	6	21	407	5
[	Ba	135	0.440	ug/L	0.010	2	16	1908	2
[	Ba	137	0.426	ug/L	0.004	0	32	3200	0
[>	Tb	159		ug/L			1186851	1149487	0
[	Tl	205	0.005	ug/L	0.001	17	48	212	13
[	Pb	208	0.005	ug/L	0.000	5	169	379	4
[	Bi	209		ug/L			2692417	2587773	0
[	Th	232	0.010	ug/L	0.001	11	61	484	10
[	U	238	0.036	ug/L	0.000	0	6	1609	1

ICP-MS Quantitative Analysis - Summary Report

Del

Sample ID: VS84 ASPK REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:38:24
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	988849	1
	Be	9	2.472	ug/L	0.100	4	11	8027	2
	C	13		ug/L			80899	88551	1
	Cl	37		ug/L			4140238	4164652	1
>	Sc	45		ug/L			1070141	1060159	0
	Al	27	500.912	ug/L	6.672	1	6167	16647430	1
	V	51	2.471	ug/L	0.049	1	8787	58416	1
	V-1	51	2.521	ug/L	0.052	2	45	50965	2
	Cr	52	2.401	ug/L	0.069	2	25797	65403	1
	Cr	53	2.570	ug/L	0.013	0	119	5007	0
	Fe	54	463.611	ug/L	2.169	0	71682	612695	0
	Fe	57	451.577	ug/L	9.695	2	9627	217173	1
	Mn	55	9.057	ug/L	0.296	3	492	209934	3
	Co	59	2.486	ug/L	0.012	0	78	41729	0
>	Ge	72		ug/L			580442	535840	0
	Ni	60	2.749	ug/L	0.019	0	28	9292	0
	Ni	62	2.600	ug/L	0.022	0	309	1511	1
	Cu	63	3.176	ug/L	0.066	2	301	24144	1
	Cu	65	3.126	ug/L	0.053	1	43	10618	2
	Zn	66	23.080	ug/L	0.499	2	184	45157	1
	Zn	67	20.844	ug/L	0.379	1	30	6886	0
	Zn	68	22.617	ug/L	0.202	0	181	31720	0
	As	75	12.973	ug/L	0.173	1	180	24286	0
	As-1	75	12.968	ug/L	0.240	1	11796	35027	0
	Se	82	8.673	ug/L	0.090	1	0	1679	0
	Se	78	8.704	ug/L	0.310	3	11951	15340	0
	Mo	98	0.094	ug/L	0.002	2	6	414	1
	Y	89		ug/L			356764	347521	1
	Kr	83		ug/L			473	467	3
>	In	115		ug/L			987844	984140	0
	Ag	107	1.010	ug/L	0.007	0	15	11835	0
	Cd	111	2.503	ug/L	0.009	0	64	11825	0
	Cd	114	2.500	ug/L	0.046	1	38	29343	1
	Sb	121	0.034	ug/L	0.003	10	27	499	10
	Sb	123	0.035	ug/L	0.003	7	21	381	7
	Ba	135	2.891	ug/L	0.038	1	16	12530	0
	Ba	137	2.854	ug/L	0.053	1	32	21356	1
>	Tb	159		ug/L			1186851	1150485	1
	Tl	205	2.447	ug/L	0.055	2	48	86727	0
	Pb	208	2.535	ug/L	0.046	1	169	113414	0
	Bi	209		ug/L			2692417	2550607	0
	Th	232	2.311	ug/L	0.070	3	61	95409	2
	U	238	2.372	ug/L	0.057	2	6	107083	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:42:38
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	974940	0
[	Be	9	0.020	ug/L	0.001	3	11	77	3
	C	13		ug/L			80899	123708	1
	Cl	37		ug/L			4140238	4963901	2
[>	Sc	45		ug/L			1070141	1086509✓	0
[	Al	27	3.327	ug/L	0.009	0	6167	119540	0
[	V	51	1.161	ug/L	0.038	3	8787	32845	1
[	V-1	51	1.357	ug/L	0.051	3	45	28128	3
[	Cr	52	0.412	ug/L	0.036	8	25797	33205	2
[	Cr	53	1.089	ug/L	0.017	1	119	2243	0
[	Fe	54	35.473	ug/L	3.076	8	71682	115256	3
[	Fe	57	46.439	ug/L	3.865	8	9627	31651	5
[	Mn	55	63.938	ug/L	0.991	1	492	1516067	2
[	Co	59	0.464	ug/L	0.015	3	78	8050	3
[>	Ge	72		ug/L			580442	502088✓	2
[	Ni	60	1.499	ug/L	0.007	0	28	4758	1
[	Ni	62	1.007	ug/L	0.112	11	309	712	6
[	Cu	63	5.688	ug/L	0.141	2	301	40301	0
[	Cu	65	4.618	ug/L	0.087	1	43	14677	0
[	Zn	66	135.465	ug/L	3.979	2	184	247500	1
[	Zn	67	117.520	ug/L	2.566	2	30	36249	0
[	Zn	68	129.739	ug/L	2.972	2	181	169705	0
[	As	75	96.049	ug/L	1.651	1	180	167454	0
[	As-1	75	96.150	ug/L	1.720	1	11796	177863	0
[	Se	82	0.746	ug/L	0.021	2	0	135	0
[	Se	78	1.710	ug/L	0.323	18	11951	11129	1
[	Mo	98	1.063	ug/L	0.027	2	6	4325	1
	Y	89		ug/L			356764	348035	2
	Kr	83		ug/L			473	520	4
[>	In	115		ug/L			987844	943357	0
[	Ag	107	0.002	ug/L	0.000	17	15	36	10
[	Cd	111	0.006	ug/L	0.004	67	64	88	19
[	Cd	114	0.002	ug/L	0.002	64	38	62	26
[	Sb	121	0.284	ug/L	0.004	1	27	3767	0
[	Sb	123	0.286	ug/L	0.010	3	21	2860	2
[	Ba	135	4.281	ug/L	0.048	1	16	17778	1
[	Ba	137	4.270	ug/L	0.079	1	32	30617	1
[>	Tb	159		ug/L			1186851	1158486	0
[	Tl	205	0.009	ug/L	0.001	13	48	352	11
[	Pb	208	0.039	ug/L	0.001	3	169	1928	2
[	Bi	209		ug/L			2692417	2286535	0
[	Th	232	0.112	ug/L	0.016	13	61	4733	13
[	U	238	0.343	ug/L	0.004	1	6	15590	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:47:56
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	985606	0
	Be	9	0.013	ug/L	0.001	7	11	54	6
	C	13		ug/L			80899	125245	1
	Cl	37		ug/L			4140238	4787840	3
>	Sc	45		ug/L			1070141	1046266 ✓	3
	Al	27	3.911	ug/L	0.183	4	6167	134131	1
	V	51	1.209	ug/L	0.072	5	8787	32572	2
	V-1	51	1.397	ug/L	0.070	5	45	27874	2
	Cr	52	0.493	ug/L	0.073	14	25797	33274	0
	Cr	53	1.142	ug/L	0.079	6	119	2257	3
	Fe	54	39.194	ug/L	4.568	11	71682	115165	1
	Fe	57	50.635	ug/L	0.824	1	9627	32383	2
	Mn	55	66.939	ug/L	1.448	2	492	1527808	2
	Co	59	0.480	ug/L	0.005	1	78	8009	2
>	Ge	72		ug/L			580442	498401	1
	Ni	60	1.555	ug/L	0.021	1	28	4899	0
	Ni	62	0.919	ug/L	0.048	5	309	669	4
	Cu	63	5.399	ug/L	0.180	3	301	37985	2
	Cu	65	4.341	ug/L	0.101	2	43	13698	1
	Zn	66	134.987	ug/L	0.770	0	184	244911	1
	Zn	67	119.301	ug/L	2.159	1	30	36536	1
	Zn	68	128.338	ug/L	2.244	1	181	166682	1
	As	75	96.564	ug/L	0.759	0	180	167151	0
	As-1	75	96.626	ug/L	0.725	0	11796	177420	0
	Se	82	0.793	ug/L	0.088	11	0	142	10
	Se	78	1.623	ug/L	0.064	3	11951	11009	1
	Mo	98	1.060	ug/L	0.014	1	6	4283	1
	Y	89		ug/L			356764	337887	0
	Kr	83		ug/L			473	522	3
>	In	115		ug/L			987844	939870	1
	Ag	107	0.002	ug/L	0.000	12	15	37	7
	Cd	111	0.010	ug/L	0.001	11	64	105	3
	Cd	114	0.003	ug/L	0.000	9	38	72	4
	Sb	121	0.286	ug/L	0.003	0	27	3780	0
	Sb	123	0.285	ug/L	0.008	2	21	2842	3
	Ba	135	4.303	ug/L	0.050	1	16	17802	0
	Ba	137	4.374	ug/L	0.038	0	32	31247	0
>	Tb	159		ug/L			1186851	1141213	1
	Tl	205	0.008	ug/L	0.001	15	48	332	12
	Pb	208	0.041	ug/L	0.001	2	169	1963	2
	Bi	209		ug/L			2692417	2296553	0
	Th	232	0.049	ug/L	0.001	2	61	2060	2
	U	238	0.345	ug/L	0.002	0	6	15444	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS84 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:52:10
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	961347	2
[	Be	9	22.629	ug/L	0.614	2	11	71334	0
	C	13		ug/L			80899	100330	3
	Cl	37		ug/L			4140238	4824752	3
[>	Sc	45		ug/L			1070141	1006719 ✓	0
	Al	27	5095.657	ug/L	80.578	1	6167	160754352	1
	V	51	25.047	ug/L	0.043	0	8787	486706	0
	V-1	51	24.964	ug/L	0.144	0	45	478928	0
	Cr	52	24.690	ug/L	0.850	3	25797	413327	2
	Cr	53	24.412	ug/L	0.712	2	119	44218	2
	Fe	54	4662.445	ug/L	101.337	2	71682	5240582	2
	Fe	57	4336.605	ug/L	125.895	2	9627	1902478	2
	Mn	55	87.838	ug/L	1.348	1	492	1929473	1
[	Co	59	23.835	ug/L	0.258	1	78	379268	1
[>	Ge	72		ug/L			580442	485155 ✓	0
	Ni	60	27.439	ug/L	0.216	0	28	83769	0
	Ni	62	26.305	ug/L	1.045	3	309	11487	3
	Cu	63	31.450	ug/L	0.088	0	301	214245	0
	Cu	65	30.321	ug/L	0.501	1	43	92938	1
	Zn	66	205.145	ug/L	3.002	1	184	362229	1
	Zn	67	181.842	ug/L	2.914	1	30	54197	1
	Zn	68	202.323	ug/L	3.738	1	181	255702	1
	As	75	125.159	ug/L	0.448	0	180	210853	0
	As-1	75	123.495	ug/L	0.744	0	11796	217993	0
	Se	82	81.975	ug/L	0.467	0	0	14373	0
	Se	78	76.053	ug/L	1.459	1	11951	44069	1
[	Mo	98	1.081	ug/L	0.019	1	6	4251	1
	Y	89		ug/L			356764	334568	1
	Kr	83		ug/L			473	566	1
[>	In	115		ug/L			987844	924737	0
	Ag	107	10.412	ug/L	0.228	2	15	114539	2
	Cd	111	23.693	ug/L	0.236	0	64	104662	0
	Cd	114	23.451	ug/L	0.167	0	38	258403	0
	Sb	121	0.288	ug/L	0.000	0	27	3750	0
	Sb	123	0.282	ug/L	0.006	2	21	2766	2
	Ba	135	29.699	ug/L	0.248	0	16	120808	0
[	Ba	137	30.017	ug/L	0.432	1	32	210800	1
[>	Tb	159		ug/L			1186851	1138306	0
	Tl	205	23.149	ug/L	0.272	1	48	811559	1
	Pb	208	23.562	ug/L	0.275	1	169	1041664	0
	Bi	209		ug/L			2692417	2232090	0
	Th	232	23.694	ug/L	0.132	0	61	967620	0
[	U	238	23.591	ug/L	0.401	1	6	1054066	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 12:56:26
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	877969	2
	Be	9	49.511	ug/L	1.006	2	11	142543	0
	C	13		ug/L			80899	79362	0
	Cl	37		ug/L			4140238	4054642	3
>	Sc	45		ug/L			1070141	890170	2
	Al	27	5606.519	ug/L	73.927	1	6167	156361647	1
	V	51	48.080	ug/L	1.001	2	8787	819122	1
	V-1	51	47.977	ug/L	1.018	2	45	813582	1
	Cr	52	49.404	ug/L	1.955	3	25797	709385	1
	Cr	53	49.036	ug/L	1.898	3	119	78388	1
	Fe	54	4981.891	ug/L	102.623	2	71682	4945389	1
	Fe	57	4795.705	ug/L	248.596	5	9627	1857994	2
	Mn	55	48.403	ug/L	0.885	1	492	940515	4
	Co	59	50.720	ug/L	1.952	3	78	713061	1
>	Ge	72		ug/L			580442	488352	0
	Ni	60	49.685	ug/L	1.201	2	28	152664	2
	Ni	62	49.173	ug/L	0.705	1	309	21392	1
	Cu	63	49.976	ug/L	1.046	2	301	342531	1
	Cu	65	49.405	ug/L	1.415	2	43	152413	3
	Zn	66	49.608	ug/L	1.361	2	184	88287	2
	Zn	67	48.941	ug/L	1.793	3	30	14702	3
	Zn	68	51.418	ug/L	0.332	0	181	65530	0
	As	75	50.947	ug/L	0.356	0	180	86484	0
	As-1	75	50.218	ug/L	0.209	0	11796	95118	0
	Se	82	53.488	ug/L	0.484	0	0	9440	0
	Se	78	50.814	ug/L	0.523	1	11951	32977	0
	Mo	98	55.375	ug/L	1.104	1	6	219019	1
	Y	89		ug/L			356764	315939	0
	Kr	83		ug/L			473	500	2
>	In	115		ug/L			987844	924935	1
	Ag	107	55.467	ug/L	0.786	1	15	610112	1
	Cd	111	51.768	ug/L	1.132	2	64	228622	0
	Cd	114	50.816	ug/L	0.738	1	38	559994	1
	Sb	121	50.971	ug/L	0.772	1	27	658440	0
	Sb	123	50.874	ug/L	0.964	1	21	495958	0
	Ba	135	48.989	ug/L	0.646	1	16	199294	0
	Ba	137	49.028	ug/L	0.605	1	32	344342	0
>	Tb	159		ug/L			1186851	1115719	0
	Tl	205	46.789	ug/L	0.506	1	48	1607671	0
	Pb	208	48.492	ug/L	0.480	0	169	2101097	0
	Bi	209		ug/L			2692417	2436813	1
	Th	232	46.758	ug/L	0.436	0	61	1871536	0
	U	238	50.425	ug/L	0.710	1	6	2208245	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:03:25
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	935061 ✓	2
	Be	9	0.000	ug/L	0.002	503	11	12	39
	C	13		ug/L			80899	84476	2
	Cl	37		ug/L			4140238	4284028	6
>	Sc	45		ug/L			1070141	983102 ✓	0
	Al	27	0.087	ug/L	0.077	88	6167	8337	28
	V	51	0.001	ug/L	0.011	1695	8787	8084	2
	V-1	51	0.007	ug/L	0.001	18	45	167	14
	Cr	52	0.012	ug/L	0.036	304	25797	23879	1
	Cr	53	0.032	ug/L	0.004	13	119	166	4
	Fe	54	-1.566	ug/L	1.005	64	71682	64158	2
	Fe	57	0.043	ug/L	0.380	892	9627	8863	2
	Mn	55	-0.000	ug/L	0.002	3443	492	451	8
	Co	59	0.001	ug/L	0.001	204	78	80	22
>	Ge	72		ug/L			580442	517417 ✓	0
	Ni	60	0.000	ug/L	0.001	138	28	27	7
	Ni	62	-0.016	ug/L	0.063	398	309	268	10
	Cu	63	-0.007	ug/L	0.001	13	301	218	2
	Cu	65	0.004	ug/L	0.001	20	43	53	5
	Zn	66	0.018	ug/L	0.005	25	184	198	3
	Zn	67	0.015	ug/L	0.012	80	30	32	11
	Zn	68	0.014	ug/L	0.016	116	181	180	12
	As	75	0.029	ug/L	0.008	28	180	212	6
	As-1	75	0.279	ug/L	0.010	3	11796	11017	0
	Se	82	-0.014	ug/L	0.016	109	0	-2	116
	Se	78	1.011	ug/L	0.037	3	11951	11137	0
	Mo	98	0.009	ug/L	0.001	7	6	42	7
	Y	89		ug/L			356764	323093	1
	Kr	83		ug/L			473	475	1
>	In	115		ug/L			987844	935116 ✓	1
	Ag	107	0.003	ug/L	0.001	29	15	47	19
	Cd	111	0.007	ug/L	0.001	17	64	90	6
	Cd	114	0.001	ug/L	0.001	74	38	45	16
	Sb	121	0.063	ug/L	0.007	10	27	845	9
	Sb	123	0.062	ug/L	0.007	11	21	630	9
	Ba	135	0.005	ug/L	0.001	16	16	35	10
	Ba	137	0.004	ug/L	0.002	36	32	61	19
>	Tb	159		ug/L			1186851	1109629 ✓	0
	Tl	205	0.009	ug/L	0.001	14	48	341	12
	Pb	208	0.001	ug/L	0.001	62	169	216	17
	Bi	209		ug/L			2692417	2545340	0
	Th	232	0.113	ug/L	0.006	5	61	4557	5
	U	238	0.003	ug/L	0.001	29	6	133	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:09:43
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	943427	1
[	Be	9	0.008	ug/L	0.002	22	11	37	17
	C	13		ug/L			80899	85191	1
	Cl	37		ug/L			4140238	4404045	2
[>	Sc	45		ug/L			1070141	1036177	0
[	Al	27	203.244	ug/L	1.178	0	6167	6605256	0
[	V	51	0.381	ug/L	0.009	2	8787	15997	1
[	V-1	51	0.397	ug/L	0.003	0	45	7889	1
[	Cr	52	0.273	ug/L	0.012	4	25797	29405	1
[	Cr	53	0.330	ug/L	0.022	6	119	729	4
[	Fe	54	263.069	ug/L	4.941	1	71682	369801	0
[	Fe	57	255.293	ug/L	6.086	2	9627	124059	2
[	Mn	55	10.975	ug/L	0.144	1	492	248541	0
[	Co	59	0.096	ug/L	0.003	3	78	1648	3
[>	Ge	72		ug/L			580442	534014	1
[	Ni	60	0.282	ug/L	0.021	7	28	972	6
[	Ni	62	0.194	ug/L	0.041	21	309	376	3
[	Cu	63	0.605	ug/L	0.021	3	301	4807	2
[	Cu	65	0.604	ug/L	0.025	4	43	2074	2
[	Zn	66	9.638	ug/L	0.174	1	184	18892	1
[	Zn	67	8.642	ug/L	0.308	3	30	2861	3
[	Zn	68	9.368	ug/L	0.124	1	181	13192	1
[	As	75	0.440	ug/L	0.018	4	180	980	2
[	As-1	75	0.632	ug/L	0.144	22	11796	12022	0
[	Se	82	-0.037	ug/L	0.009	23	0	-7	22
[	Se	78	0.757	ug/L	0.497	65	11951	11366	0
[	Mo	98	0.012	ug/L	0.003	21	6	59	18
	Y	89		ug/L			356764	338232	1
	Kr	83		ug/L			473	480	3
[>	In	115		ug/L			987844	965543	0
[	Ag	107	0.012	ug/L	0.002	15	15	153	13
[	Cd	111	0.224	ug/L	0.004	1	64	1097	1
[	Cd	114	0.227	ug/L	0.006	2	38	2649	2
[	Sb	121	0.087	ug/L	0.006	6	27	1206	5
[	Sb	123	0.087	ug/L	0.001	1	21	908	1
[	Ba	135	2.471	ug/L	0.026	1	16	10510	0
[	Ba	137	2.471	ug/L	0.024	0	32	18149	0
[>	Tb	159		ug/L			1186851	1143740	0
[	Tl	205	0.015	ug/L	0.002	12	48	575	11
[	Pb	208	11.581	ug/L	0.122	1	169	514501	0
[	Bi	209		ug/L			2692417	2620608	0
[	Th	232	0.174	ug/L	0.004	2	61	7186	1
[	U	238	0.014	ug/L	0.000	2	6	653	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:13:57
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	964019	1
[	Be	9	0.039	ug/L	0.005	12	11	135	12
	C	13		ug/L			80899	88248	3
	Cl	37		ug/L			4140238	4275017	1
[>	Sc	45		ug/L			1070141	1046148	1
[	Al	27	1016.113	ug/L	34.880	3	6167	33311141	2
[	V	51	1.868	ug/L	0.020	1	8787	45675	1
[	V-1	51	1.896	ug/L	0.041	2	45	37843	1
[	Cr	52	1.426	ug/L	0.076	5	25797	48570	3
[	Cr	53	1.528	ug/L	0.078	5	119	2983	3
[	Fe	54	1326.166	ug/L	15.444	1	71682	1598960	0
[	Fe	57	1230.634	ug/L	5.060	0	9627	567787	0
[	Mn	55	53.783	ug/L	1.560	2	492	1227687	1
[	Co	59	0.455	ug/L	0.007	1	78	7597	2
[>	Ge	72		ug/L			580442	544217	1
[	Ni	60	1.307	ug/L	0.053	4	28	4501	2
[	Ni	62	1.266	ug/L	0.070	5	309	896	3
[	Cu	63	2.860	ug/L	0.060	2	301	22107	1
[	Cu	65	2.868	ug/L	0.082	2	43	9899	3
[	Zn	66	45.315	ug/L	1.446	3	184	89875	2
[	Zn	67	41.406	ug/L	0.270	0	30	13865	0
[	Zn	68	44.872	ug/L	1.275	2	181	63741	2
[	As	75	2.154	ug/L	0.004	0	180	4237	0
[	As-1	75	2.230	ug/L	0.072	3	11796	15274	0
[	Se	82	0.041	ug/L	0.107	262	0	8	255
[	Se	78	0.382	ug/L	0.229	59	11951	11397	0
[	Mo	98	0.045	ug/L	0.004	8	6	202	8
	Y	89		ug/L			356764	351960	1
	Kr	83		ug/L			473	475	8
[>	In	115		ug/L			987844	979917	0
[	Ag	107	0.056	ug/L	0.003	5	15	663	5
[	Cd	111	1.094	ug/L	0.007	0	64	5181	0
[	Cd	114	1.084	ug/L	0.030	2	38	12691	2
[	Sb	121	0.338	ug/L	0.005	1	27	4651	1
[	Sb	123	0.350	ug/L	0.012	3	21	3639	3
[	Ba	135	11.949	ug/L	0.184	1	16	51514	1
[	Ba	137	12.006	ug/L	0.051	0	32	89366	0
[>	Tb	159		ug/L			1186851	1147031	0
[	Tl	205	0.054	ug/L	0.000	0	48	1936	1
[	Pb	208	57.340	ug/L	0.427	0	169	2554272	0
[	Bi	209		ug/L			2692417	2638976	1
[	Th	232	0.690	ug/L	0.005	0	61	28437	0
[	U	238	0.069	ug/L	0.003	3	6	3121	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:18:11
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			960865	983093	0
[	**Be**	**9**	**0.045**	ug/L	0.003	7	11	156	6
	C	**13**		ug/L			80899	88977	1
	Cl	**37**		ug/L			4140238	4327403	0
[>	**Sc**	**45**		ug/L			1070141	1060071	0
[	**Al**	**27**	**1018.215**	ug/L	5.041	0	6167	33830318	0
[	**V**	**51**	**1.973**	ug/L	0.028	1	8787	48382	0
[	**V-1**	**51**	**1.980**	ug/L	0.027	1	45	40041	0
[	**Cr**	**52**	**1.527**	ug/L	0.050	3	25797	50898	2
[	**Cr**	**53**	**1.559**	ug/L	0.023	1	119	3084	1
[	**Fe**	**54**	**1369.714**	ug/L	5.793	0	71682	1671215	0
[	**Fe**	**57**	**1300.773**	ug/L	21.381	1	9627	607582	1
[	**Mn**	**55**	**52.390**	ug/L	1.260	2	492	1212058	2
[	**Co**	**59**	**0.456**	ug/L	0.016	3	78	7711	3
[>	**Ge**	**72**		ug/L			580442	544029	2
[	**Ni**	**60**	**1.411**	ug/L	0.017	1	28	4855	2
[	**Ni**	**62**	**1.373**	ug/L	0.047	3	309	947	3
[	**Cu**	**63**	**2.931**	ug/L	0.079	2	301	22637	1
[	**Cu**	**65**	**2.899**	ug/L	0.052	1	43	9998	1
[	**Zn**	**66**	**45.296**	ug/L	1.672	3	184	89782	2
[	**Zn**	**67**	**41.017**	ug/L	0.578	1	30	13729	1
[	**Zn**	**68**	**44.173**	ug/L	1.829	4	181	62709	2
[	**As**	**75**	**2.207**	ug/L	0.051	2	180	4334	1
[	**As-1**	**75**	**2.296**	ug/L	0.191	8	11796	15390	0
[	**Se**	**82**	**0.072**	ug/L	0.110	152	0	14	152
[	**Se**	**78**	**0.468**	ug/L	0.587	125	11951	11432	0
[	**Mo**	**98**	**0.047**	ug/L	0.004	8	6	214	10
	Y	**89**		ug/L			356764	353952	2
	Kr	**83**		ug/L			473	478	9
[>	**In**	**115**		ug/L			987844	977953	2
[	**Ag**	**107**	**0.057**	ug/L	0.001	1	15	672	1
[	**Cd**	**111**	**0.977**	ug/L	0.026	2	64	4623	1
[	**Cd**	**114**	**0.966**	ug/L	0.015	1	38	11287	0
[	**Sb**	**121**	**0.304**	ug/L	0.008	2	27	4184	1
[	**Sb**	**123**	**0.311**	ug/L	0.009	2	21	3229	0
[	**Ba**	**135**	**11.289**	ug/L	0.243	2	16	48557	0
[	**Ba**	**137**	**11.447**	ug/L	0.219	1	32	85014	0
[>	**Tb**	**159**		ug/L			1186851	1147575	0
[	**Tl**	**205**	**0.052**	ug/L	0.001	2	48	1872	1
[	**Pb**	**208**	**57.753**	ug/L	0.073	0	169	2573898	0
[	**Bi**	**209**		ug/L			2692417	2621282	0
[	**Th**	**232**	**0.586**	ug/L	0.013	2	61	24189	2
[	**U**	**238**	**0.069**	ug/L	0.001	1	6	3136	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:22:25
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	982560	1
[	Be	9	5.303	ug/L	0.050	0	11	17103	1
	C	13		ug/L			80899	89934	0
	Cl	37		ug/L			4140238	4332940	1
[>	Sc	45		ug/L			1070141	1053036	0
|	Al	27	1047.642	ug/L	21.485	2	6167	34575893	2
|	V	51	7.060	ug/L	0.141	1	8787	149727	2
|	V-1	51	7.060	ug/L	0.125	1	45	141726	2
|	Cr	52	6.823	ug/L	0.128	1	25797	137861	1
|	Cr	53	6.827	ug/L	0.090	1	119	13019	1
|	Fe	54	1374.992	ug/L	31.724	2	71682	1666138	1
|	Fe	57	1294.647	ug/L	35.457	2	9627	600696	2
|	Mn	55	61.542	ug/L	0.960	1	492	1414381	2
[	Co	59	5.636	ug/L	0.087	1	78	93865	2
[>	Ge	72		ug/L			580442	555201	1
|	Ni	60	6.587	ug/L	0.100	1	28	23034	1
|	Ni	62	6.578	ug/L	0.263	3	309	3509	2
|	Cu	63	7.944	ug/L	0.218	2	301	62125	1
|	Cu	65	8.244	ug/L	0.232	2	43	28942	2
|	Zn	66	60.563	ug/L	1.320	2	184	122483	1
|	Zn	67	55.677	ug/L	1.688	3	30	19006	1
|	Zn	68	59.873	ug/L	0.221	0	181	86721	1
|	As	75	8.095	ug/L	0.260	3	180	15763	1
|	As-1	75	8.000	ug/L	0.381	4	11796	26706	1
|	Se	82	17.248	ug/L	0.367	2	0	3460	0
|	Se	78	16.832	ug/L	0.979	5	11951	20059	1
[	Mo	98	4.787	ug/L	0.083	1	6	21528	1
	Y	89		ug/L			356764	361113	1
	Kr	83		ug/L			473	461	5
[>	In	115		ug/L			987844	983332	1
|	Ag	107	4.584	ug/L	0.080	1	15	53610	0
|	Cd	111	6.127	ug/L	0.073	1	64	28826	1
|	Cd	114	6.091	ug/L	0.087	1	38	71389	0
|	Sb	121	1.345	ug/L	0.016	1	27	18493	0
|	Sb	123	1.350	ug/L	0.019	1	21	14009	0
|	Ba	135	16.316	ug/L	0.094	0	16	70583	0
[	Ba	137	16.325	ug/L	0.146	0	32	121923	0
[>	Tb	159		ug/L			1186851	1149101	0
|	Tl	205	4.969	ug/L	0.025	0	48	175893	1
|	Pb	208	61.523	ug/L	0.661	1	169	2745439	0
|	Bi	209		ug/L			2692417	2635463	0
|	Th	232	5.162	ug/L	0.074	1	61	212850	0
[	U	238	4.937	ug/L	0.073	1	6	222662	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:26:39
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\112012.cal

Pb Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			960865	984293	2
Be	9	0.102	ug/L	0.002	1	11	340	2
C	13		ug/L			80899	96847	0
Cl	37		ug/L			4140238	4211998	2
Sc	45		ug/L			1070141	1074536	1
Al	27	3528.431	ug/L	101.745	2	6167	118775682	1
V	51	3.941	ug/L	0.034	0	8787	89172	1
V-1	51	3.973	ug/L	0.060	1	45	81384	0
Cr	52	2.297	ug/L	0.016	0	25797	64535	2
Cr	53	2.429	ug/L	0.076	3	119	4802	1
Fe	54	2432.281	ug/L	58.435	2	71682	2951733	1
Fe	57	2302.458	ug/L	39.719	1	9627	1082519	0
Mn	55	75.738	ug/L	1.186	1	492	1775635	1
Co	59	0.942	ug/L	0.035	3	78	16072	2
Ge	72		ug/L			580442	555247	2
Ni	60	2.334	ug/L	0.038	1	28	8179	1
Ni	62	2.486	ug/L	0.023	0	309	1510	2
Cu	63	8.956	ug/L	0.136	1	301	70015	0
Cu	65	8.895	ug/L	0.281	3	43	31218	1
Zn	66	106.315	ug/L	0.738	0	184	214911	1
Zn	67	97.761	ug/L	2.207	2	30	33357	2
Zn	68	104.342	ug/L	3.040	2	181	150957	0
As	75	7.154	ug/L	0.165	2	180	13951	0
As-1	75	7.140	ug/L	0.310	4	11796	25048	0
Se	82	0.107	ug/L	0.011	9	0	21	11
Se	78	0.182	ug/L	0.614	337	11951	11521	0
Mo	98	0.113	ug/L	0.011	9	6	513	8
Y	89		ug/L			356764	373626	1
Kr	83		ug/L			473	515	4
In	115		ug/L			987844	982636	0
Ag	107	0.199	ug/L	0.000	0	15	2338	1
Cd	111	2.057	ug/L	0.008	0	64	9712	1
Cd	114	2.015	ug/L	0.053	2	38	23621	1
Sb	121	0.966	ug/L	0.022	2	27	13290	2
Sb	123	0.970	ug/L	0.018	1	21	10073	2
Ba	135	33.037	ug/L	0.315	0	16	142796	0
Ba	137	32.931	ug/L	0.451	1	32	245737	0
Tb	159		ug/L			1186851	1139948	0
Tl	205	0.122	ug/L	0.004	3	48	4345	3
Pb	208	179.076	ug/L	1.147	0	169	7927347	0
Bi	209		ug/L			2692417	2599821	1
Th	232	0.510	ug/L	0.009	1	61	20902	1
U	238	0.168	ug/L	0.003	1	6	7536	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:30:54
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	971454	0
	Be	9	0.076	ug/L	0.010	12	11	255	11
	C	13		ug/L			80899	91939	1
	Cl	37		ug/L			4140238	4246589	2
>	Sc	45		ug/L			1070141	1050146	1
	Al	27	2335.579	ug/L	57.130	2	6167	76851176	1
	V	51	3.818	ug/L	0.066	1	8787	84687	0
	V-1	51	3.794	ug/L	0.040	1	45	75957	0
	Cr	52	2.929	ug/L	0.119	4	25797	73447	1
	Cr	53	2.860	ug/L	0.092	3	119	5507	3
	Fe	54	2571.684	ug/L	35.606	1	71682	3046510	1
	Fe	57	2417.083	ug/L	55.332	2	9627	1110175	1
	Mn	55	124.652	ug/L	1.707	1	492	2856399	2
	Co	59	1.069	ug/L	0.019	1	78	17824	2
>	Ge	72		ug/L			580442	549194	2
	Ni	60	2.512	ug/L	0.043	1	28	8703	1
	Ni	62	2.670	ug/L	0.189	7	309	1581	3
	Cu	63	4.821	ug/L	0.109	2	301	37406	2
	Cu	65	4.779	ug/L	0.226	4	43	16602	2
	Zn	66	149.174	ug/L	2.570	1	184	298135	1
	Zn	67	135.272	ug/L	8.112	5	30	45596	3
	Zn	68	147.964	ug/L	4.244	2	181	211632	0
	As	75	3.347	ug/L	0.095	2	180	6544	0
	As-1	75	3.419	ug/L	0.238	6	11796	17676	0
	Se	82	0.018	ug/L	0.028	155	0	3	149
	Se	78	0.419	ug/L	0.588	140	11951	11514	0
	Mo	98	0.093	ug/L	0.004	4	6	418	5
	Y	89		ug/L			356764	360548	1
	Kr	83		ug/L			473	521	0
>	In	115		ug/L			987844	963906	1
	Ag	107	0.103	ug/L	0.004	4	15	1190	4
	Cd	111	2.628	ug/L	0.064	2	64	12152	0
	Cd	114	2.596	ug/L	0.052	1	38	29838	0
	Sb	121	0.200	ug/L	0.012	6	27	2711	4
	Sb	123	0.200	ug/L	0.013	6	21	2048	4
	Ba	135	36.384	ug/L	0.418	1	16	154253	0
	Ba	137	36.613	ug/L	1.085	2	32	267925	1
>	Tb	159		ug/L			1186851	1130046	0
	Tl	205	0.105	ug/L	0.001	1	48	3692	1
	Pb	208	103.876	ug/L	1.568	1	169	4558354	0
	Bi	209		ug/L			2692417	2566656	1
	Th	232	0.774	ug/L	0.012	1	61	31417	0
	U	238	0.115	ug/L	0.002	1	6	5106	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:36:12
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	975597	0
[	Be	9	0.063	ug/L	0.004	7	11	212	7
	C	13		ug/L			80899	93267	3
	Cl	37		ug/L			4140238	4181705	3
[>	Sc	45		ug/L			1070141	1057299	0
[	Al	27	1967.284	ug/L	52.100	2	6167	65185383	2
[	V	51	3.404	ug/L	0.090	2	8787	76966	2
[	V-1	51	3.428	ug/L	0.076	2	45	69102	2
[	Cr	52	2.469	ug/L	0.058	2	25797	66354	1
[	Cr	53	2.564	ug/L	0.099	3	119	4983	4
[	Fe	54	2239.135	ug/L	71.360	3	71682	2680129	3
[	Fe	57	2105.051	ug/L	32.290	1	9627	974870	1
[	Mn	55	97.689	ug/L	2.618	2	492	2253817	3
[	Co	59	0.893	ug/L	0.006	0	78	14994	0
[>	Ge	72		ug/L			580442	537175	0
[	Ni	60	2.401	ug/L	0.061	2	28	8141	2
[	Ni	62	2.375	ug/L	0.036	1	309	1409	1
[	Cu	63	5.239	ug/L	0.035	0	301	39751	0
[	Cu	65	5.289	ug/L	0.043	0	43	17982	0
[	Zn	66	128.468	ug/L	2.159	1	184	251224	1
[	Zn	67	116.302	ug/L	0.412	0	30	38392	0
[	Zn	68	126.981	ug/L	0.606	0	181	177764	0
[	As	75	2.303	ug/L	0.047	2	180	4459	1
[	As-1	75	2.455	ug/L	0.052	2	11796	15497	0
[	Se	82	0.062	ug/L	0.032	51	0	12	51
[	Se	78	0.719	ug/L	0.068	9	11951	11417	0
[	Mo	98	0.081	ug/L	0.006	7	6	357	7
	Y	89		ug/L			356764	357272	0
	Kr	83		ug/L			473	488	8
[>	In	115		ug/L			987844	972584	0
[	Ag	107	0.122	ug/L	0.001	0	15	1431	1
[	Cd	111	1.971	ug/L	0.017	0	64	9214	1
[	Cd	114	1.910	ug/L	0.030	1	38	22168	1
[	Sb	121	0.364	ug/L	0.004	1	27	4975	0
[	Sb	123	0.358	ug/L	0.006	1	21	3693	1
[	Ba	135	30.884	ug/L	0.292	0	16	132125	0
[	Ba	137	30.991	ug/L	0.051	0	32	228910	0
[>	Tb	159		ug/L			1186851	1125532	0
[	Tl	205	0.095	ug/L	0.001	0	48	3326	0
[	Pb	208	119.043	ug/L	0.629	0	169	5203358	0
[	Bi	209		ug/L			2692417	2579658	0
[	Th	232	0.782	ug/L	0.005	0	61	31641	0
[	U	238	0.114	ug/L	0.002	1	6	5061	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:40:26
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	973987	1
	Be	9	0.110	ug/L	0.005	4	11	362	5
	C	13		ug/L			80899	91235	1
	Cl	37		ug/L			4140238	4250461	4
>	Sc	45		ug/L			1070141	1056582	0
	Al	27	4069.076	ug/L	37.181	0	6167	134734672	1
	V	51	4.645	ug/L	0.070	1	8787	101784	1
	V-1	51	4.633	ug/L	0.093	1	45	93308	1
	Cr	52	3.058	ug/L	0.071	2	25797	76054	2
	Cr	53	3.041	ug/L	0.067	2	119	5883	1
	Fe	54	2859.694	ug/L	68.644	2	71682	3400670	2
	Fe	57	2698.312	ug/L	12.594	0	9627	1246051	0
	Mn	55	110.625	ug/L	2.580	2	492	2550236	2
	Co	59	1.223	ug/L	0.011	0	78	20502	0
>	Ge	72		ug/L			580442	541520	0
	Ni	60	3.056	ug/L	0.033	1	28	10438	1
	Ni	62	3.118	ug/L	0.126	4	309	1774	3
	Cu	63	6.628	ug/L	0.047	0	301	50621	1
	Cu	65	6.683	ug/L	0.088	1	43	22895	1
	Zn	66	107.830	ug/L	0.230	0	184	212600	0
	Zn	67	98.894	ug/L	1.295	1	30	32915	1
	Zn	68	106.708	ug/L	0.618	0	181	150619	0
	As	75	4.889	ug/L	0.042	0	180	9354	1
	As-1	75	5.023	ug/L	0.050	1	11796	20454	0
	Se	82	-0.005	ug/L	0.014	252	0	0	297
	Se	78	0.642	ug/L	0.073	11	11951	11471	0
	Mo	98	0.083	ug/L	0.003	4	6	370	3
	Y	89		ug/L			356764	362226	2
	Kr	83		ug/L			473	520	3
>	In	115		ug/L			987844	951095	0
	Ag	107	0.105	ug/L	0.003	2	15	1207	3
	Cd	111	1.757	ug/L	0.023	1	64	8040	1
	Cd	114	1.744	ug/L	0.041	2	38	19803	2
	Sb	121	0.200	ug/L	0.006	2	27	2681	2
	Sb	123	0.203	ug/L	0.001	0	21	2052	1
	Ba	135	33.404	ug/L	0.440	1	16	139748	0
	Ba	137	33.050	ug/L	0.153	0	32	238719	0
>	Tb	159		ug/L			1186851	1123484	0
	Tl	205	0.082	ug/L	0.001	1	48	2879	1
	Pb	208	73.295	ug/L	0.481	0	169	3197928	0
	Bi	209		ug/L			2692417	2559432	0
	Th	232	2.086	ug/L	0.028	1	61	84126	1
	U	238	0.350	ug/L	0.009	2	6	15418	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:44:40

Pb Zn

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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	971545	2
[	Be	9	0.070	ug/L	0.001	2	11	235	0
	C	13		ug/L			80899	90835	2
	Cl	37		ug/L			4140238	4154260	1
[>	Sc	45		ug/L			1070141	1056117	2
|	Al	27	2164.718	ug/L	70.823	3	6167	71612331	1
|	V	51	3.111	ug/L	0.099	3	8787	70982	1
|	V-1	51	3.122	ug/L	0.091	2	45	62850	1
|	Cr	52	2.364	ug/L	0.117	4	25797	64503	0
|	Cr	53	2.413	ug/L	0.092	3	119	4688	2
|	Fe	54	2226.775	ug/L	51.587	2	71682	2661988	2
|	Fe	57	2117.487	ug/L	97.052	4	9627	978725	2
|	Mn	55	158.732	ug/L	5.883	3	492	3655670	2
[	Co	59	0.905	ug/L	0.022	2	78	15179	2
[>	Ge	72		ug/L			580442	548306	1
|	Ni	60	2.357	ug/L	0.035	1	28	8155	0
|	Ni	62	2.338	ug/L	0.173	7	309	1419	4
|	Cu	63	4.243	ug/L	0.173	4	301	32900	3
|	Cu	65	4.288	ug/L	0.124	2	43	14883	1
|	Zn	66	121.416	ug/L	4.200	3	184	242275	1
|	Zn	67	109.863	ug/L	2.252	2	30	37011	0
|	Zn	68	120.122	ug/L	4.563	3	181	171592	2
|	As	75	4.021	ug/L	0.092	2	180	7819	0
|	As-1	75	3.992	ug/L	0.209	5	11796	18743	0
|	Se	82	0.083	ug/L	0.010	12	0	16	10
|	Se	78	0.043	ug/L	0.493	1149	11951	11308	0
[	Mo	98	0.087	ug/L	0.008	8	6	393	6
	Y	89		ug/L			356764	356992	0
	Kr	83		ug/L			473	481	7
[>	In	115		ug/L			987844	964568	0
|	Ag	107	0.077	ug/L	0.003	4	15	897	4
|	Cd	111	2.326	ug/L	0.011	0	64	10776	0
|	Cd	114	2.338	ug/L	0.010	0	38	26909	0
|	Sb	121	0.143	ug/L	0.002	1	27	1951	1
|	Sb	123	0.141	ug/L	0.004	3	21	1452	2
|	Ba	135	41.186	ug/L	0.256	0	16	174746	0
[	Ba	137	41.412	ug/L	0.401	0	32	303342	0
[>	Tb	159		ug/L			1186851	1131883	0
|	Tl	205	0.082	ug/L	0.000	0	48	2919	0
|	Pb	208	75.075	ug/L	0.593	0	169	3300057	0
|	Bi	209		ug/L			2692417	2574703	0
|	Th	232	0.690	ug/L	0.005	0	61	28055	0
[	U	238	0.099	ug/L	0.001	0	6	4424	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:48:54
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	980283	0
[	Be	9	0.062	ug/L	0.004	6	11	210	6
	C	13		ug/L			80899	92889	0
	Cl	37		ug/L			4140238	4177549	3
[>	Sc	45		ug/L			1070141	1056343	3
[	Al	27	2053.826	ug/L	89.637	4	6167	67933095	1
[	V	51	3.113	ug/L	0.107	3	8787	71015	0
[	V-1	51	3.136	ug/L	0.098	3	45	63131	0
[	Cr	52	1.796	ug/L	0.167	9	25797	55106	2
[	Cr	53	1.895	ug/L	0.119	6	119	3705	2
[	Fe	54	1939.079	ug/L	90.284	4	71682	2325991	1
[	Fe	57	1796.346	ug/L	60.102	3	9627	831987	1
[	Mn	55	107.975	ug/L	5.050	4	492	2486442	2
[	Co	59	0.733	ug/L	0.047	6	78	12296	3
[>	Ge	72		ug/L			580442	539371	0
[	Ni	60	1.850	ug/L	0.021	1	28	6305	1
[	Ni	62	1.900	ug/L	0.138	7	309	1189	6
[	Cu	63	5.148	ug/L	0.205	3	301	39229	4
[	Cu	65	5.268	ug/L	0.012	0	43	17985	0
[	Zn	66	70.840	ug/L	0.575	0	184	139170	0
[	Zn	67	65.300	ug/L	0.929	1	30	21655	1
[	Zn	68	69.716	ug/L	1.095	1	181	98066	0
[	As	75	5.835	ug/L	0.069	1	180	11088	0
[	As-1	75	5.920	ug/L	0.056	0	11796	22053	0
[	Se	82	0.124	ug/L	0.055	44	0	24	43
[	Se	78	0.520	ug/L	0.139	26	11951	11365	1
[	Mo	98	0.092	ug/L	0.005	5	6	405	5
	Y	89		ug/L			356764	355818	0
	Kr	83		ug/L			473	475	4
[>	In	115		ug/L			987844	955427	2
[	Ag	107	0.077	ug/L	0.007	8	15	884	8
[	Cd	111	1.845	ug/L	0.013	0	64	8479	1
[	Cd	114	1.829	ug/L	0.058	3	38	20842	1
[	Sb	121	0.247	ug/L	0.010	3	27	3321	1
[	Sb	123	0.247	ug/L	0.004	1	21	2509	1
[	Ba	135	30.162	ug/L	1.003	3	16	126705	1
[	Ba	137	29.854	ug/L	0.837	2	32	216534	0
[>	Tb	159		ug/L			1186851	1118254	0
[	Tl	205	0.069	ug/L	0.001	0	48	2412	1
[	Pb	208	71.879	ug/L	0.361	0	169	3121541	0
[	Bi	209		ug/L			2692417	2572940	0
[	Th	232	0.613	ug/L	0.015	2	61	24637	1
[	U	238	0.099	ug/L	0.002	1	6	4334	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 13:53:10
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	933241 ✓	1
[	Be	9	50.445	ug/L	1.655	3	11	154385	1
	C	13		ug/L			80899	83945	2
	Cl	37		ug/L			4140238	4245237	0
[>	Sc	45		ug/L			1070141	1027134 ✓	3
[	Al	27	4976.747	ug/L	239.596	4	6167	160004171	1
[	V	51	48.802	ug/L	1.530	3	8787	958827	1
[	V-1	51	48.371	ug/L	1.515	3	45	946062	1
[	Cr	52	49.525	ug/L	1.308	2	25797	820535	1
[	Cr	53	48.051	ug/L	1.290	2	119	88638	1
[	Fe	54	4920.618	ug/L	133.217	2	71682	5635358	1
[	Fe	57	4957.111	ug/L	119.686	2	9627	2216296	1
[	Mn	55	47.778	ug/L	1.946	4	492	1070049	1
[	Co	59	49.102	ug/L	2.067	4	78	796360	2
[>	Ge	72		ug/L			580442	537919 ✓	0
[	Ni	60	49.499	ug/L	0.480	0	28	167534	0
[	Ni	62	49.593	ug/L	0.872	1	309	23762	1
[	Cu	63	47.852	ug/L	0.858	1	301	361270	1
[	Cu	65	48.773	ug/L	1.259	2	43	165727	2
[	Zn	66	50.409	ug/L	0.072	0	184	98819	0
[	Zn	67	50.345	ug/L	1.556	3	30	16658	3
[	Zn	68	50.253	ug/L	0.673	1	181	70549	1
[	As	75	49.750	ug/L	0.591	1	180	93027	1
[	As-1	75	49.923	ug/L	0.497	0	11796	104220	0
[	Se	82	49.924	ug/L	0.900	1	0	9705	1
[	Se	78	50.530	ug/L	0.418	0	11951	36182	0
[	Mo	98	50.273	ug/L	0.467	0	6	219023	0
	Y	89		ug/L			356764	337116	1
	Kr	83		ug/L			473	477	2
[>	In	115		ug/L			987844	932780 ✓	1
[	Ag	107	50.044	ug/L	0.514	1	15	555123	0
[	Cd	111	50.173	ug/L	0.615	1	64	223480	0
[	Cd	114	50.655	ug/L	0.684	1	38	563046	2
[	Sb	121	49.857	ug/L	1.016	2	27	649496	1
[	Sb	123	50.015	ug/L	0.708	1	21	491754	1
[	Ba	135	49.099	ug/L	0.330	0	16	201465	1
[	Ba	137	48.780	ug/L	0.571	1	32	345509	0
[>	Tb	159		ug/L			1186851	1113097 ✓	0
[	Tl	205	48.024	ug/L	1.019	2	48	1646141	1
[	Pb	208	49.655	ug/L	0.476	0	169	2146428	0
[	Bi	209		ug/L			2692417	2455090	0
[	Th	232	48.582	ug/L	0.199	0	61	1939989	0
[	U	238	52.259	ug/L	0.837	1	6	2283190	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:00:09
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	901379 ✓	2
	Be	9	-0.000	ug/L	0.001	182	11	9	26
	C	13		ug/L			80899	82535	4
	Cl	37		ug/L			4140238	4068308	1
>	Sc	45		ug/L			1070141	979025 ✓	2
	Al	27	0.027	ug/L	0.023	84	6167	6459	10
	V	51	0.005	ug/L	0.017	360	8787	8124	4
	V-1	51	0.001	ug/L	0.000	30	45	61	10
	Cr	52	0.028	ug/L	0.063	221	25797	24038	4
	Cr	53	0.016	ug/L	0.006	39	119	137	9
	Fe	54	1.846	ug/L	1.836	99	71682	67579	4
	Fe	57	1.970	ug/L	1.278	64	9627	9637	3
	Mn	55	-0.002	ug/L	0.002	120	492	414	8
	Co	59	0.001	ug/L	0.001	93	78	92	20
>	Ge	72		ug/L			580442	524159 ✓	0
	Ni	60	0.002	ug/L	0.001	43	28	32	8
	Ni	62	-0.177	ug/L	0.056	31	309	198	12
	Cu	63	-0.013	ug/L	0.001	6	301	178	3
	Cu	65	0.001	ug/L	0.001	157	43	41	8
	Zn	66	0.015	ug/L	0.013	89	184	195	13
	Zn	67	0.025	ug/L	0.015	62	30	35	14
	Zn	68	0.017	ug/L	0.018	106	181	187	13
	As	75	0.018	ug/L	0.003	17	180	194	2
	As-1	75	0.236	ug/L	0.063	26	11796	11082	0
	Se	82	-0.038	ug/L	0.047	124	0	-7	126
	Se	78	0.859	ug/L	0.255	29	11951	11208	1
	Mo	98	0.010	ug/L	0.003	26	6	49	23
	Y	89		ug/L			356764	325640	0
	Kr	83		ug/L			473	475	3
>	In	115		ug/L			987844	915447 ✓	1
	Ag	107	0.002	ug/L	0.001	35	15	40	22
	Cd	111	0.004	ug/L	0.000	6	64	76	2
	Cd	114	0.000	ug/L	0.000	127	38	38	8
	Sb	121	0.063	ug/L	0.006	9	27	824	8
	Sb	123	0.061	ug/L	0.005	8	21	609	7
	Ba	135	0.003	ug/L	0.002	54	16	28	26
	Ba	137	0.003	ug/L	0.002	49	32	53	21
>	Tb	159		ug/L			1186851	1067743 ✓	1
	Tl	205	0.008	ug/L	0.004	46	48	312	39
	Pb	208	0.001	ug/L	0.001	53	169	204	15
	Bi	209		ug/L			2692417	2500954	0
	Th	232	0.092	ug/L	0.004	4	61	3580	5
	U	238	0.002	ug/L	0.000	2	6	104	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR36 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:13:21
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	950914	1
	Be	9	0.057	ug/L	0.006	11	11	188	8
	C	13		ug/L			80899	95376	1
	Cl	37		ug/L			4140238	4237764	1
>	Sc	45		ug/L			1070141	1038876	1
	Al	27	1689.109	ug/L	22.878	1	6167	54991202	1
	V	51	2.625	ug/L	0.016	0	8787	60271	1
	V-1	51	2.634	ug/L	0.018	0	45	52174	1
	Cr	52	1.571	ug/L	0.025	1	25797	50591	2
	Cr	53	1.615	ug/L	0.016	0	119	3127	1
	Fe	54	1660.218	ug/L	19.745	1	71682	1970234	1
	Fe	57	1538.366	ug/L	31.786	2	9627	702400	1
	Mn	55	82.228	ug/L	0.248	0	492	1864081	2
	Co	59	0.604	ug/L	0.017	2	78	9987	1
>	Ge	72		ug/L			580442	538379	1
	Ni	60	1.636	ug/L	0.033	2	28	5565	1
	Ni	62	1.510	ug/L	0.079	5	309	1002	4
	Cu	63	4.671	ug/L	0.072	1	301	35549	1
	Cu	65	4.756	ug/L	0.026	0	43	16210	1
	Zn	66	98.381	ug/L	1.989	2	184	192853	1
	Zn	67	88.208	ug/L	1.526	1	30	29187	0
	Zn	68	95.783	ug/L	3.070	3	181	134408	2
	As	75	4.154	ug/L	0.120	2	180	7927	2
	As-1	75	4.236	ug/L	0.174	4	11796	18864	1
	Se	82	0.124	ug/L	0.022	17	0	24	17
	Se	78	0.498	ug/L	0.224	45	11951	11332	0
	Mo	98	0.090	ug/L	0.004	4	6	396	4
	Y	89		ug/L			356764	353523	0
	Kr	83		ug/L			473	469	1
>	In	115		ug/L			987844	961776	0
	Ag	107	0.143	ug/L	0.004	2	15	1653	1
	Cd	111	2.498	ug/L	0.041	1	64	11532	0
	Cd	114	2.469	ug/L	0.051	2	38	28329	2
	Sb	121	1.433	ug/L	0.008	0	27	19272	1
	Sb	123	1.434	ug/L	0.008	0	21	14559	1
	Ba	135	27.617	ug/L	0.264	0	16	116836	0
	Ba	137	27.598	ug/L	0.371	1	32	201575	0
>	Tb	159		ug/L			1186851	1116734	0
	Tl	205	0.090	ug/L	0.001	1	48	3123	1
	Pb	208	136.218	ug/L	0.653	0	169	5907501	0
	Bi	209		ug/L			2692417	2565246	0
	Th	232	0.445	ug/L	0.009	2	61	17866	1
	U	238	0.092	ug/L	0.002	1	6	4031	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:17:35
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\112012.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	949435	1
	Be	9	0.064	ug/L	0.002	2	11	212	1
	C	13		ug/L			80899	90411	1
	Cl	37		ug/L			4140238	4219301	2
>	Sc	45		ug/L			1070141	1061796	0
	Al	27	1898.782	ug/L	31.429	1	6167	63184945	1
	V	51	3.420	ug/L	0.079	2	8787	77604	1
	V-1	51	3.426	ug/L	0.106	3	45	69363	2
	Cr	52	2.232	ug/L	0.090	4	25797	62692	2
	Cr	53	2.272	ug/L	0.052	2	119	4448	2
	Fe	54	2145.515	ug/L	24.186	1	71682	2581922	1
	Fe	57	1946.649	ug/L	72.205	3	9627	905890	3
	Mn	55	127.939	ug/L	1.695	1	492	2964115	1
	Co	59	0.781	ug/L	0.024	3	78	13190	3
>	Ge	72		ug/L			580442	545246	1
	Ni	60	2.095	ug/L	0.047	2	28	7210	1
	Ni	62	2.093	ug/L	0.121	5	309	1294	3
	Cu	63	3.262	ug/L	0.073	2	301	25225	1
	Cu	65	3.294	ug/L	0.051	1	43	11383	0
	Zn	66	71.988	ug/L	3.844	5	184	142914	4
	Zn	67	66.551	ug/L	1.599	2	30	22309	2
	Zn	68	70.917	ug/L	1.614	2	181	100829	1
	As	75	2.540	ug/L	0.049	1	180	4973	0
	As-1	75	2.547	ug/L	0.084	3	11796	15904	0
	Se	82	0.041	ug/L	0.008	18	0	8	17
	Se	78	0.137	ug/L	0.194	141	11951	11295	0
	Mo	98	0.078	ug/L	0.002	3	6	351	1
	Y	89		ug/L			356764	356680	0
	Kr	83		ug/L			473	482	2
>	In	115		ug/L			987844	970823	0
	Ag	107	0.048	ug/L	0.002	4	15	567	3
	Cd	111	1.483	ug/L	0.024	1	64	6937	2
	Cd	114	1.469	ug/L	0.026	1	38	17025	2
	Sb	121	0.094	ug/L	0.003	3	27	1298	2
	Sb	123	0.088	ug/L	0.002	2	21	924	1
	Ba	135	32.552	ug/L	0.941	2	16	139025	3
	Ba	137	32.650	ug/L	0.145	0	32	240722	0
>	Tb	159		ug/L			1186851	1126213	0
	Tl	205	0.073	ug/L	0.003	4	48	2592	3
	Pb	208	88.898	ug/L	3.400	3	169	3887860	3
	Bi	209		ug/L			2692417	2607014	0
	Th	232	0.716	ug/L	0.019	2	61	28975	2
	U	238	0.094	ug/L	0.002	2	6	4158	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:21:50
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	964431	1
	Be	9	0.057	ug/L	0.004	6	11	192	7
	C	13		ug/L			80899	93228	0
	Cl	37		ug/L			4140238	4190588	2
>	Sc	45		ug/L			1070141	1036122	1
	Al	27	1743.104	ug/L	21.520	1	6167	56597598	0
	V	51	4.027	ug/L	0.122	3	8787	87661	1
	V-1	51	4.029	ug/L	0.117	2	45	79570	1
	Cr	52	2.434	ug/L	0.084	3	25797	64441	1
	Cr	53	2.463	ug/L	0.103	4	119	4694	3
	Fe	54	2194.107	ug/L	59.966	2	71682	2574676	2
	Fe	57	2062.868	ug/L	53.350	2	9627	936259	2
	Mn	55	155.291	ug/L	3.915	2	492	3510124	1
	Co	59	0.897	ug/L	0.014	1	78	14767	0
>	Ge	72		ug/L			580442	543955	2
	Ni	60	2.124	ug/L	0.011	0	28	7296	1
	Ni	62	1.965	ug/L	0.068	3	309	1231	4
	Cu	63	5.965	ug/L	0.129	2	301	45776	0
	Cu	65	6.069	ug/L	0.139	2	43	20885	2
	Zn	66	89.145	ug/L	1.940	2	184	176543	1
	Zn	67	81.976	ug/L	0.840	1	30	27415	3
	Zn	68	87.819	ug/L	1.922	2	181	124538	2
	As	75	3.418	ug/L	0.100	2	180	6618	1
	As-1	75	3.493	ug/L	0.196	5	11796	17650	0
	Se	82	0.023	ug/L	0.033	142	0	4	139
	Se	78	0.438	ug/L	0.486	111	11951	11417	1
	Mo	98	0.092	ug/L	0.003	3	6	410	4
	Y	89		ug/L			356764	358448	0
	Kr	83		ug/L			473	520	1
>	In	115		ug/L			987844	972281	0
	Ag	107	0.139	ug/L	0.003	1	15	1622	2
	Cd	111	2.129	ug/L	0.022	1	64	9947	0
	Cd	114	2.096	ug/L	0.033	1	38	24315	1
	Sb	121	0.288	ug/L	0.006	2	27	3938	2
	Sb	123	0.296	ug/L	0.005	1	21	3057	1
	Ba	135	24.663	ug/L	0.208	0	16	105489	1
	Ba	137	24.709	ug/L	0.328	1	32	182453	0
>	Tb	159		ug/L			1186851	1119805	0
	Tl	205	0.102	ug/L	0.002	2	48	3553	1
	Pb	208	147.244	ug/L	0.507	0	169	6403262	0
	Bi	209		ug/L			2692417	2602999	0
	Th	232	0.490	ug/L	0.001	0	61	19749	0
	U	238	0.075	ug/L	0.002	3	6	3315	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:26:04
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	965428	1
	Be	9	0.094	ug/L	0.007	7	11	308	5
	C	13		ug/L			80899	89995	1
	Cl	37		ug/L			4140238	4107383	1
>	Sc	45		ug/L			1070141	1070264	1
	Al	27	2793.326	ug/L	48.811	1	6167	93676520	0
	V	51	4.243	ug/L	0.211	4	8787	94904	3
	V-1	51	4.287	ug/L	0.192	4	45	87436	3
	Cr	52	3.077	ug/L	0.112	3	25797	77331	1
	Cr	53	3.244	ug/L	0.050	1	119	6350	0
	Fe	54	2954.604	ug/L	90.634	3	71682	3555745	1
	Fe	57	2742.181	ug/L	68.084	2	9627	1282262	1
	Mn	55	162.144	ug/L	3.281	2	492	3785508	0
	Co	59	1.177	ug/L	0.035	2	78	19984	1
>	Ge	72		ug/L			580442	545911	0
	Ni	60	3.031	ug/L	0.046	1	28	10435	1
	Ni	62	2.988	ug/L	0.082	2	309	1726	2
	Cu	63	4.229	ug/L	0.041	0	301	32661	0
	Cu	65	4.262	ug/L	0.101	2	43	14735	2
	Zn	66	84.539	ug/L	1.161	1	184	168068	1
	Zn	67	77.897	ug/L	1.271	1	30	26141	1
	Zn	68	84.784	ug/L	1.089	1	181	120678	1
	As	75	3.748	ug/L	0.040	1	180	7270	0
	As-1	75	3.780	ug/L	0.045	1	11796	18262	0
	Se	82	0.057	ug/L	0.073	128	0	11	126
	Se	78	0.282	ug/L	0.057	20	11951	11382	0
	Mo	98	0.080	ug/L	0.001	1	6	359	1
	Y	89		ug/L			356764	370587	0
	Kr	83		ug/L			473	504	4
>	In	115		ug/L			987844	950204	1
	Ag	107	0.072	ug/L	0.002	2	15	825	1
	Cd	111	1.575	ug/L	0.051	3	64	7206	2
	Cd	114	1.571	ug/L	0.036	2	38	17817	1
	Sb	121	0.054	ug/L	0.004	8	27	739	6
	Sb	123	0.054	ug/L	0.003	5	21	559	5
	Ba	135	38.282	ug/L	0.753	1	16	159986	0
	Ba	137	38.126	ug/L	0.669	1	32	275088	0
>	Tb	159		ug/L			1186851	1127839	1
	Tl	205	0.069	ug/L	0.001	1	48	2444	3
	Pb	208	63.989	ug/L	1.540	2	169	2802109	1
	Bi	209		ug/L			2692417	2568541	0
	Th	232	0.929	ug/L	0.026	2	61	37619	1
	U	238	0.128	ug/L	0.004	3	6	5692	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:30:18
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: C:\NexIONData\System\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	966474	0
	Be	9	0.105	ug/L	0.002	1	11	345	0
	C	13		ug/L			80899	94378	0
	Cl	37		ug/L			4140238	4204809	1
>	Sc	45		ug/L			1070141	1056231	1
	Al	27	3363.271	ug/L	53.430	1	6167	111308990	0
	V	51	5.296	ug/L	0.048	0	8787	114809	0
	V-1	51	5.332	ug/L	0.055	1	45	107357	0
	Cr	52	3.246	ug/L	0.104	3	25797	79131	2
	Cr	53	3.398	ug/L	0.027	0	119	6558	0
	Fe	54	3246.656	ug/L	106.915	3	71682	3848864	1
	Fe	57	3110.658	ug/L	93.045	2	9627	1434171	1
	Mn	55	280.301	ug/L	2.994	1	492	6459440	2
	Co	59	1.799	ug/L	0.005	0	78	30104	1
>	Ge	72		ug/L			580442	541351	3
	Ni	60	3.666	ug/L	0.144	3	28	12503	0
	Ni	62	3.688	ug/L	0.039	1	309	2045	3
	Cu	63	8.532	ug/L	0.441	5	301	65000	2
	Cu	65	8.879	ug/L	0.165	1	43	30387	2
	Zn	66	185.538	ug/L	6.843	3	184	365309	0
	Zn	67	172.796	ug/L	2.721	1	30	57455	1
	Zn	68	183.764	ug/L	8.665	4	181	258954	2
	As	75	7.475	ug/L	0.212	2	180	14201	0
	As-1	75	7.536	ug/L	0.430	5	11796	25157	0
	Se	82	0.115	ug/L	0.048	41	0	22	43
	Se	78	0.470	ug/L	0.815	173	11951	11373	0
	Mo	98	0.295	ug/L	0.016	5	6	1297	3
	Y	89		ug/L			356764	364657	2
	Kr	83		ug/L			473	502	2
>	In	115		ug/L			987844	963711	1
	Ag	107	0.153	ug/L	0.007	4	15	1767	2
	Cd	111	4.173	ug/L	0.090	2	64	19258	0
	Cd	114	4.188	ug/L	0.059	1	38	48114	0
	Sb	121	0.154	ug/L	0.006	3	27	2103	1
	Sb	123	0.156	ug/L	0.002	1	21	1608	2
	Ba	135	77.859	ug/L	1.333	1	16	329980	0
	Ba	137	77.800	ug/L	1.667	2	32	569218	0
>	Tb	159		ug/L			1186851	1113977	0
	Tl	205	0.175	ug/L	0.004	2	48	6034	1
	Pb	208	214.421	ug/L	1.465	0	169	9275805	0
	Bi	209		ug/L			2692417	2567126	0
	Th	232	0.795	ug/L	0.008	1	61	31827	0
	U	238	0.128	ug/L	0.001	0	6	5609	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:34:32
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: C:\NexION Data\System\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	956956	1
[	Be	9	0.079	ug/L	0.002	1	11	259	1
	C	13		ug/L			80899	94391	1
	Cl	37		ug/L			4140238	4146445	4
[>	Sc	45		ug/L			1070141	1054296	2
[	Al	27	3116.307	ug/L	112.808	3	6167	102896879	1
[	V	51	2.472	ug/L	0.103	4	8787	58078	1
[	V-1	51	2.493	ug/L	0.082	3	45	50097	1
[	Cr	52	2.285	ug/L	0.131	5	25797	63093	1
[	Cr	53	2.357	ug/L	0.072	3	119	4577	2
[	Fe	54	2158.081	ug/L	58.428	2	71682	2576960	0
[	Fe	57	1959.732	ug/L	30.438	1	9627	905389	1
[	Mn	55	225.742	ug/L	6.333	2	492	5189783	0
[	Co	59	0.994	ug/L	0.043	4	78	16632	2
[>	Ge	72		ug/L			580442	532604	0
[	Ni	60	2.239	ug/L	0.088	3	28	7529	3
[	Ni	62	2.117	ug/L	0.074	3	309	1276	2
[	Cu	63	10.072	ug/L	0.174	1	301	75509	1
[	Cu	65	10.025	ug/L	0.105	1	43	33760	0
[	Zn	66	248.697	ug/L	1.777	0	184	482046	0
[	Zn	67	225.776	ug/L	0.981	0	30	73869	0
[	Zn	68	248.191	ug/L	3.151	1	181	344324	0
[	As	75	8.723	ug/L	0.165	1	180	16285	1
[	As-1	75	8.854	ug/L	0.192	2	11796	27205	0
[	Se	82	0.145	ug/L	0.051	35	0	28	35
[	Se	78	0.757	ug/L	0.109	14	11951	11338	0
[	Mo	98	0.153	ug/L	0.003	2	6	664	2
	Y	89		ug/L			356764	360823	2
	Kr	83		ug/L			473	485	3
[>	In	115		ug/L			987844	985157	0
[	Ag	107	0.265	ug/L	0.008	2	15	3122	2
[	Cd	111	4.157	ug/L	0.045	1	64	19615	0
[	Cd	114	4.137	ug/L	0.051	1	38	48593	0
[	Sb	121	0.569	ug/L	0.005	0	27	7863	0
[	Sb	123	0.582	ug/L	0.008	1	21	6067	1
[	Ba	135	82.252	ug/L	0.499	0	16	356417	0
[	Ba	137	82.110	ug/L	1.360	1	32	614239	1
[>	Tb	159		ug/L			1186851	1115359	0
[	Tl	205	0.186	ug/L	0.002	1	48	6421	0
[	Pb	208	267.744	ug/L	3.256	1	169	11596442	0
[	Bi	209		ug/L			2692417	2580182	0
[	Th	232	0.408	ug/L	0.005	1	61	16390	0
[	U	238	0.080	ug/L	0.000	0	6	3497	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:38:46
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			960865	954083	1
[	Be	9	0.119	ug/L	0.004	3	11	384	3
	C	13		ug/L			80899	92170	0
	Cl	37		ug/L			4140238	4291060	2
[>	Sc	45		ug/L			1070141	1045260	1
|	Al	27	3530.150	ug/L	56.159	1	6167	115623761	0
|	V	51	4.281	ug/L	0.065	1	8787	93477	0
|	V-1	51	4.262	ug/L	0.097	2	45	84926	1
|	Cr	52	3.010	ug/L	0.024	0	25797	74444	1
|	Cr	53	2.965	ug/L	0.087	2	119	5677	1
|	Fe	54	4866.974	ug/L	89.922	1	71682	5676623	2
|	Fe	57	4995.756	ug/L	54.951	1	9627	2274269	1
|	Mn	55	568.331	ug/L	11.868	2	492	12958380	1
[	Co	59	2.497	ug/L	0.031	1	78	41324	1
[>	Ge	72		ug/L			580442	543838	1
|	Ni	60	10.948	ug/L	0.194	1	28	37484	2
|	Ni	62	11.053	ug/L	0.319	2	309	5579	2
|	Cu	63	8.322	ug/L	0.121	1	301	63748	0
|	Cu	65	8.386	ug/L	0.050	0	43	28844	1
|	Zn	66	173.407	ug/L	4.144	2	184	343191	1
|	Zn	67	161.731	ug/L	0.944	0	30	54040	1
|	Zn	68	171.339	ug/L	1.167	0	181	242771	0
|	As	75	5.318	ug/L	0.094	1	180	10203	0
|	As-1	75	5.332	ug/L	0.150	2	11796	21124	0
|	Se	82	0.132	ug/L	0.101	76	0	25	75
|	Se	78	0.299	ug/L	0.367	122	11951	11346	0
[	Mo	98	0.733	ug/L	0.024	3	6	3232	3
	Y	89		ug/L			356764	378649	2
	Kr	83		ug/L			473	502	3
[>	In	115		ug/L			987844	943052	1
|	Ag	107	0.096	ug/L	0.007	7	15	1088	8
|	Cd	111	4.596	ug/L	0.051	1	64	20753	0
|	Cd	114	4.492	ug/L	0.060	1	38	50500	0
|	Sb	121	0.175	ug/L	0.005	2	27	2327	2
|	Sb	123	0.178	ug/L	0.004	2	21	1785	2
|	Ba	135	93.757	ug/L	0.658	0	16	388903	0
[	Ba	137	93.335	ug/L	0.877	0	32	668364	0
[>	Tb	159		ug/L			1186851	1102133	0
|	Tl	205	0.082	ug/L	0.002	2	48	2834	1
|	Pb	208	77.933	ug/L	1.138	1	169	3335416	0
|	Bi	209		ug/L			2692417	2550137	0
|	Th	232	0.750	ug/L	0.013	1	61	29722	0
[	U	238	0.165	ug/L	0.001	0	6	7147	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 N SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:43:00
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\112012.cal

Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			960865	959357	0
Be	9	0.133	ug/L	0.004	2	11	430	1
C	13		ug/L			80899	94526	0
Cl	37		ug/L			4140238	4254234	2
> Sc	45		ug/L			1070141	1038306	0
Al	27	4113.748	ug/L	40.495	0	6167	133855970	1
V	51	4.330	ug/L	0.047	1	8787	93832	0
V-1	51	4.356	ug/L	0.025	0	45	86228	0
Cr	52	4.108	ug/L	0.112	2	25797	91799	1
Cr	53	4.199	ug/L	0.142	3	119	7941	3
Fe	54	5493.394	ug/L	124.438	2	71682	6355559	2
Fe	57	5621.306	ug/L	135.938	2	9627	2540793	2
Mn	55	778.176	ug/L	5.763	0	492	17626789	0
Co	59	2.639	ug/L	0.045	1	78	43374	1
> Ge	72		ug/L			580442	537760	1
Ni	60	8.067	ug/L	0.066	0	28	27316	0
Ni	62	7.895	ug/L	0.278	3	309	4021	1
Cu	63	7.667	ug/L	0.258	3	301	58086	2
Cu	65	7.806	ug/L	0.116	1	43	26546	1
Zn	66	110.277	ug/L	1.824	1	184	215883	0
Zn	67	103.403	ug/L	3.862	3	30	34165	2
Zn	68	109.960	ug/L	0.657	0	181	154124	1
As	75	7.537	ug/L	0.176	2	180	14227	0
As-1	75	7.567	ug/L	0.263	3	11796	25060	0
Se	82	0.106	ug/L	0.070	66	0	20	66
Se	78	0.371	ug/L	0.286	77	11951	11255	0
Mo	98	0.131	ug/L	0.003	2	6	575	1
Y	89		ug/L			356764	365600	0
Kr	83		ug/L			473	514	2
> In	115		ug/L			987844	943000	1
Ag	107	0.065	ug/L	0.002	2	15	747	1
Cd	111	1.789	ug/L	0.056	3	64	8114	1
Cd	114	1.779	ug/L	0.052	2	38	20016	2
Sb	121	0.079	ug/L	0.001	1	27	1069	2
Sb	123	0.079	ug/L	0.006	7	21	806	5
Ba	135	92.005	ug/L	0.705	0	16	381593	0
Ba	137	91.301	ug/L	1.783	1	32	653673	0
> Tb	159		ug/L			1186851	1115491	1
Tl	205	0.078	ug/L	0.001	1	48	2720	1
Pb	208	44.967	ug/L	0.689	1	169	1947846	0
Bi	209		ug/L			2692417	2530168	0
Th	232	1.428	ug/L	0.024	1	61	57183	0
U	238	0.164	ug/L	0.004	2	6	7192	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR37 O SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:48:18
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\112012.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			960865	955633	2
	Be	**9**	**0.145**	ug/L	0.007	4	11	464	2
	C	**13**		ug/L			80899	90893	1
	Cl	**37**		ug/L			4140238	4174033	3
>	**Sc**	**45**		ug/L			1070141	1051137	1
	Al	**27**	**4074.041**	ug/L	110.223	2	6167	134155550	0
	V	**51**	**4.596**	ug/L	0.077	1	8787	100280	0
	V-1	**51**	**4.616**	ug/L	0.066	1	45	92474	0
	Cr	**52**	**3.232**	ug/L	0.107	3	25797	78505	0
	Cr	**53**	**3.318**	ug/L	0.073	2	119	6374	1
	Fe	**54**	**5140.108**	ug/L	139.501	2	71682	6022902	0
	Fe	**57**	**5181.090**	ug/L	210.522	4	9627	2370702	3
	Mn	**55**	**477.119**	ug/L	14.441	3	492	10936957	1
	Co	**59**	**2.477**	ug/L	0.040	1	78	41217	0
>	**Ge**	**72**		ug/L			580442	539645	1
	Ni	**60**	**12.074**	ug/L	0.386	3	28	41000	1
	Ni	**62**	**12.141**	ug/L	0.083	0	309	6052	1
	Cu	**63**	**8.728**	ug/L	0.215	2	301	66319	1
	Cu	**65**	**8.813**	ug/L	0.224	2	43	30072	2
	Zn	**66**	**179.765**	ug/L	4.335	2	184	353039	2
	Zn	**67**	**165.321**	ug/L	3.633	2	30	54824	3
	Zn	**68**	**179.631**	ug/L	3.985	2	181	252504	1
	As	**75**	**6.629**	ug/L	0.119	1	180	12578	1
	As-1	**75**	**6.664**	ug/L	0.233	3	11796	23455	0
	Se	**82**	**0.121**	ug/L	0.009	7	0	23	7
	Se	**78**	**0.374**	ug/L	0.421	112	11951	11295	0
	Mo	**98**	**0.682**	ug/L	0.014	2	6	2986	3
	Y	**89**		ug/L			356764	375599	1
	Kr	**83**		ug/L			473	499	5
>	**In**	**115**		ug/L			987844	938041	1
	Ag	**107**	**0.095**	ug/L	0.006	5	15	1071	7
	Cd	**111**	**4.445**	ug/L	0.074	1	64	19965	1
	Cd	**114**	**4.432**	ug/L	0.087	1	38	49556	0
	Sb	**121**	**0.103**	ug/L	0.001	0	27	1371	0
	Sb	**123**	**0.108**	ug/L	0.003	2	21	1090	3
	Ba	**135**	**86.715**	ug/L	1.672	1	16	357721	0
	Ba	**137**	**86.951**	ug/L	0.834	0	32	619329	0
>	**Tb**	**159**		ug/L			1186851	1114546	0
	Tl	**205**	**0.077**	ug/L	0.001	0	48	2700	0
	Pb	**208**	**66.638**	ug/L	0.267	0	169	2884414	0
	Bi	**209**		ug/L			2692417	2518730	1
	Th	**232**	**0.807**	ug/L	0.007	0	61	32305	0
	U	**238**	**0.176**	ug/L	0.001	0	6	7710	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR34 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:52:32
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: C:\NexION Data\System\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	933554	1
	Be	9	0.075	ug/L	0.007	8	11	241	7
	C	13		ug/L			80899	88005	0
	Cl	37		ug/L			4140238	4170687	2
>	Sc	45		ug/L			1070141	1043906	2
	Al	27	2073.883	ug/L	22.154	1	6167	67856792	3
	V	51	4.199	ug/L	0.092	2	8787	91752	3
	V-1	51	4.210	ug/L	0.099	2	45	83798	3
	Cr	52	3.079	ug/L	0.052	1	25797	75460	1
	Cr	53	3.132	ug/L	0.044	1	119	5983	1
	Fe	54	2414.890	ug/L	43.808	1	71682	2847502	1
	Fe	57	2247.159	ug/L	35.910	1	9627	1026633	1
	Mn	55	83.278	ug/L	2.517	3	492	1896057	0
	Co	59	0.997	ug/L	0.030	3	78	16517	3
>	Ge	72		ug/L			580442	525667	0
	Ni	60	2.365	ug/L	0.033	1	28	7845	0
	Ni	62	2.208	ug/L	0.025	1	309	1301	0
	Cu	63	4.749	ug/L	0.104	2	301	35280	2
	Cu	65	4.786	ug/L	0.128	2	43	15927	2
	Zn	66	103.844	ug/L	1.764	1	184	198753	1
	Zn	67	92.131	ug/L	1.996	2	30	29770	2
	Zn	68	102.935	ug/L	2.482	2	181	141055	2
	As	75	2.110	ug/L	0.034	1	180	4012	1
	As-1	75	2.286	ug/L	0.080	3	11796	14857	0
	Se	82	0.036	ug/L	0.013	37	0	7	37
	Se	78	0.799	ug/L	0.186	23	11951	11210	0
	Mo	98	0.065	ug/L	0.003	4	6	281	3
	Y	89		ug/L			356764	356414	1
	Kr	83		ug/L			473	487	1
>	In	115		ug/L			987844	939649	0
	Ag	107	0.094	ug/L	0.005	4	15	1061	5
	Cd	111	2.108	ug/L	0.042	2	64	9519	2
	Cd	114	2.108	ug/L	0.004	0	38	23638	0
	Sb	121	0.080	ug/L	0.003	4	27	1074	3
	Sb	123	0.083	ug/L	0.004	5	21	838	5
	Ba	135	25.025	ug/L	0.320	1	16	103435	0
	Ba	137	24.837	ug/L	0.358	1	32	177254	1
>	Tb	159		ug/L			1186851	1086011	2
	Tl	205	0.081	ug/L	0.001	1	48	2755	2
	Pb	208	80.003	ug/L	0.076	0	169	3374163	2
	Bi	209		ug/L			2692417	2507130	2
	Th	232	0.890	ug/L	0.011	1	61	34707	1
	U	238	0.259	ug/L	0.002	0	6	11028	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 14:56:48
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	923538 ✓	1
	Be	9	49.285	ug/L	0.978	1	11	149283	0
	C	13		ug/L			80899	84639	1
	Cl	37		ug/L			4140238	4287530	2
>	Sc	45		ug/L			1070141	1023380 ✓	1
	Al	27	4949.369	ug/L	191.490	3	6167	158681615	2
	V	51	48.184	ug/L	1.106	2	8787	943840	1
	V-1	51	47.786	ug/L	1.363	2	45	931650	1
	Cr	52	48.697	ug/L	0.181	0	25797	804795	1
	Cr	53	47.339	ug/L	1.067	2	119	87043	0
	Fe	54	4962.656	ug/L	35.889	0	71682	5665963	2
	Fe	57	4942.377	ug/L	57.126	1	9627	2202752	1
	Mn	55	46.373	ug/L	1.247	2	492	1035472	1
	Co	59	49.206	ug/L	1.195	2	78	795631	0
>	Ge	72		ug/L			580442	532720 ✓	0
	Ni	60	49.866	ug/L	0.409	0	28	167143	0
	Ni	62	49.148	ug/L	0.595	1	309	23323	0
	Cu	63	49.818	ug/L	0.921	1	301	372483	1
	Cu	65	49.713	ug/L	0.360	0	43	167290	0
	Zn	66	49.229	ug/L	1.018	2	184	95578	2
	Zn	67	50.877	ug/L	0.371	0	30	16671	0
	Zn	68	50.609	ug/L	0.956	1	181	70360	1
	As	75	49.714	ug/L	0.551	1	180	92060	0
	As-1	75	49.925	ug/L	0.470	0	11796	103217	0
	Se	82	50.268	ug/L	0.407	0	0	9678	0
	Se	78	51.034	ug/L	0.092	0	11951	36081	0
	Mo	98	50.446	ug/L	0.879	1	6	217660	2
	Y	89		ug/L			356764	336171	0
	Kr	83		ug/L			473	483	1
>	In	115		ug/L			987844	921560 ✓	1
	Ag	107	50.671	ug/L	1.485	2	15	555197	1
	Cd	111	50.206	ug/L	0.625	1	64	220925	0
	Cd	114	50.439	ug/L	0.492	0	38	553824	1
	Sb	121	49.854	ug/L	0.178	0	27	641739	1
	Sb	123	49.804	ug/L	0.669	1	21	483759	0
	Ba	135	48.983	ug/L	0.701	1	16	198533	0
	Ba	137	49.144	ug/L	0.538	1	32	343899	0
>	Tb	159		ug/L			1186851	1101489 ✓	0
	Tl	205	47.571	ug/L	0.353	0	48	1613738	0
	Pb	208	49.033	ug/L	0.166	0	169	2097585	0
	Bi	209		ug/L			2692417	2447721	0
	Th	232	48.103	ug/L	0.205	0	61	1900868	0
	U	238	52.301	ug/L	0.532	1	6	2261423	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 20, 2012 15:03:47
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\112012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			960865	890247 ✓	0
	Be	9	0.000	ug/L	0.002	444	11	12	44
	C	13		ug/L			80899	83767	3
	Cl	37		ug/L			4140238	4124252	1
>	Sc	45		ug/L			1070141	970301 ✓	1
	Al	27	0.043	ug/L	0.030	69	6167	6900	12
	V	51	-0.011	ug/L	0.009	82	8787	7763	0
	V-1	51	0.001	ug/L	0.001	118	45	54	28
	Cr	52	-0.026	ug/L	0.028	105	25797	22988	0
	Cr	53	0.014	ug/L	0.001	9	119	132	2
	Fe	54	0.153	ug/L	1.060	692	71682	65154	1
	Fe	57	1.827	ug/L	1.322	72	9627	9494	5
	Mn	55	-0.000	ug/L	0.001	383	492	442	3
	Co	59	0.001	ug/L	0.000	41	78	87	7
>	Ge	72		ug/L			580442	514768 ✓	2
	Ni	60	0.002	ug/L	0.002	90	28	31	20
	Ni	62	-0.368	ug/L	0.032	8	309	108	13
	Cu	63	-0.021	ug/L	0.000	1	301	117	1
	Cu	65	0.002	ug/L	0.002	107	43	43	10
	Zn	66	0.010	ug/L	0.011	113	184	181	13
	Zn	67	0.002	ug/L	0.017	679	30	28	19
	Zn	68	0.018	ug/L	0.014	77	181	185	7
	As	75	0.018	ug/L	0.001	7	180	191	3
	As-1	75	0.299	ug/L	0.135	45	11796	10992	0
	Se	82	-0.052	ug/L	0.051	96	0	-9	98
	Se	78	1.096	ug/L	0.503	45	11951	11116	0
	Mo	98	0.009	ug/L	0.001	8	6	43	8
	Y	89		ug/L			356764	323402	1
	Kr	83		ug/L			473	476	6
>	In	115		ug/L			987844	913764 ✓	0
	Ag	107	0.003	ug/L	0.003	80	15	52	57
	Cd	111	0.006	ug/L	0.002	32	64	85	10
	Cd	114	0.001	ug/L	0.002	133	38	49	36
	Sb	121	0.063	ug/L	0.004	5	27	826	4
	Sb	123	0.062	ug/L	0.003	4	21	621	4
	Ba	135	0.003	ug/L	0.001	39	16	27	17
	Ba	137	0.003	ug/L	0.001	39	32	49	16
>	Tb	159		ug/L			1186851	1075718 ✓	0
	Tl	205	0.010	ug/L	0.005	53	48	361	47
	Pb	208	0.002	ug/L	0.001	50	169	226	16
	Bi	209		ug/L			2692417	2497740	0
	Th	232	0.106	ug/L	0.004	4	61	4130	4
	U	238	0.002	ug/L	0.000	21	6	94	20

Fmd CCP

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-7-12

Page: 1 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	SNM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.26	Eq in CLP %R=91 ✓
ICB			-0.01	✓
CCV1			3.49	%R=92 ✓
CCB1			-0.00	✓
CRA			0.10	✓
VSIB MB1			0.01	✓
" MB1DPK			1.90	%R=95 ✓
" A			1.08	
" ADUP			1.05	RPD=2.81 ✓
" ASPK			2.04	%R=96 ✓
" B				
" C				
" D				
" E				
CCV2			3.65	%R=91 ✓
CCB2			0.00	✓
VSIB F				DEL CVOUT
" G				
" H				
" I				
" J				
" K				
" L	↓	↓		→

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2092-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 2 of 10

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VR37	MB1	5mm	1X	0.00	DEL CV out	√
"	MB1SPK			2.04	%R=102	√
"	A			0.19		
CCV3				1.76	%R=44 LOW	X
CCV4				3.63	%R=91	√
CCB3				0.00		√
VS18	F					
"	G					
"	H					
"	I					
"	J					
"	K					
"	L					
VR37	MB1			0.01		√
"	MB1SPK			1.74	%R=87	√
"	A			0.16		
CCV5				3.59	%R=90	√
CCB4				0.00		√
VR37	ADUP			0.15		√
"	ASPK			1.12	%R=9K	√
"	B					
"	C					
"	D					
"	E					
"	F					
"	G					
"	H					
"	I					
CCV6				3.60	%R=90	√
CCB5		↓	↓	0.00		√

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2340

Standard ID:

Standard: 2992-7

ICV/CCV: SC-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-7-12

Page: 3 of 10

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VR57	J	SMM	1X			
"	K					
"	L					
"	M					
"	N					
"	O					
VR58	MB1			-0.00		✓
"	MB1SPK			1.81	%R=91	✓
"	A			0.11		
"	ADUP			0.10		✓
CCV7				3.64	%R=91	✓
CCB6				0.00		✓
VR58	ASPK			1.07	%R=96	✓
"	B					
"	C					
"	D					
"	E					
"	F					
"	G					
"	H					
"	I					
"	J					
CCV8				3.61	%R=90	✓
CCB7				-0.00		✓
VR82	A					
"	B					
"	C					
"	D					
"	E					
"	F					

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2340

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 4 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR82 G	SMM	1X		
" H				
" I				
CCV9			3.56	%R=89 ✓
CCB8			0.00	✓
VR80 MB1			-0.00	✓
" MB1SPK			1.82	%R=91 ✓
" A			0.92	
" ADUP			0.93	RPD=1.08 ✓
" ASPK			1.78	%R=86 ✓
" B				
" C				
" D				
" E				
" F				
CCV10			3.71	%R=93 ✓
CCB9			-0.00	✓
VR80 G				
" H				
" I				
" J				
" K				
" L				
VR86 MB1			0.00	✓
" MB1SPK			1.89	%R=95 ✓
" A			0.77	
" ADUP			0.74	RPD=3.97 ✓
CCV11			3.72	%R=93 ✓
CCB10			0.00	✓
VR86 ASPK	↓	↓	1.72	%R=95 ✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2092-7

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 5 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR36 B	SMM	1X		
" C				
" D				
" E				
" F				
" G				
" H				
" I				
" J				
CCV12			3.66	%R=92 ✓
CCB11			-0.00	✓
VR36 K				
" L				
VR35 MB1			0.00	✓
" MB1SPK			1.84	%R=92 ✓
" A			0.34	
" ADUP			0.34	✓
" ASPK			1.29	%R=95 ✓
" B				
" C				
" D				
CCV13			3.61	%R=90 ✓
CCB12			-0.03	✓
VR35 E				
" F				
" G				
" H				
" I				
" J				
" K				

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 20927

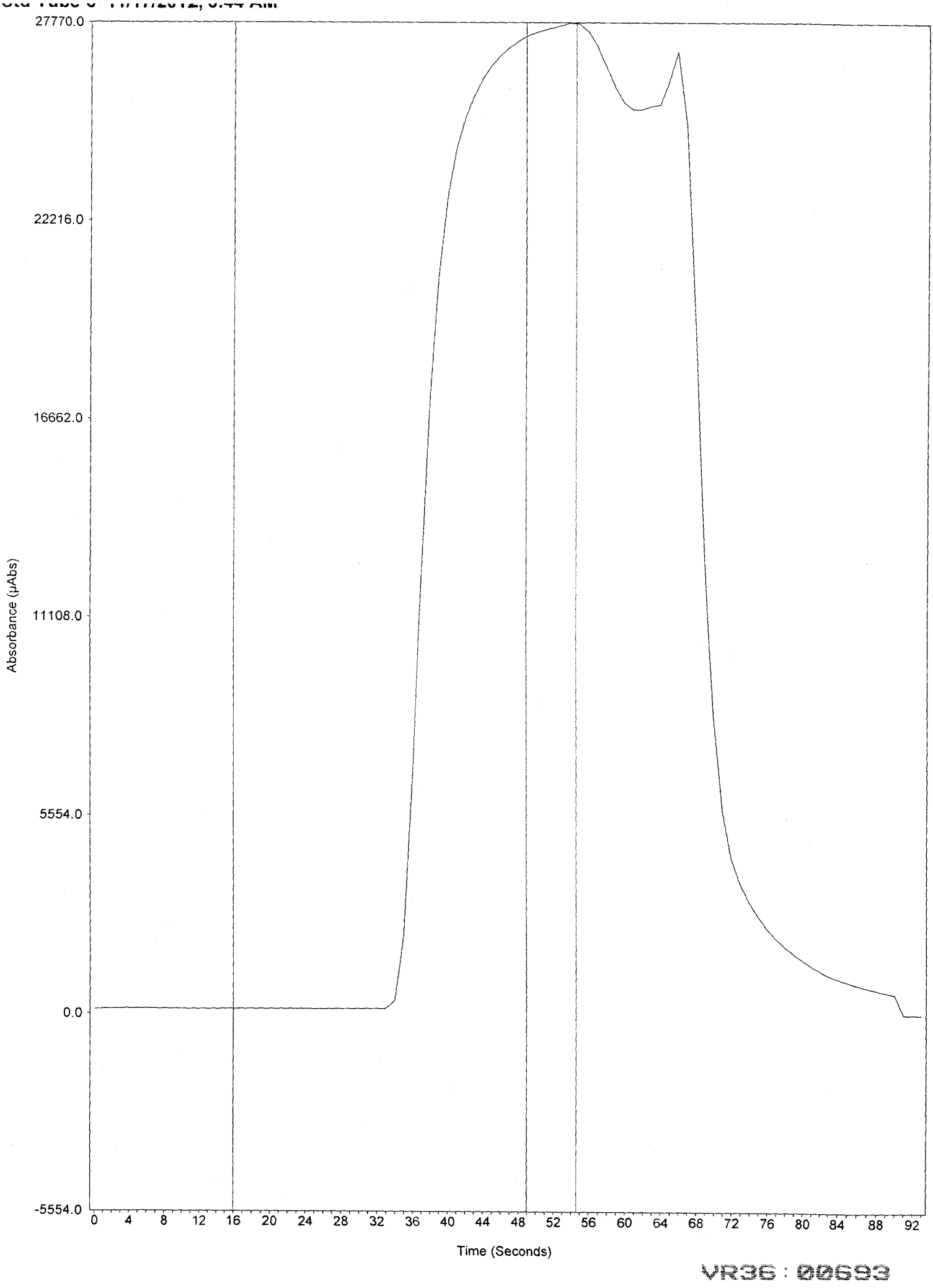
ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) Analysis Date: 11-17-12

	Analyst 11-17 DM	Peer 11-19	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 RUN 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	✓	✓	See VR33 ASPC
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	✓	✓	See CAF


27770.0
22216.0
16662.0
11108.0
5554.0
0.0
-5554.0
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)
VR36 : 00693

CETAC Hg Analysis Report - 12111700.DB - Saturday, November 17, 2012, 2:36:51 PM

✓ 11-19-12 KS

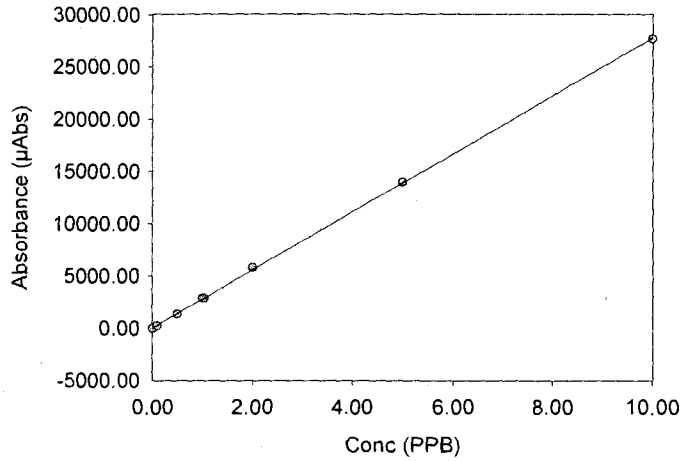
Analyst
Date Started Saturday, November 17, 2012, 06:44:12
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	17-Nov-2012, 06:44	10.00	0.46	27500.00	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	17-Nov-2012, 06:46	0.00	4.58	-33.10	1.00	
Standard #1	17-Nov-2012, 06:47	0.10	0.53	261.00	1.00	
Standard #2	17-Nov-2012, 06:49	0.50	0.24	1400.00	1.00	
Standard #3	17-Nov-2012, 06:51	1.00	0.45	2840.00	1.00	
Standard #4	17-Nov-2012, 06:52	2.00	0.54	5790.00	1.00	
Standard #5	17-Nov-2012, 06:54	5.00	0.29	14000.00	1.00	
Standard #6	17-Nov-2012, 06:56	10.00	0.39	27700.00	1.00	

Calibration Data



Int.	0.000
Slope	2778.015
Correlation	0.99994

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	17-Nov-2012, 07:05	7.26	0.75	20200.00	1.00	
ICB	17-Nov-2012, 07:06	-0.01	13.00	-18.40	1.00	

Bcg in CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:08	3.69	0.28	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:09	-0.00	56.00	-2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	17-Nov-2012, 07:11	0.10	0.42	267.00	1.00	
VS18 MB1 SMM	17-Nov-2012, 07:13	0.01	13.00	20.30	1.00	
VS18 MB1SPK SMM	17-Nov-2012, 07:14	1.90	0.60	5270.00	1.00	
VS18 A SMM	17-Nov-2012, 07:16	1.08	0.64	3000.00	1.00	
VS18 ADUP SMM	17-Nov-2012, 07:17	1.05	0.46	2910.00	1.00	
VS18 ASPK SMM	17-Nov-2012, 07:19	2.04	0.80	5660.00	1.00	
VS18 B SMM	17-Nov-2012, 07:21	0.70	0.68	1940.00	1.00	
VS18 C SMM	17-Nov-2012, 07:22	0.59	0.86	1640.00	1.00	
VS18 D SMM	17-Nov-2012, 07:24	0.77	0.48	2150.00	1.00	
VS18 E SMM	17-Nov-2012, 07:26	0.71	0.45	1970.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:27	3.65	0.49	10100.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 07:29:22
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:29	0.00	11.10	10.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 07:31	0.31	1.08	873.00	1.00	
VS18 G SMM	17-Nov-2012, 07:32	0.25	0.62	691.00	1.00	
VS18 H SMM	17-Nov-2012, 07:34	1.02	1.42	2840.00	1.00	
VS18 I SMM	17-Nov-2012, 07:35	3.94	0.68	10900.00	1.00	
VS18 J SMM	17-Nov-2012, 07:37	2.53	0.19	7030.00	1.00	
VS18 K SMM	17-Nov-2012, 07:38	1.94	0.22	5380.00	1.00	
VS18 L SMM	17-Nov-2012, 07:40	0.88	0.27	2440.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 07:42	0.00	17.70	12.90	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 07:43	2.04	0.47	5660.00	1.00	
VR37 A SMM	17-Nov-2012, 07:45	0.19	0.58	514.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:47	1.76	0.86	4880.00	1.00	Q - Low %R
QC Standard	17-Nov-2012, 07:58	3.63	0.54	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:00	0.00	11.60	11.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 08:02	0.30	0.58	846.00	1.00	
VS18 G SMM	17-Nov-2012, 08:03	0.25	0.72	683.00	1.00	
VS18 H SMM	17-Nov-2012, 08:05	1.00	0.78	2780.00	1.00	
VS18 I SMM	17-Nov-2012, 08:06	3.88	0.67	10800.00	1.00	
VS18 J SMM	17-Nov-2012, 08:08	2.42	0.57	6730.00	1.00	
VS18 K SMM	17-Nov-2012, 08:09	1.81	0.67	5030.00	1.00	
VS18 L SMM	17-Nov-2012, 08:11	0.79	0.94	2190.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 08:13	0.01	4.00	19.20	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 08:14	1.74	0.56	4840.00	1.00	
VR37 A SMM	17-Nov-2012, 08:16	0.16	1.44	442.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:18	3.59	0.50	9980.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:19	0.00	13.00	9.15	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 ADUP SMM	17-Nov-2012, 08:21	0.15	0.54	416.00	1.00	
VR37 ASPK SMM	17-Nov-2012, 08:23	1.12	0.62	3120.00	1.00	
VR37 B SMM	17-Nov-2012, 08:24	0.09	0.36	242.00	1.00	
VR37 C SMM	17-Nov-2012, 08:26	0.28	1.03	768.00	1.00	
VR37 D SMM	17-Nov-2012, 08:27	1.41	0.61	3910.00	1.00	
VR37 E SMM	17-Nov-2012, 08:29	2.23	0.82	6190.00	1.00	
VR37 F SMM	17-Nov-2012, 08:31	0.79	0.67	2210.00	1.00	
VR37 G SMM	17-Nov-2012, 08:32	2.39	0.51	6630.00	1.00	
VR37 H SMM	17-Nov-2012, 08:34	3.87	0.37	10800.00	1.00	
VR37 I SMM	17-Nov-2012, 08:35	0.48	0.20	1340.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:37	3.60	0.66	9990.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:39	0.00	124.00	1.77	1.00	

Analyst
Date Started Saturday, November 17, 2012, 08:40:49
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 J SMM	17-Nov-2012, 08:40	1.27	0.51	3520.00	1.00	
VR37 K SMM	17-Nov-2012, 08:42	1.51	2.55	4190.00	1.00	
VR37 L SMM	17-Nov-2012, 08:44	1.16	0.58	3220.00	1.00	
VR37 M SMM	17-Nov-2012, 08:45	1.05	0.38	2900.00	1.00	
VR37 N SMM	17-Nov-2012, 08:47	1.19	0.74	3310.00	1.00	
VR37 O SMM	17-Nov-2012, 08:48	0.83	0.81	2300.00	1.00	
VR58 MB1 SMM	17-Nov-2012, 08:50	-0.00	33.50	-6.40	1.00	
VR58 MB1SPK SMM	17-Nov-2012, 08:52	1.81	0.54	5040.00	1.00	
VR58 A SMM	17-Nov-2012, 08:53	0.11	0.89	295.00	1.00	
VR58 ADUP SMM	17-Nov-2012, 08:55	0.10	0.57	281.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:56	3.64	0.48	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:58	0.00	9.27	8.18	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR58 ASPK SMM	17-Nov-2012, 09:00	1.07	0.63	2970.00	1.00	
VR58 B SMM	17-Nov-2012, 09:01	0.10	0.59	283.00	1.00	
VR58 C SMM	17-Nov-2012, 09:03	0.11	0.53	309.00	1.00	
VR58 D SMM	17-Nov-2012, 09:05	0.10	0.66	274.00	1.00	
VR58 E SMM	17-Nov-2012, 09:06	0.11	0.48	304.00	1.00	
VR58 F SMM	17-Nov-2012, 09:08	0.41	0.62	1150.00	1.00	
VR58 G SMM	17-Nov-2012, 09:10	0.06	0.39	175.00	1.00	
VR58 H SMM	17-Nov-2012, 09:11	0.06	0.63	161.00	1.00	
VR58 I SMM	17-Nov-2012, 09:13	0.10	1.03	271.00	1.00	
VR58 J SMM	17-Nov-2012, 09:14	0.05	1.41	126.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:16	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:18	-0.00	300.00	-1.14	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR82 A SMM	17-Nov-2012, 09:19	0.22	0.73	605.00	1.00	
VR82 B SMM	17-Nov-2012, 09:21	0.10	2.50	265.00	1.00	
VR82 C SMM	17-Nov-2012, 09:23	0.08	1.51	214.00	1.00	
VR82 D SMM	17-Nov-2012, 09:24	0.11	1.66	312.00	1.00	
VR82 E SMM	17-Nov-2012, 09:26	0.15	0.65	428.00	1.00	
VR82 F SMM	17-Nov-2012, 09:28	0.16	0.78	453.00	1.00	
VR82 G SMM	17-Nov-2012, 09:29	0.13	0.84	355.00	1.00	
VR82 H SMM	17-Nov-2012, 09:31	0.12	0.60	343.00	1.00	
VR82 I SMM	17-Nov-2012, 09:32	0.12	0.86	328.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:34	3.56	0.61	9900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:36	0.00	42.80	6.11	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 MB1 SMM	17-Nov-2012, 09:38	-0.00	64.10	-2.94	1.00	
VR30 MB1SPK SMM	17-Nov-2012, 09:39	1.82	0.61	5060.00	1.00	
VR30 A SMM	17-Nov-2012, 09:41	0.92	0.74	2550.00	1.00	
VR30 ADUP SMM	17-Nov-2012, 09:43	0.93	0.60	2590.00	1.00	
VR30 ASPK SMM	17-Nov-2012, 09:44	1.78	0.74	4940.00	1.00	
VR30 B SMM	17-Nov-2012, 09:46	0.58	0.75	1620.00	1.00	
VR30 C SMM	17-Nov-2012, 09:47	0.68	0.60	1890.00	1.00	
VR30 D SMM	17-Nov-2012, 09:49	0.80	0.75	2230.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 09:51:06
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 E SMM	17-Nov-2012, 09:51	0.55	0.51	1540.00	1.00	
VR30 F SMM	17-Nov-2012, 09:52	0.67	0.54	1860.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 09:54	3.71	0.80	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 09:56	-0.00	235.00	-1.21	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR30 G SMM	17-Nov-2012, 09:57	0.82	0.55	2280.00	1.00	
VR30 H SMM	17-Nov-2012, 09:59	0.58	0.47	1610.00	1.00	
VR30 I SMM	17-Nov-2012, 10:00	0.60	1.07	1670.00	1.00	
VR30 J SMM	17-Nov-2012, 10:02	0.53	3.49	1480.00	1.00	
VR30 K SMM	17-Nov-2012, 10:04	0.67	0.52	1870.00	1.00	
VR30 L SMM	17-Nov-2012, 10:05	0.81	0.51	2260.00	1.00	
VR36 MB1 SMM	17-Nov-2012, 10:07	0.00	24.00	6.55	1.00	
VR36 MB1SPK SMM	17-Nov-2012, 10:08	1.89	0.89	5240.00	1.00	
VR36 A SMM	17-Nov-2012, 10:10	0.77	0.47	2130.00	1.00	
VR36 ADUP SMM	17-Nov-2012, 10:12	0.74	0.37	2050.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:13	3.72	0.44	10300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:15	0.00	103.00	2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 ASPK SMM	17-Nov-2012, 10:17	1.72	0.45	4770.00	1.00	
VR36 B SMM	17-Nov-2012, 10:18	2.59	0.47	7210.00	1.00	
VR36 C SMM	17-Nov-2012, 10:20	1.64	0.64	4540.00	1.00	
VR36 D SMM	17-Nov-2012, 10:22	1.79	0.44	4980.00	1.00	
VR36 E SMM	17-Nov-2012, 10:23	0.37	0.51	1040.00	1.00	
VR36 F SMM	17-Nov-2012, 10:25	0.18	0.87	511.00	1.00	
VR36 G SMM	17-Nov-2012, 10:26	0.13	0.85	371.00	1.00	
VR36 H SMM	17-Nov-2012, 10:28	1.34	0.57	3710.00	1.00	
VR36 I SMM	17-Nov-2012, 10:30	1.20	0.50	3330.00	1.00	
VR36 J SMM	17-Nov-2012, 10:31	1.04	0.35	2890.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:33	3.66	0.32	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:34	-0.00	6.61	-7.46	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR36 K SMM	17-Nov-2012, 10:36	2.70	0.46	7500.00	1.00	
VR36 L SMM	17-Nov-2012, 10:38	0.27	0.35	752.00	1.00	
VR35 MB1 SMM	17-Nov-2012, 10:39	0.00	17.80	8.76	1.00	
VR35 MB1SPK SMM	17-Nov-2012, 10:41	1.84	0.58	5120.00	1.00	
VR35 A SMM	17-Nov-2012, 10:43	0.34	0.50	941.00	1.00	
VR35 ADUP SMM	17-Nov-2012, 10:44	0.34	0.37	935.00	1.00	
VR35 ASPK SMM	17-Nov-2012, 10:46	1.29	0.57	3580.00	1.00	
VR35 B SMM	17-Nov-2012, 10:48	0.42	0.73	1160.00	1.00	
VR35 C SMM	17-Nov-2012, 10:49	0.07	1.65	193.00	1.00	
VR35 D SMM	17-Nov-2012, 10:51	0.06	0.49	162.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 10:52:53
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 10:52	3.61	0.66	10000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 10:54	-0.03	5.41	-77.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR35 E SMM	17-Nov-2012, 10:56	0.23	0.62	648.00	1.00	
VR35 F SMM	17-Nov-2012, 10:57	1.55	0.66	4300.00	1.00	
VR35 G SMM	17-Nov-2012, 10:59	1.46	0.62	4060.00	1.00	
VR35 H SMM	17-Nov-2012, 11:01	0.41	0.48	1140.00	1.00	
VR35 I SMM	17-Nov-2012, 11:02	1.17	1.09	3260.00	1.00	
VR35 J SMM	17-Nov-2012, 11:04	0.93	0.51	2590.00	1.00	
VR35 K SMM	17-Nov-2012, 11:06	1.11	0.64	3080.00	1.00	
VR35 L SMM	17-Nov-2012, 11:07	1.31	0.58	3630.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:09	3.55	0.50	9850.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:11	-0.00	33.50	-2.69	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 MB1 SMM	17-Nov-2012, 11:13	0.01	3.64	20.40	1.00	
VR32 MB1SPK SMM	17-Nov-2012, 11:14	1.79	0.83	4960.00	1.00	
VR32 A SMM	17-Nov-2012, 11:16	0.47	0.63	1300.00	1.00	
VR32 ADUP SMM	17-Nov-2012, 11:17	0.44	0.66	1220.00	1.00	
VR32 ASPK SMM	17-Nov-2012, 11:19	1.37	0.54	3810.00	1.00	
VR32 B SMM	17-Nov-2012, 11:21	0.82	0.58	2280.00	1.00	
VR32 C SMM	17-Nov-2012, 11:22	0.31	0.79	871.00	1.00	
VR32 D SMM	17-Nov-2012, 11:24	0.43	0.58	1200.00	1.00	
VR32 E SMM	17-Nov-2012, 11:25	0.50	0.71	1390.00	1.00	
VR32 F SMM	17-Nov-2012, 11:27	0.39	0.77	1080.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:29	3.45	0.56	9570.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:30	-0.00	49.10	-3.41	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR32 G SMM	17-Nov-2012, 11:32	0.31	0.19	870.00	1.00	
VR32 H SMM	17-Nov-2012, 11:34	0.24	0.61	659.00	1.00	
VR32 I SMM	17-Nov-2012, 11:35	0.25	0.45	692.00	1.00	
VR32 J SMM	17-Nov-2012, 11:37	0.17	0.58	483.00	1.00	
VR32 K SMM	17-Nov-2012, 11:38	0.37	0.81	1020.00	1.00	
VR32 L SMM	17-Nov-2012, 11:40	2.05	0.61	5700.00	1.00	
VR65 MB1 SMM	17-Nov-2012, 11:42	0.03	1.01	82.40	1.00	
VR65 MB1SPK SMM	17-Nov-2012, 11:43	1.74	0.69	4820.00	1.00	
VR65 A SMM	17-Nov-2012, 11:45	1.22	0.84	3390.00	1.00	
VR65 ADUP SMM	17-Nov-2012, 11:46	1.18	0.77	3290.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 11:48	3.54	0.50	9830.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 11:50	0.00	38.40	2.95	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: SMM Instrument: CETAC
Analyst: DM Date: 11-16-12
Bath Temp: 95°C Start Time: 1213 End Time: 1243

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	2992-7	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: I7477 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: TLM Digested 20.0mL Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1247 End Time: 1447

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	2992-8	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	↓	002	↓	002	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	2992-9	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:
HNO_3: I7833 H_2SO_4: I7477 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: 11-15-12
Bath Temp: 95°C Start Time: 1249 End Time: 1319

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR36 A	1	—	0.710	50.0	11-18 1	YES	
" ADUP	1	—	0.707		1		
" ASPK	1	—	0.709		1		
" B	1	—	0.709		1		
" C	1	—	0.746		1		
" D	1	—	0.712		1		
" E	1	—	0.731		1		
" F	1	—	0.733		1		
" G	1	—	0.708		1		
" H	1	—	0.707		1		
" I	1	—	0.722		1		
" J	1	—	0.742		1		
" K	1	—	0.724		1		
" L	1	—	0.728		1		
" MBI	—	—	—	↓	1		
" MBISPK	—	—	—	50.0	1	↓	
				NB 11-15-12			

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
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: DM
Bath Temp: 95°C
Start Time: 1525
Matrix: Soil
Date: 11-15-12
End Time: 1555

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VR37 A	1	—	0.717	50.0	11/18 1	Y	
" ADUP	1	—	0.715		1		
" ASPK	1	—	0.720		1		
" B	1	—	0.708		1		
" C	1	—	0.734		1		
" D	1	—	0.741		1		
" E	1	—	0.734		1		
" F	1	—	0.732		1		
" G	1	—	0.736		1		
" H	1	—	0.727		1		
" I	1	—	0.737		1		
" J	1	—	0.709		1		
" K	1	—	0.740		1		
" L	1	—	0.736		1		
" M	1	—	0.721		1		
" N	1	—	0.711		1		
" O	1	—	0.715		1		
" MB1	—	—	—	↓	1	↓	
" MBSPK	—	—	—	50.0	1	Y	

11-15-12 DM

Chemical/Reagent ID:

HNO_3: I16833
H_2SO_4: I1677
HCl: —
5% $K_2S_2O_8$: MP2515
5% $KMnO_4$: MP2516
Digest Tube Lot: 1205258

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VR36, VR37

W

11-19-12

Soil - pH

meter: Orion Model 115

Date: 11/16/2012

Analyst: KE 11:10

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)* 20.3

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	6.96			OK@ 99.4%
VR34 K1	20	20	20.1	5.46			
VR34 K1	20	20	20.2	5.53			
VR35 A1	20	20	20.2	5.11			
VR35 A1 du	20	20	20.2	5.09			pH RPD =0.39%
VR35 B1	20	20	20.2	5.10			
VR35 C1	20	20	20.3	6.07			
VR35 D1	20	20	20.2	5.98			
VR35 E1	20	20	20.1	6.02			
VR35 F1	20	20	20.3	5.18			
VR35 G1	20	20	20.2	5.30			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VR35 H1	20	20	20.8	6.17			
VR35 I 1	20	20	20.2	5.78			
VR35 J 1	20	20	20.3	5.65			
VR35 K1	20	20	20.2	6.15			
VR35 L1	20	20	20.2	5.48			
VR36 A1	20	20	20.2	5.23			
VR36 B1	20	20	20.2	5.12			
VR36 C1	20	20	20.2	5.89			
VR36 D1	20	20	20.2	5.64			
VR36 E1	20	20	20.2	5.69			
pH 7 Buffer			20.8	7.04			OK@ 100.6%
VR36 F1	20	20	20.2	5.82			
VR36 G1	20	20	20.3	5.69			
VR36 H1	20	20	20.2	5.43			
VR36 I 1	20	20	20.2	5.66			
VR36 J 1	20	20	20.2	5.32			
VR36 K1	20	20	20.1	4.89			
VR36 L1	20	20	20.2	5.50			
VR37 A1	20	20	20.1	5.66			
VR37 A1 du	20	20	20.1	5.68			pH RPD =0.35%
VR37 B1	20	20	20.1	5.65			
pH 7 Buffer			20.7	7.03			OK@ 100.4%
VR37 C1	20	20	20.2	5.70			
VR37 D1	20	20	20.2	5.62			
VR37 E1	20	20	20.0	5.43			
VR37 F1	20	20	20.0	5.66			
VR37 G1	20	20	20.0	5.56			
VR37 H1	20	20	20.1	5.76			
VR37 I 1	20	20	20.0	5.59			
VR37 J 1	20	20	21.5	6.02			
VR37 K1	20	20	20.2	5.97			
VR37 L1	20	20	20.2	6.41			
pH 7 Buffer			20.6	7.03			OK@ 100.4%
VR37 M1	20	20	20.1	5.74			
VR37 N1	20	20	20.1	6.12			
VR37 O1	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			OK@ 100.6%

① 11-2/6-12 (2)

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-16-12

Analyst: (2) 11:10

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)* 20.3

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	6.96			
VR34 K1	20	20	20.1	5.46			
↓ L1	↓	↓	20.2	5.53			
VR35 A1			20.2	5.11			
A1			20.2	5.09			
B1			20.2	5.10			
C1			20.3	~~5.20~~	6.07		
D1			20.2	~~6.09~~	5.98		
E1			20.1	6.02			
F1			20.3	5.18			
↓ G1	↓	↓	20.2	5.30			
pH 7 Buffer			20.4	6.99			
VR35 H1	20	20	20.8	6.17			
I1	↓	↓	20.2	5.78			
J1	10	20	20.3	5.65			
K1	20	20	20.2	~~5.66~~	6.15		
↓ L1	↓	↓	20.2	~~6.15~~	5.48		
VR36 A1			20.2	~~5.48~~	5.23		
B1			20.2	5.12			
C1			20.2	5.89			
D1			20.2	5.64			
↓ E1	↓	↓	20.2	5.69			
pH 7 Buffer			20.8	7.04			
VR36 F1	20	20	20.2	5.82			
G1			20.3	5.69			
H1			20.2	5.43			
I1			20.2	5.66			
J1			20.2	5.32			
K1			20.1	4.89			
↓ L1			20.2	5.50			
VR37 A1			20.1	5.66			
A1			20.1	5.68			
↓ B	↓	↓	20.1	5.65			
pH 7 Buffer			20.7	7.03			
VR37 C1	20	20	20.2	5.70			
D1	20	20	20.2	5.62			
E1	10	20	20.0	5.43			
F1	20	20	20.0	5.66			
G1	10	20	20.0	5.56			
H1	10	20	20.1	5.76			
I1	20	20	20.0	5.59			
J1	20	20	21.5	6.02			
K1	10	40	20.2	5.97			
↓ L1	10	20	① 20.2	~~20.0~~	6.41		
pH 7 Buffer			20.6	7.03			

Soil Conductivity - pH Page 2 of 2

meter: Orion Model 115

Date: 11-16-12

Analyst: (W) 11:10

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)* 20.1

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~~			~~11-16-12~~				
VR37 m1	10	20	20.1	5.74			
" m2	10	20	20.1	6.12			
" 0	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			
pH 7 Buffer							
pH 7 Buffer							
pH 7 Buffer							
pH 7 Buffer							

11-16-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Page 1 of 3

(1) 11-16-12 (W)

Calibration

			Buffer	Source	Lot #	pH	Temp.
Date:	11-15-12						
Time:	13:50		2.00	Ricca	1505264	2.00	20.3
Analyst:	(W)		4.00	Fisher	108305	4.00	20.1
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.3
			12.00	Ricca	1206157	12.00	20.2
			Verification	Fisher	120143	7.03	20.1

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
(W)	14:52	ICV	6.96	6.96	Soil pH		20.3
↓	↓	VR34 ~~VR39~~ (1) K'	5.45	5.46		↓	20.1
		↓ L'	5.55	5.53			20.2
		VR35 A'	5.11	5.11			20.2
		A	5.09	5.09			20.2
		B'	5.10	5.10			20.2
		C' ~~B~~ (1)	(1) ~~5.40~~ 6.08	~~5.92~~ 6.07			20.3
		D'	(1) ~~6.08~~ 5.97	~~6.07~~ (1) 5.98			20.2
		E'	6.02	6.02			20.1
		F' (1)	5.18	5.18			20.3
		↓ G' (1)	5.28	5.30			20.2
		CCV	6.99	6.99			20.4
		VR35 ~~X~~ (1)	6.17 H'	H' 6.17			20.8 ~~20.8~~ (1)
		H'	~~5.78~~	~~5.78~~	11-16-12		~~20.2~~
		I'	~~5.68~~ (2)	(1) ~~5.69~~ 5.78			(2) ~~20.2~~ 20.2
		J'	5.66	(1) ~~5.66~~ 5.65			20.3
		K'	6.12	6.15			20.2
		↓ L'	5.50	5.48			20.2
		VR36 A'	5.23	5.23			20.2
		B'	5.12	5.12			20.2
		C'	5.89	5.89			20.2
		D'	5.64	5.64			20.2
↓	↓	↓ ~~CCV~~ E'	5.68	5.69		↓	20.2

(2) 6.65 11-16-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	(W)		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Cont ✓

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	14:52	ICV	7.04	7.04		pH 5.01	20.8
		VR36F1	5.82	5.82			20.2
		G1	5.68	5.69			20.3
		H1	5.43	5.43			20.2
		I1	5.66	5.66			20.2
		J1	5.32	5.32			20.2
		K1	4.89	4.89			20.1
		L1	5.50	5.50			20.2
		VR37 A1	5.65	5.66			20.1
		dA1	5.68	5.68			20.1
		B1	5.64	5.65			20.1
		CCV	7.04	7.03			20.7
		VR37 C1	5.70	5.70			20.2
		D1	5.61	5.62			20.2
		E1	5.43	5.43			20.0
		F1	5.64	5.66			20.0
		G1	5.56	5.56			20.0
		H1	5.75	5.76			20.1
		I1	5.61	5.59			20.0
		J1	6.01	6.02			21.5
		K1	5.97	5.97			20.2
		L1	6.41	6.41			20.2
		CCV	7.04	7.03			20.6

Analytical Resources, Incorporated
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pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	(W)		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher	Cont		
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		ICV					
(W)	14:52	VR37M1	5.74	5.74	pH/Soil		20.1
↓	↓	N1	6.11	6.12	↓		20.1
↓	↓	D1	6.08	6.08	↓		20.2
↓	↓	CCV	7.04	7.04	↓		20.2
		CCV					
		CCV					

W
11-27-12

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: 11/16/12 (A)

ANALYST: CDE / UW /KE 20:04

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			13.1312		13.1314	0.2 mg	
VR36 I 1		-	13.1925	18.3643	18.3963	100.62%	
VR36 I 1 dup		-	13.1565	18.2236	18.2515	100.55%	RPD = 0.07%
VR36 I 1 trip		-	16.1346	18.1660	18.1951	101.43%	RSD = 0.49%
VR36 J 1		-	13.1719	18.0337	18.0727	100.80%	
VR36 K1		-	13.0968	17.1540	17.1467	99.82%	
VR36 L1		-	13.1515	18.2645	18.3410	101.50%	
VR37 A1		-	13.1086	17.9038	18.0095	102.20%	
VR37 B1		-	13.1581	17.8206	17.9381	102.52%	
VR37 C1		-	13.0482	17.6636	17.7810	102.54%	
VR37 D1		-	13.1900	18.0581	18.0669	100.18%	
VR37 E1		-	13.2000	16.8604	16.8799	100.53%	
VR37 F1		-	13.0763	16.8695	16.9446	101.98%	
VR37 G1		-	13.0763	16.7486	16.7562	100.21%	
VR37 H1		-	13.1224	17.2427	17.1315	97.30%	
VR37 I 1		-	13.1541	18.5296	18.6268	101.81%	
VR37 J 1		-	13.1564	17.3593	17.3306	99.32%	
VR37 K1		-	13.1227	15.2743	15.2089	96.96%	
VR37 L1		-	13.1526	16.8539	16.8258	99.24%	
VR37 M1		-	13.1685	16.4999	16.4681	99.05%	
VR37 N1		-	13.1506	16.4059	16.4016	99.87%	
VR37 O1		-	13.1559	17.8687	17.8577	99.77%	

(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 CM / AW Date 11-16-12 20:04

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1312	Ø	13.1314		
VR36 I1		–	13.1925	18.3643	18.1963		dry sol.
I1dup		–	13.1565	18.2236	18.2515		
I1TP		–	13.1346	18.1660	18.1957		
J1		–	13.1719	18.0337	18.0727		
K1		–	13.0968	17.1540	17.1467		
L1		–	13.1515	18.2645	18.3410		
VR37 A1		–	13.1086	17.9038	18.0095		
B1		–	13.1581	17.8206	17.9381		
C1		–	13.0482	17.6636	17.7810		
D1		–	13.1900	18.0581	18.0669		
E1		–	13.2000	16.8604	16.8799		
F1		–	13.0763	16.8695	16.9446		
G1		–	13.0763	16.7486	16.7562		
H1		–	13.1224	17.2427	17.1315		
I1		–	13.1541	18.5296	18.6268		
J1		–	13.1564	17.3593	17.3306		
K1		–	13.1227	15.2743	15.2089		
L1		–	13.1526	16.8539	16.8258		
M1		–	13.1685	16.4999	16.4681		
N1		–	13.1506	16.4059	16.4016		
O1		–	13.1559	17.8687	17.8577		

11-16-12 CM

W
11-23-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 11/15/2012

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

ANALYST: CDE 17:52

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: NA

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)*
11/15/2012 17:52	date/time in oven	KE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/16/2012 12:08	date/time out	CDE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	18.3			*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	11/15/12 17:30	11/14/12 13:37	11/16/12 12:26										
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	1.0882	1.0884			0.00							
VR35 A1		6.3793	1.0883	6.3566			5.27	99.6%						
VR35 A1 dup		6.6358	1.0939	6.6128			5.52	99.6%						
							RPD =	0.01%				RPD =	NA	
VR35 A1 trp		6.6491	1.1166	6.6198			5.50	99.5%						
							RSD =	0.06%				RSD =	NA	
VR35 B1		6.5185	1.0963	6.4909			5.39	99.5%						
VR35 C1		6.3004	1.0781	6.2568			5.18	99.2%						
VR35 D1		6.1930	1.0796	6.1823			5.10	99.8%						
VR35 E1		6.2841	1.0914	6.2696			5.18	99.7%						
VR35 F1		6.1856	1.0913	6.1228			5.03	98.8%						
VR35 G1		6.1639	1.0799	6.0448			4.96	97.7%						
VR35 H1		6.0970	1.1246	6.0470			4.92	99.0%						
VR35 I 1		6.6795	1.1010	6.5414			5.44	97.5%						
VR35 J1		6.0206	1.0527	5.9183			4.87	97.9%						
VR35 K1		6.4065	1.0972	6.3375			5.24	98.7%						
VR35 L1		6.6165	1.0728	6.5384			5.47	98.6%						
VR36 A1		6.1180	1.0609	6.0852			5.02	99.4%						
VR36 B1		6.7607	1.1132	6.5759			5.46	96.7%						
VR36 C1		6.1151	1.1379	6.0293			4.89	98.3%						
VR36 D1		6.1887	1.1340	6.0879			4.95	98.0%						
VR36 E1		6.7451	1.0693	6.6841			5.61	98.9%						
VR36 F1		6.8354	1.0923	6.7986			5.71	99.4%						
VR36 G1		6.8083	1.1232	6.7799			5.66	99.5%						
VR36 H1		6.1549	1.1096	6.0068			4.90	97.1%						

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analyst: (W) JDC	Date: 11-15-12	Oven ID: 12		Balance ID:	1123230597
Time in Oven: 17:52	Time Out of Oven:	11-16-12 12:08	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:	11-15-12 17:30	11-15-12 13:37	11-16-12 12:26						
Cal Weight (10.0000):	10.0000 (W)	10.0000 JDC	10.0000 CVL						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	24	Ø	1.0882	1.0884						
VA35 A1	25	6.3793	1.0883	6.3566						
dA1	26	6.6358	1.0939	6.6128						
tA1	27	6.6491	1.1166	6.6198						
B1	28	6.5185	1.0963	6.4909						
C1	29	6.3004	1.0781	6.2568						
D1	30	6.1930	1.0796	6.1823						
E1	31	6.2841	1.0914	6.2696						
F1	32	6.1856	1.0913	6.1228						
G1	33	6.1639	1.0799	6.0448						
H1	34	6.0970	1.1246	6.0470						
I1	35	6.6795	1.1010	6.5414						
J1	36	6.0206	1.0527	5.9183						
K1	37	6.4065	1.0972	6.3375						
L1	38	6.6165	1.0728	6.5384						
VA36 A1	39	6.1180	1.0609	6.0852						
B1	40	6.7607	1.1132	6.5759						
C1	41	6.1151	1.1379	6.0293						
D1	42	6.1887	~~1.1340~~ 1.1340	6.0879						
E1	43	6.7451	1.0693	6.6841						
F1	44	6.8354	1.0923	6.7986						
G1	45	6.8083	1.1232	6.7799						
H1	46	6.1545	1.1096	6.0068						

JDC

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: 11/16/2012 (A)

ANALYST: CDE / RR 20:04

Instrumentation

Drying Ovens: 12

Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time		
record times as mm/dd/yy hh:mm		
11/16/2012 20:04	date/time in oven	CDE
11/17/2012 13:17	date/time out	RR
elapsed hrs =	17.2	

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	11/16/12 18:17	11/16/12 17:44	11/17/12 13:33									
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	1.0809	1.0808			0.00							
VR36 I 1		6.7221	1.0674	6.6112			5.54	98.0%						
VR36 I 1 dup		6.6422	1.0722	6.5369			5.46	98.1%						
VR36 I 1 trp		6.4771	1.0671	6.3779			5.31	98.2%						
VR36 J1		6.7882	1.0709	6.6720			5.60	98.0%						
VR36 K1		6.3624	1.1188	6.2038			5.09	97.0%						
VR36 L1		6.5203	1.0869	6.4506			5.36	98.7%						
VR37 A1		6.2069	1.0890	6.1521			5.06	98.9%						
VR37 B1		6.2949	1.1008	6.2538			5.15	99.2%						
VR37 C1		6.1920	1.0761	6.1660			5.09	99.5%						
VR37 D1		6.2689	1.0662	6.1485			5.08	97.7%						
VR37 E1		6.2883	1.1139	6.1154			5.00	96.7%						
VR37 F1		6.5645	1.0959	6.4941			5.40	98.7%						
VR37 G1		6.4357	1.1023	6.2398			5.14	96.3%						
VR37 H1		6.2616	1.1125	5.9148			4.80	93.3%						
VR37 I 1		6.2061	1.0858	6.1760			5.09	99.4%						
VR37 J1		6.1539	1.1297	5.9426			4.81	95.8%						
VR37 K1		6.1910	1.1142	5.6626			4.55	89.6%						
VR37 L1		6.1702	1.0989	5.9340			4.84	95.3%						
VR37 M1		6.0887	1.1150	5.8249			4.71	94.7%						
VR37 N1		6.3052	1.0876	6.0673			4.98	95.4%						
VR37 O1		6.4681	1.0927	6.2733			5.18	96.4%						

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

~~(3)~~ (A)

Analyst:	ll / CWC	Date:	11-16-12	Oven ID:	12	Balance ID:	1123230597
Time in Oven:	20:04	Time Out of Oven:	11/17/12 13:17	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:		11-16-12 19:17	11-16-12 17:44	11/17/12 13:33						
Cal Weight (10.0000):		10.0020 ll	10.0000	10.0008						
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	1.0809	1.0808						
VR36 I'	2	6.7221	1.0674	6.6112						
I' dp	3	6.6422	1.0722	6.5389						
I' tp	4	6.4771	1.0671	6.3779						
J'	5	6.7882	1.0709	6.6720						
K'	6	6.3624	1.1188	6.2038						
L'	7	6.5203	1.0869	6.4506						
VR37 A'	8	6.2069	1.0890	6.1521						
B'	9	6.2949	~~1.090~~ (2)	6.2538						
C'	10	6.1920	1.0761	6.1460						
D'	11	6.2689	1.0662	6.1485						
E'	12	6.2883	1.1139	6.1154						
F'	13	6.5645	1.0959	6.4941						
G'	14	6.4357	1.1023	6.2398						
H'	15	6.2616	1.1125	5.9148						
I'	16	6.2061	1.0858	6.1760						
J'	17	6.1539	1.1297	5.9426						
K'	18	6.1910	1.1142	5.6626						
L'	19	6.1702	1.0989	5.9340						
M'	20	6.0887	1.1150	5.8249						
N'	21	6.3052	1.0876	6.0673						
O'	22	6.4681	1.0927	6.2733						

(2) 1.1008 11-16-12 (ll)

W
11-27-12

TOC Solids Prep Log

DATE: 11/15/2012

ANALYST: KE / UW 18:38

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			13.0715		13.0718	0.3 mg	
VR35 A1		-	13.1570	19.1541	19.3428	103.15%	
VR35 A1 dup		-	13.0686	19.3260	19.4371	101.78%	RPD = 1.34%
VR35 A1 trip		-	13.1843	19.4398	19.6584	103.49%	RSD = 0.88%
VR35 B1		-	13.2006	18.5196	18.6480	102.41%	
VR35 C1		-	13.1114	18.9448	19.0892	102.48%	
VR35 D1		-	13.2180	18.3883	18.5414	102.96%	
VR35 E1		-	13.1611	18.9645	19.1422	103.06%	
VR35 F1		-	13.1968	18.2763	18.3756	101.95%	
VR35 G1		-	13.0888	18.3254	18.4549	102.47%	
VR35 H1		-	13.0571	18.4519	18.6881	104.38%	
VR35 I 1		-	13.1469	18.3779	18.5489	103.27%	
VR35 J 1		+-	13.1424	18.6518	19.2819	111.44%	
VR35 K1		-	13.1039	18.7463	18.9163	103.01%	
VR35 L1		-	13.1270	18.4569	18.8848	108.03%	
VR36 A1		-	13.0908	18.2376	18.3509	102.20%	
VR36 B1		-	13.1169	18.2494	18.4413	103.74%	
VR36 C1		-	13.1253	18.6510	18.8063	102.81%	
VR36 D1		-	13.0899	18.3174	18.4313	102.18%	
VR36 E1		-	13.1435	18.8282	19.5280	112.31%	
VR36 F1		-	13.2003	18.3986	18.6426	104.69%	
VR36 G1		-	13.2161	18.8116	19.0860	104.90%	
VR36 H1		-	13.1748	18.7001	18.8466	102.65%	

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 (W) /uw* 18:38 Date 11-15-12

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.0715	Ø	13.0718		
VR35 A1		-	13.1570	19.1541	19.3428		
A1		-	13.0686	19.2360	19.4371		
A1		-	13.1843	19.4398	19.6584		
B1		-	13.2086	18.5196	18.6480		
C1		-	13.1114	18.9448	19.0892		
D1		-	13.2180	18.3883	18.5414		
E1		-	13.1611	18.9645	19.1422		
F1		-	13.1968	18.2763	18.3756		
G1		-	13.0888	18.3254	18.4549		
H1		-	13.0571	18.4519	18.6881		
I1		-	13.1469	18.3779	~~19.1002~~	18.5489	x
J1		+-	13.1424	18.6518	19.2819	x	
K1		-	13.1039	18.7463	18.9163		
L1		-	13.1270	18.4569	18.8848		
VR36 A1		-	13.0908	18.2376	18.3509		
B1		-	13.1169	18.2494	18.4413		
C1		-	13.1253	18.6510	18.8063		
D1		-	13.0899	18.3174	18.4313		
E1		-	13.1435	18.8282	19.5280	x	
F1		-	13.2003	18.3986	18.6426		
G1		-	13.2164	18.8116	19.0860		
H1		-	13.1748	18.7001	18.8466		

11-15-12
(W)

TOC, Solids Data Analysis

DATE: 11/27/2012

Instrument: Apollo 1 — ANALYST: KE 7:28

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
42.0	50.1	75.0	43.2			45.1	9.6%	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	947	947	*94.70%*
Blank				1.00		40.0	-25.22	-25	*Blank OK*
NIST 1941B				1.00		1.7	28120	28,120	*94.05%*
Silica Blanks 1				1.00		41.9	42.00	42	*Low Scale*
Silica Blanks 2				1.00		40.1	50.07	50	*Low Scale*
Silica Blanks 3				1.00		40.0	74.99	75	*Low Scale*
Silica Blanks 4				1.00		37.9	43.22	43	*Low Scale*
VR36 A1	24.3	236.6	89.73%	9.74		2.3	9938	96,369	*Range OK!*
VR36 B1	20.4	200.7	89.84%	9.84		2.8	7685	75,208	*Range OK!*
VR36 C1	21.8	206.0	89.42%	9.45		3.6	4352	40,743	*Range OK!*
VR36 D1				1.00		0.8	73869	73,869	*Range OK!*
VR36 E1				1.00		1.1	9055	9,055	*Range OK!*
CCV				1.00		40.0	904	904	*90.40%*
Blank				1.00		40.0	30.56	31	*Blank OK*
VR36 F1				1.00		2.2	6092	6,092	*Range OK!*
VR36 G1				1.00		3.2	2748	2,748	*Range OK!*
VR36 H1	15.5	153.6	89.91%	9.91		2.0	5887	57,936	*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
~~VR36 I 1 trip~~	~~11.2~~	~~108.5~~	~~89.68%~~	~~9.69~~		~~1.5~~	~~5533~~	~~53,209~~	~~Range OK!~~
VR36 I 1	11.2	108.5	89.68%	9.69		1.7	3908	37,467	Low Scale
VR36 I 1 dup	11.4	109.5	89.59%	9.61		1.7	4392	41,798	RPD=10.9%
VR36 I 1 trp	11.7	113.4	89.68%	9.69		1.6	5169	49,708	RSD=14.4%
VR36 I 1 ms	11.2	108.5	89.68%	9.69	10	1.7	21062	203,646	Range OK!
Spike =	*0.025*	*mg C to*	*0.2*	*mg samp=*	*142,463*	*ppm*		*117%*	
VR36 J 1	12.2	119.1	89.76%	9.76		2.1	10676	103,827	Range OK!
VR36 K1	11.0	104.9	89.51%	9.54		2.3	18038	171,632	Range OK!
CCV				1.00		40.0	950	950	95.00%
Blank				1.00		40.0	-24.85	-25	Blank OK
VR36 L1	11.2	107.2	89.55%	9.57		2.9	6554	62,345	Range OK!
VR37 A1				1.00		1.0	23264	23,264	Range OK!
VR37 B1				1.00		2.8	7675	7,675	Range OK!
VR37 C1				1.00		0.9	17947	17,947	Range OK!
VR37 D1	27.8	270.6	89.73%	9.73		2.0	7575	73,340	Range OK!
VR37 E1	15.6	150.5	89.63%	9.65		2.0	18254	175,714	Range OK!
VR37 F1				1.00		0.9	17585	17,585	Range OK!
VR37 G1	15.6	153.8	89.86%	9.86		1.8	8131	79,764	Range OK!
VR37 H1				1.00		0.9	36305	36,305	Range OK!
VR37 I 1				1.00		0.8	12374	12,374	Range OK!
CCV				1.00		40.0	974	974	97.40%
Blank				1.00		40.0	-18.01	-18	Blank OK
VR37 J 1	19.4	191.4	89.86%	9.87		1.7	6548	64,203	Range OK!
VR37 K1	13.5	133.1	89.86%	9.86		2.3	19970	196,490	Range OK!
VR37 L1	14.3	141.8	89.92%	9.92		2.3	9114	89,973	Range OK!
VR37 M1	19.7	186.8	89.45%	9.48		2.3	11212	105,932	Range OK!
VR37 N1	15.8	151.6	89.58%	9.59		1.9	8726	83,338	Range OK!
VR37 O1	24.1	235.3	89.76%	9.76		3.0	4123	39,860	Range OK!
VR82 A1				1.00		0.9	67885	67,885	Range OK!
VR82 B1				1.00		1.1	65630	65,630	Range OK!
VR82 C1				1.00		1.5	26143	26,143	Range OK!
VR82 D.1				1.00		0.8	53741	53,741	Range OK!
CCV				1.00		40.0	1049	1,049	104.90%
Blank				1.00		40.0	-20.87	-21	Blank OK
VR82 E1				1.00		0.9	46834	46,834	Range OK!
VR82 F1				1.00		1.1	45568	45,568	Range OK!
VR82 G1				1.00		0.9	67950	67,950	Range OK!
VR82 H1				1.00		0.8	31984	31,984	Range OK!
VR82 I 1				1.00		0.9	50718	50,718	Range OK!
VS18 A1	19.7	193.6	89.62%	9.83		2.4	6724	65,681	Range OK!
VS18 A1 dup	19.1	190.7	89.98%	9.98		2.7	6625	65,741	RPD=0.1%
VS18 A1 trp	19.3	190.8	89.88%	9.89		2.3	7262	71,391	RSD=4.9%
VS18 A1 ms	19.7	193.6	89.62%	9.83	10	2.6	16037	157,204	Range OK!
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*94,494*	*ppm*		*97%*	

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*
VS18 B1	14.3	129.1	88.92%	9.03		2.3	6428	57,670	*Range OK!*
CCV				1.00		40.0	1081	1,081	*108.10%*
Blank				1.00		40.0	-21.37	-21	*Blank OK*
VS18 C1	18.7	180.9	89.66%	9.67		2.8	6094	58,561	*Range OK!*
VS18 D1	12.6	123.1	89.76%	9.77		2.3	7343	71,344	*Range OK!*
VS18 E1	15.1	149.6	89.91%	9.91		2.5	7140	70,336	*Range OK!*
VS18 F1	18.2	180.8	89.93%	9.93		2.3	5104	50,301	*Range OK!*
VS19 G1	16.9	165.9	89.81%	9.82		2.5	4722	45,956	*Range OK!*
VS18 H1				1.00		0.9	34287	34,287	*Range OK!*
VS18 I 1				1.00		0.8	49897	49,897	*Range OK!*
VS18 J 1				1.00		1.0	11587	11,587	*Range OK!*
VS18 K1	20.2	195.7	89.68%	9.69		2.7	4066	39,000	*Range OK!*
VS18 L1	11.8	108.8	89.15%	9.22		3.0	3978	36,308	*Range OK!*
NIST 1941B				1.00		1.5	34988	34,988	*117.02%*
CCV				1.00		40.0	999	999	*99.90%*
Blank				1.00		40.0	-13.61	-14	*Blank OK*

(1) 11-27-12 (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:	11-27-12
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	7:28
SRM:	NBS – (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B14645145
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			
SB 1			41.9			
2			40.1			
3			40.0			
4			37.9			
VR36 A1	24.3	236.6	~~0~~2.3			
B1	20.4	200.7	2.8			
C1	21.8	206.0	3.6			
D1			0.8			
E1			1.1			
CCV			40			
CCB			40			
VR36 F1			2.2			
G1			3.2			
H1	15.5	153.6	2.0			
I1	~~0~~11.2	108.5	1.5			Trip Motor ig
I1	~~0~~11.2	108.5	1.7			
RI1	11.4	109.5	1.7			
RT1	11.7	119.4	1.6			
MS I1	11.2	108.5	1.7	2500	10	
J1	12.2	119.1	2.1			
K1	11.0	104.9	2.3			
CCV			40			
CCB			40			
VR36 L1	11.2	107.2	2.9			
VR37 A1			1.0			
B1			2.8			
C1			0.9			
D1	27.8	270.6	2.0			
E1	15.6	150.5	2.0			

① 11-27-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler		
Standards:	Source	Conc (ppm)	Analyst:	(W)	
Calibration:	ARI - CX0128-03	5000	Date:	11-27-12	
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:28	
SRM:	NBS (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B1469541145	
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VR37 F1			0.9			
G1	15.6	153.8	1.8			
H1			0.9			
I1			0.8			
CCV			40			
CCB			40			
VR37 J1	19.4	191.4	1.7			
K1	13.5	139.1	2.3			
L1	14.3	141.8	2.3			
M1	19.7	186.8	2.3			
N1	15.8	151.6	1.9			
O1	24.1	235.3	3.0			
VR82 A1			0.9			
B1			1.1			
C1			1.5			
D1			0.8			
CCV			40			
CCB			40			
VR82 E1			0.9			
F1			1.1			
G1			0.9			
H1			0.8			
I1			0.9			
VS18 A1	19.7	193.6	2.4			
DPA1	19.1	190.7	2.7			
DPA1	19.3	190.8	2.3			
MSA1	19.7	193.6	2.6	2500	10	
B1	14.3	129.1	2.3			
CCV	1		40			
CCB			40			
VS18 C1	18.7	180.9	① ~~2.2~~	2.8		
D1	12.6	123.1	① ~~3.0~~	2.3		

① 11-27-12 (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:	11-27-12
Verification:	ERA – 04091-12-01	5000 to 1000 for CVS	Time:	7:28
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	
VS18 E1	15.1	149.6	2.5			
F1	18.2	180.8	2.3			
G1	16.9	165.9	2.5			
H1			0.9			
I1			0.8			
J1			1.0			
K1	20.2	195.7	2.7			
L1	11.8	108.8	3.0			
NBS 1941 B			1.5			
CCV			40			
CCB			40			

11-27-12 (W)

11-28-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/27 17:50:46

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270727
Timestamp: 2012/11/27 07:30
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	946.6590	37.8664	5233503	8.115	9.115	146

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270735
Timestamp: 2012/11/27 07:40
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.2207	-1.0088	28226	7.996	8.065	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270748
Timestamp: 2012/11/27 07:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28119.7227	47.8035	6564062	7.933	8.933	210

Sample ID: Silica Blank 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270814
Timestamp: 2012/11/27 08:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42.0022	1.7599	235644	7.931	8.928	60

Sample ID: Silica Blank 2
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270822
Timestamp: 2012/11/27 08:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0711	2.0079	268846	7.918	8.916	62

Sample ID: Silica Blank 3
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270831
Timestamp: 2012/11/27 08:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	74.9865	2.9995	401619	8.027	9.023	65

Sample ID: Silica Blank 4
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270840
Timestamp: 2012/11/27 08:42
Sample Type: Sample

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

1	43.2200	1.6380	219329	7.980	8.976	60

Sample ID: VR36 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11270854
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 08:58
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9938.1826	22.8578	3060597	8.077	9.074	131

Sample ID: VR36 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11270903
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:06
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7684.9502	21.5179	2881180	8.144	9.144	116

Sample ID: VR36 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11270914
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:17
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4351.8306	15.6666	2097712	8.414	9.411	109

Sample ID: VR36 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11270919
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:23
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	73868.9297	59.0951	7912671	8.347	9.346	170

Sample ID: VR36 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11270925
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:28
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9054.8008	9.9603	1333653	8.435	9.433	112

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11270932
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:35
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	903.9148	36.1566	5004570	8.564	9.563	134

Sample ID: ICB/CCB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11270940
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:43
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30.5576	1.2223	326968	8.397	9.391	92

Sample ID: VR36 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270948
Timestamp: 2012/11/27 09:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6092.3496	13.4032	1794646	8.341	9.339	131

Sample ID: VR36 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270956
Timestamp: 2012/11/27 09:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2748.3540	8.7947	1177590	8.267	9.265	127

Sample ID: VR36 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271003
Timestamp: 2012/11/27 10:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5887.0493	11.7741	1576518	8.300	9.295	96

Sample ID: VR36 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

11-27-12 was Trip Not Original Value (R)

Mode: TOC
Filename: 11271007
Timestamp: 2012/11/27 10:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5533.1221	8.2997	1111304	8.368	9.363	91

Sample ID: VR36 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271014
Timestamp: 2012/11/27 10:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3907.7053	6.6431	889492	8.343	9.339	82

Sample ID: VR36 I 1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271021
Timestamp: 2012/11/27 10:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4392.1021	7.4666	999753	8.354	9.343	90

Sample ID: VR36 I 1 FP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271026
Timestamp: 2012/11/27 10:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5169.2007	8.2707	1107426	8.401	9.400	92

Sample ID: VR36 I 1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271034
Timestamp: 2012/11/27 10:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21062.4961	35.8062	4794354	8.622	9.622	133

Sample ID: VR36 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271051
Timestamp: 2012/11/27 10:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10675.9062	22.4194	3001894	8.428	9.426	125

Sample ID: VR36 J2
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271058
Timestamp: 2012/11/27 11:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18038.0547	41.4875	5555062	8.519	9.517	138

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271120
Timestamp: 2012/11/27 11:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	950.4704	38.0188	5253917	8.516	9.515	133

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271126
Timestamp: 2012/11/27 11:31
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-24.8518	-0.9941	30202	8.271	8.197	120

Last Message: Low Sample Detected

Sample ID: VR36 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271136
Timestamp: 2012/11/27 11:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6554.2153	19.0072	2545013	8.196	9.196	121

Sample ID: VR37 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271141
Timestamp: 2012/11/27 11:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23264.4316	23.2644	3115041	8.136	9.134	131

Sample ID: VR37 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271149
Timestamp: 2012/11/27 11:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7675.5200	21.4915	2877645	7.958	8.953	144

Sample ID: VR37 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271157
Timestamp: 2012/11/27 12:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17946.6367	16.1520	2162703	7.868	8.863	135

Sample ID: VR37 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271205
Timestamp: 2012/11/27 12:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7574.7007	15.1494	2028462	7.881	8.878	108

Sample ID: VR37 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271214
Timestamp: 2012/11/27 12:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18254.4180	36.5088	4888429	7.944	8.942	134

Sample ID: VR37 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271221
Timestamp: 2012/11/27 12:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17585.3711	15.8268	2119168	8.006	9.003	116

Sample ID: VR37 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271228
Timestamp: 2012/11/27 12:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8131.3179	14.6364	1959769	8.048	9.044	105

Sample ID: VR37 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271234
Timestamp: 2012/11/27 12:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36305.0430	32.6745	4375028	7.937	8.936	141

Sample ID: VR37 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271248
Timestamp: 2012/11/27 12:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12373.9385	9.8992	1325468	8.022	9.021	120

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271256
Timestamp: 2012/11/27 13:00
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	974.3135	38.9725	5381618	8.018	9.017	162

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271302
Timestamp: 2012/11/27 13:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-18.0115	-0.7205	66838	7.917	7.990	120

Last Message: Low Sample Detected

Sample ID: VR37 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271312
Timestamp: 2012/11/27 13:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6547.6982	11.1311	1490421	7.829	8.827	102

Sample ID: VR37 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271317
Timestamp: 2012/11/27 13:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19969.6934	45.9303	6149936	7.755	8.753	149

Sample ID: VR37 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271324
Timestamp: 2012/11/27 13:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9113.7285	20.9616	2806695	7.737	8.736	119

Sample ID: VR37 M1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271330
Timestamp: 2012/11/27 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11211.5146	25.7865	3452737	7.648	8.642	123

Sample ID: VR37 N1 | Mode: TOC
Method: Boat Sampler | Filename: 11271337
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 13:41
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8726.1182	16.5796	2219965	7.559	8.557	114

Sample ID: VR37 O1 | Mode: TOC
Method: Boat Sampler | Filename: 11271348
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 13:50
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4122.7285	12.3682	1656065	7.716	8.713	105

Sample ID: VR82 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11271353
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 13:57
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67885.3984	61.0969	8180696	7.656	8.652	157

Sample ID: VR82 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11271401
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:05
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	65630.3828	72.1934	9666494	7.764	8.762	159

Sample ID: VR82 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11271431
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:35
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26142.6777	39.2140	5250645	7.691	8.687	146

Sample ID: VR82 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11271439
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:43
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53740.7266	42.9926	5756584	7.530	8.528	139

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11271448
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:53
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1049.3702	41.9748	5783612	7.496	8.495	154

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271456
Timestamp: 2012/11/27 14:58
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-20.8714	-0.8349	51521	7.588	8.588	42

Sample ID: VR82 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271501
Timestamp: 2012/11/27 15:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46834.2930	42.1509	5643881	7.515	8.512	154

Sample ID: VR82 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271507
Timestamp: 2012/11/27 15:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	45568.0430	50.1248	6711575	7.576	8.575	152

Sample ID: VR82 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271514
Timestamp: 2012/11/27 15:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67949.8438	61.1549	8188461	7.368	8.367	158

Sample ID: VR82 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271521
Timestamp: 2012/11/27 15:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31983.8047	25.5870	3426032	7.480	8.478	121

Sample ID: VR82 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271528
Timestamp: 2012/11/27 15:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50718.0430	45.6462	6111902	7.290	8.289	145

Sample ID: VS18 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271533
Timestamp: 2012/11/27 15:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6723.7822	16.1371	2160709	7.232	8.231	111

Sample ID: VS18 A1 DUP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271541
Timestamp: 2012/11/27 15:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6625.1787	17.8880	2395150	7.255	8.247	116

Sample ID: VS18 A1 DUP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271547
Timestamp: 2012/11/27 15:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7262.0435	16.7027	2236444	7.300	8.298	112

Sample ID: VS18 A1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271553
Timestamp: 2012/11/27 15:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16036.6309	41.6952	5582874	7.469	8.466	139

Sample ID: VS18 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271558
Timestamp: 2012/11/27 16:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6428.7129	14.7860	1979809	7.424	8.422	110

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271625
Timestamp: 2012/11/27 16:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1080.6938	43.2278	5951378	7.381	8.380	143

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271630
Timestamp: 2012/11/27 16:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.3679	-0.8547	48861	7.252	7.284	120

Last Message: Low Sample Detected

Sample ID: VS18 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271635
Timestamp: 2012/11/27 16:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6094.0137	17.0632	2284719	7.269	8.267	119

Sample ID: VS18 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271640
Timestamp: 2012/11/27 16:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7342.7754	16.8884	2261306	7.285	8.283	115

Sample ID: VS18 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271645
Timestamp: 2012/11/27 16:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7139.5649	17.8489	2389919	7.340	8.339	110

Sample ID: VS18 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271650
Timestamp: 2012/11/27 16:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5104.0669	11.7394	1571866	7.377	8.374	99

Sample ID: VS18 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271655
Timestamp: 2012/11/27 16:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4722.4731	11.8062	1580814	7.342	8.342	98

Sample ID: VS18 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271700
Timestamp: 2012/11/27 17:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34286.5820	30.8579	4131788	7.229	8.227	139

Sample ID: VS18 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271709
Timestamp: 2012/11/27 17:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49896.7617	39.9174	5344828	7.226	8.224	158

Sample ID: VS18 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271714
Timestamp: 2012/11/27 17:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11587.3613	11.5874	1551515	7.320	8.315	113

Sample ID: VS18 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271720
Timestamp: 2012/11/27 17:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4065.6396	10.9772	1469819	7.332	8.330	103

Sample ID: VS18 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271726
Timestamp: 2012/11/27 17:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3977.6409	11.9329	1597784	7.356	8.353	111

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271731
Timestamp: 2012/11/27 17:36
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34988.3242	52.4825	7190561	7.455	8.454	205

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271737
Timestamp: 2012/11/27 17:41
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	999.0364	39.9615	5514030	7.369	8.369	149

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271744
Timestamp: 2012/11/27 17:47
Sample Type: Cal. Verification

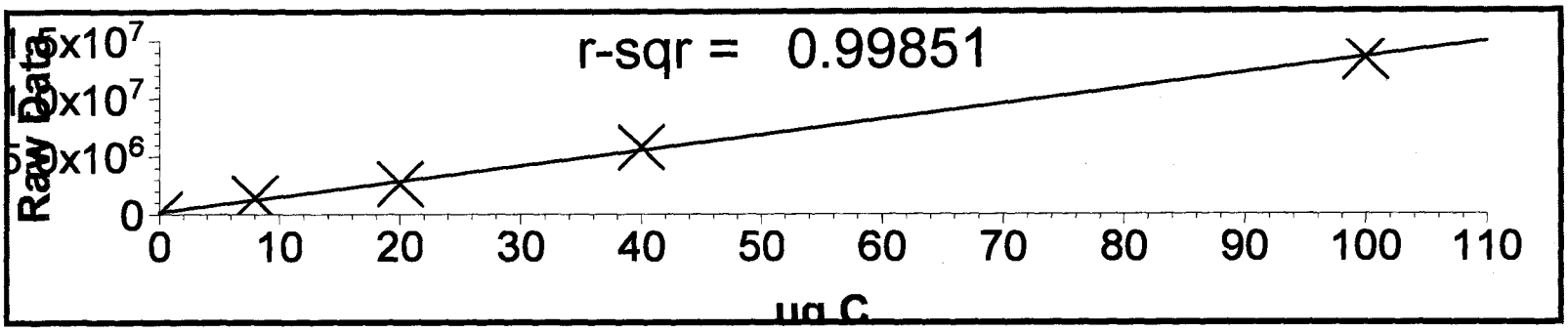
Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-13.6122	-0.5445	90400	7.535	8.533	54

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
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

W

11-19-12

Soil - pH

meter: Orion Model 115

Date: 11/16/2012

Analyst: KE 11:10

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)* 20.3

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	6.96			OK@ 99.4%
VR34 K1	20	20	20.1	5.46			
VR34 K1	20	20	20.2	5.53			
VR35 A1	20	20	20.2	5.11			
VR35 A1 du	20	20	20.2	5.09			pH RPD =0.39%
VR35 B1	20	20	20.2	5.10			
VR35 C1	20	20	20.3	6.07			
VR35 D1	20	20	20.2	5.98			
VR35 E1	20	20	20.1	6.02			
VR35 F1	20	20	20.3	5.18			
VR35 G1	20	20	20.2	5.30			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VR35 H1	20	20	20.8	6.17			
VR35 I 1	20	20	20.2	5.78			
VR35 J 1	20	20	20.3	5.65			
VR35 K1	20	20	20.2	6.15			
VR35 L1	20	20	20.2	5.48			
VR36 A1	20	20	20.2	5.23			
VR36 B1	20	20	20.2	5.12			
VR36 C1	20	20	20.2	5.89			
VR36 D1	20	20	20.2	5.64			
VR36 E1	20	20	20.2	5.69			
pH 7 Buffer			20.8	7.04			OK@ 100.6%
VR36 F1	20	20	20.2	5.82			
VR36 G1	20	20	20.3	5.69			
VR36 H1	20	20	20.2	5.43			
VR36 I 1	20	20	20.2	5.66			
VR36 J 1	20	20	20.2	5.32			
VR36 K1	20	20	20.1	4.89			
VR36 L1	20	20	20.2	5.50			
VR37 A1	20	20	20.1	5.66			
VR37 A1 du	20	20	20.1	5.68			pH RPD =0.35%
VR37 B1	20	20	20.1	5.65			
pH 7 Buffer			20.7	7.03			OK@ 100.4%
VR37 C1	20	20	20.2	5.70			
VR37 D1	20	20	20.2	5.62			
VR37 E1	20	20	20.0	5.43			
VR37 F1	20	20	20.0	5.66			
VR37 G1	20	20	20.0	5.56			
VR37 H1	20	20	20.1	5.76			
VR37 I 1	20	20	20.0	5.59			
VR37 J 1	20	20	21.5	6.02			
VR37 K1	20	20	20.2	5.97			
VR37 L1	20	20	20.2	6.41			
pH 7 Buffer			20.6	7.03			OK@ 100.4%
VR37 M1	20	20	20.1	5.74			
VR37 N1	20	20	20.1	6.12			
VR37 O1	20	20	20.2	6.08			
pH 7 Buffer			20.7	7.04			OK@ 100.6%

① 11-2/6-12 (2)

Soil Conductivity - pH

Date: 11-16-12

meter: Orion Model 115

Analyst: (2) 11:10

Conductivity Calibration

Potassium Chloride standard ARI ID = N / A

pH Calibration *Temperature (°C)* 20.3

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	6.96			
VR34 K1	20	20	20.1	5.46			
↓ L1	↓	↓	20.2	5.53			
VR35 A1			20.2	5.11			
A1			20.2	5.09			
B1			20.2	5.10			
C1			20.3	~~5.98~~ 6.07			
D1			20.2	~~6.09~~ 5.98			
E1			20.1	6.02			
E1			20.3	5.18			
G1	↓	↓	20.2	5.30			
pH 7 Buffer			20.4	6.99			
VR35 H1	20	20	20.8	6.17			
I1	↓	↓	20.2	5.78			
J1	10	20	20.3	5.65			
K1	20	20	20.2	~~5.66~~ 6.15			
↓ L1	↓	↓	20.2	~~6.15~~ 5.48			
VR36 A1			20.2	~~5.48~~ 5.23			
B1			20.2	5.12			
C1			20.2	5.89			
D1			20.2	5.64			
↓ E1	↓	↓	20.2	5.69			
pH 7 Buffer			20.8	7.04			
VR36 F1	20	20	20.2	5.82			
G1			20.3	5.69			
H1			20.2	5.43			
I1			20.2	5.66			
J1			20.2	5.32			
K1			20.1	4.89			
↓ L1			20.2	5.50			
VR37 A1			20.1	5.66			
↓ MA1	↓	↓	20.1	5.68			
↓ B			20.1	5.65			
pH 7 Buffer			20.7	7.03			
VR37 C1	20	20	20.2	5.70			
D1	20	20	20.2	5.62			
E1	10	20	20.0	5.43			
F1	20	20	20.0	5.66			
G1	10	20	20.0	5.56			
H1	10	20	20.1	5.76			
I1	20	20	20.0	5.59			
J1	20	20	21.5	6.02			
K1	10	40	20.2	5.97			
↓ L1	10	20	20.2	~~7.00~~ 6.91			
pH 7 Buffer			20.6	7.03			

Soil Conductivity - pH Page 2 of 2

meter: Orion Model 115

Date: 11-16-12

Analyst: (W) 11:10

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)* 20.1

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~~			~~11-16-12~~				
VR37 m1	10	20	20.1	5.74			
↓ N1	10	20	20.1	6.12			
↓ O	20	20	20.2	6.08			
~~PH 7 Buffer~~			20.7	7.04			
pH 7 Buffer							
pH 7 Buffer							
pH 7 Buffer							
pH 7 Buffer							

11-16-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

(1) 11-16-12 (W)

Calibration

Date:	11-15-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca	1505264	2.00	20.3
Analyst:	(W)		4.00	Fisher	108305	4.00	20.1
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.3
			12.00	Ricca	1206157	12.00	20.2
			Verification	Fisher	120143	7.03	20.1

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	14:52	ICV	6.96	6.96	Soil pH		20.3
		VR34 ~~VR39~~ K'	5.45	5.46			20.1
		↓ L'	5.55	5.53			20.2
		VR35 A'	5.11	5.11			20.2
		~~A~~	5.09	5.09			20.2
		B'	5.10	5.10			20.2
		C' ~~B~~	(1) ~~5.10~~ 6.08	~~5.12~~ 6.07			20.3
		D'	(1) ~~6.08~~ 5.97	~~6.07~~ 5.98			20.2
		E'	6.02	6.02			20.1
		~~F~~	5.18	5.18			20.3
		↓ ~~G~~	5.28	5.30			20.2
		CCV	6.99	6.99			20.4
		VR35 ~~X~~ (1)	6.17 H'	H' 6.17		20.8	~~20.8~~ (1)
		H'	~~5.78~~	~~5.78~~	11-16-12		~~20.2~~
		I'	~~5.68~~ (2)	(1) ~~5.69~~ 5.78			(1) ~~20.2~~
		J'	5.66	(1) ~~5.66~~ 5.65			~~20.3~~
		K'	6.12	6.15			20.2
		↓ L'	5.50	5.48			20.2
		VR36 A'	5.23	5.23			20.2
		B'	5.12	5.12			20.2
		C'	5.89	5.89			20.2
		D'	5.64	5.64			20.2
↓	↓	~~CCV~~ E'	5.68	5.69			20.2

(2) 6.65 11-16-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	W		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Cont

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
W	14:52	ICV	7.04	7.04	pH	5.01	20.8
		VR36F1	5.82	5.82			20.2
		G1	5.68	5.69			20.3
		H1	5.43	5.43			20.2
		I1	5.66	5.66			20.2
		J1	5.32	5.32			20.2
		K1	4.89	4.89			20.1
		L1	5.50	5.50			20.2
		VR37 A1	5.65	5.66			20.1
		A1	5.68	5.68			20.1
		B1	5.64	5.65			20.1
		CCV	7.04	7.03			20.7
		VR37 C1	5.70	5.70			20.2
		D1	5.61	5.62			20.2
		E1	5.43	5.43			20.0
		F1	5.64	5.66			20.0
		G1	5.56	5.56			20.0
		H1	5.75	5.76			20.1
		I1	5.61	5.59			20.0
		J1	6.01	6.02			21.5
		K1	5.97	5.97			20.2
		L1	6.41	6.41			20.2
		CCV	7.04	7.03			20.6

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-16-12		Buffer	Source	Lot #	pH	Temp.
Time:	13:50		2.00	Ricca			
Analyst:	(W)		4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher	Cont		
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		ICV					
(W)	14:52	VR37M1	5.74	5.74	pH 4		20.1
↓	↓	N1	6.11	6.12	↓		20.1
		D1	6.08	6.08			20.2
		CCV	7.04	7.04			20.7
		CCV					
		CCV					

W
11-29-12

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:	11/16/12 (A)
ANALYST:	CDE / UW /KE 20:04

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			13.1312		13.1314	0.2 mg	
VR36 I 1		-	13.1925	18.3643	18.3963	100.62%	
VR36 I 1 dup		-	13.1565	18.2236	18.2515	100.55%	RPD = 0.07%
VR36 I 1 trip		-	16.1346	18.1660	18.1951	101.43%	RSD = 0.49%
VR36 J 1		-	13.1719	18.0337	18.0727	100.80%	
VR36 K1		-	13.0968	17.1540	17.1467	99.82%	
VR36 L1		-	13.1515	18.2645	18.3410	101.50%	
VR37 A1		-	13.1086	17.9038	18.0095	102.20%	
VR37 B1		-	13.1581	17.8206	17.9381	102.52%	
VR37 C1		-	13.0482	17.6636	17.7810	102.54%	
VR37 D1		-	13.1900	18.0581	18.0669	100.18%	
VR37 E1		-	13.2000	16.8604	16.8799	100.53%	
VR37 F1		-	13.0763	16.8695	16.9446	101.98%	
VR37 G1		-	13.0763	16.7486	16.7562	100.21%	
VR37 H1		-	13.1224	17.2427	17.1315	97.30%	
VR37 I 1		-	13.1541	18.5296	18.6268	101.81%	
VR37 J 1		-	13.1564	17.3593	17.3306	99.32%	
VR37 K1		-	13.1227	15.2743	15.2089	96.96%	
VR37 L1		-	13.1526	16.8539	16.8258	99.24%	
VR37 M1		-	13.1685	16.4999	16.4681	99.05%	
VR37 N1		-	13.1506	16.4059	16.4016	99.87%	
VR37 O1		-	13.1559	17.8687	17.8577	99.77%	

(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 CM /GW Date 11-16-12 20:04

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1312	Ø	13.1314		
VR36 I1		–	13.1925	18.3643	18.1963		dry sed.
I1dup		–	13.1565	18.2236	18.2515		
I1TP		–	13.1346	18.1660	18.1957		
J1		–	13.1719	18.0337	18.0727		
K1		–	13.0968	17.1540	17.1467		
L1		–	13.1515	18.2645	18.3410		
VR37 A1		–	13.1086	17.9038	18.0095		
B1		–	13.1581	17.8206	17.9381		
C1		–	13.0482	17.6636	17.7810		
D1		–	13.1800	18.0581	18.0669		
E1		–	13.2000	16.8604	16.8799		
F1		–	13.0763	16.8695	16.9446		
G1		–	13.0763	16.7486	16.7562		
H1		–	13.1224	17.2427	17.1315		
I1		–	13.1541	18.5296	18.6268		
J1		–	13.1564	17.3593	17.3306		
K1		–	13.1227	15.2743	15.2089		
L1		–	13.1526	16.8539	16.8258		
M1		–	13.1685	16.4999	16.4681		
N1		–	13.1506	16.4059	16.4016		
O1		–	13.1559	17.8687	17.8577		

11-16-12 CM

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: 11/16/2012 (A)
ANALYST: CDE / RR 20:04

Instrumentation

Drying Ovens: 12
Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time		
record times as mm/dd/yy hh:mm		
11/16/2012 20:04	date/time in oven	CDE
11/17/2012 13:17	date/time out	RR
elapsed hrs =	17.2	

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	11/16/12 18:17	11/16/12 17:44	11/17/12 13:33										
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	1.0809	1.0808			0.00							
VR36 I 1		6.7221	1.0674	6.6112			5.54	98.0%						
VR36 I 1 dup		6.6422	1.0722	6.5369			5.46	98.1%						
VR36 I 1 trp		6.4771	1.0671	6.3779			5.31	98.2%						
VR36 J1		6.7882	1.0709	6.6720			5.60	98.0%						
VR36 K1		6.3624	1.1188	6.2038			5.09	97.0%						
VR36 L1		6.5203	1.0869	6.4506			5.36	98.7%						
VR37 A1		6.2069	1.0890	6.1521			5.06	98.9%						
VR37 B1		6.2949	1.1008	6.2538			5.15	99.2%						
VR37 C1		6.1920	1.0761	6.1660			5.09	99.5%						
VR37 D1		6.2689	1.0662	6.1485			5.08	97.7%						
VR37 E1		6.2883	1.1139	6.1154			5.00	96.7%						
VR37 F1		6.5645	1.0959	6.4941			5.40	98.7%						
VR37 G1		6.4357	1.1023	6.2398			5.14	96.3%						
VR37 H1		6.2616	1.1125	5.9148			4.80	93.3%						
VR37 I 1		6.2061	1.0858	6.1760			5.09	99.4%						
VR37 J1		6.1539	1.1297	5.9426			4.81	95.8%						
VR37 K1		6.1910	1.1142	5.6626			4.55	89.6%						
VR37 L1		6.1702	1.0989	5.9340			4.84	95.3%						
VR37 M1		6.0887	1.1150	5.8249			4.71	94.7%						
VR37 N1		6.3052	1.0876	6.0673			4.98	95.4%						
VR37 O1		6.4681	1.0927	6.2733			5.18	96.4%						

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

~~B~~ (A)

Analyst: RL/CMC	Date: 11-16-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 20:04	Time Out of Oven: 11/17/12 13:17	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:	11-6-12 14:17	11-16-12 17:44	11/17/12 13:33						
Cal Weight (10.0000):	10.0000 (a)	10.0000	10.0008						

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	1.0809	1.0808						
VR36 I'	2	6.7221	1.0674	6.6112						
I' dp	3	6.6422	1.0722	6.5369						
J' dp	4	6.4771	1.0671	6.3779						
J'	5	6.7882	1.0709	6.6720						
K'	6	6.3624	1.1188	6.2038						
L'	7	6.5203	1.0869	6.4506						
VR37 A'	8	6.2069	1.0890	6.1521						
B'	9	6.2949	~~1.090~~ (2)	6.2538						
C'	10	6.1920	1.0761	6.1660						
D'	11	6.2689	1.0662	6.1485						
E'	12	6.2883	1.1139	6.1154						
F'	13	6.5645	1.0959	6.4941						
G'	14	6.4357	1.1023	6.2898						
H'	15	6.2616	1.1125	5.9148						
I'	16	6.2061	1.0858	6.1760						
J'	17	6.1539	1.1297	5.9426						
K'	18	6.1910	1.1142	5.6626						
L'	19	6.1702	1.0989	5.9340						
M'	20	6.0887	1.1150	5.8249						
N'	21	6.3052	1.0876	6.0673						
O'	22	6.4681	1.0927	6.2733						

(2) 1.1008 11-16-12 (B)

VR36 : 6/7/13

TOC, Solids Data Analysis

DATE: 11/27/2012

Instrument: Apollo 1 — ANALYST: KE 7:28

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
42.0	50.1	75.0	43.2			45.1	9.6%	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	947	947	94.70%
Blank				1.00		40.0	-25.22	-25	Blank OK
NIST 1941B				1.00		1.7	28120	28,120	94.05%
Silica Blanks 1				1.00		41.9	42.00	42	Low Scale
Silica Blanks 2				1.00		40.1	50.07	50	Low Scale
Silica Blanks 3				1.00		40.0	74.99	75	Low Scale
Silica Blanks 4				1.00		37.9	43.22	43	Low Scale
VR36 A1	24.3	236.6	89.73%	9.74		2.3	9938	96,369	Range OK!
VR36 B1	20.4	200.7	89.84%	9.84		2.8	7685	75,208	Range OK!
VR36 C1	21.8	206.0	89.42%	9.45		3.6	4352	40,743	Range OK!
VR36 D1				1.00		0.8	73869	73,869	Range OK!
VR36 E1				1.00		1.1	9055	9,055	Range OK!
CCV				1.00		40.0	904	904	90.40%
Blank				1.00		40.0	30.56	31	Blank OK
VR36 F1				1.00		2.2	6092	6,092	Range OK!
VR36 G1				1.00		3.2	2748	2,748	Range OK!
VR36 H1	15.5	153.6	89.91%	9.91		2.0	5887	57,936	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
~~VR36 I 1 trip~~	~~11.2~~	~~108.5~~	~~89.68%~~	~~9.69~~		~~1.5~~	~~5533~~	~~53,209~~	~~Range OK!~~
VR36 I 1	11.2	108.5	89.68%	9.69		1.7	3908	37,467	*Low Scale*
VR36 I 1 dup	11.4	109.5	89.59%	9.61		1.7	4392	41,798	*RPD=10.9%*
VR36 I 1 trp	11.7	113.4	89.68%	9.69		1.6	5169	49,708	*RSD=14.4%*
VR36 I 1 ms	11.2	108.5	89.68%	9.69	10	1.7	21062	203,646	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.2*	*mg samp=*	*142,463*	*ppm*		*117%*	
VR36 J 1	12.2	119.1	89.76%	9.76		2.1	10676	103,827	*Range OK!*
VR36 K1	11.0	104.9	89.51%	9.54		2.3	18038	171,632	*Range OK!*
CCV				1.00		40.0	950	950	*95.00%*
Blank				1.00		40.0	-24.85	-25	*Blank OK*
VR36 L1	11.2	107.2	89.55%	9.57		2.9	6554	62,345	*Range OK!*
VR37 A1				1.00		1.0	23264	23,264	*Range OK!*
VR37 B1				1.00		2.8	7675	7,675	*Range OK!*
VR37 C1				1.00		0.9	17947	17,947	*Range OK!*
VR37 D1	27.8	270.6	89.73%	9.73		2.0	7575	73,340	*Range OK!*
VR37 E1	15.6	150.5	89.63%	9.65		2.0	18254	175,714	*Range OK!*
VR37 F1				1.00		0.9	17585	17,585	*Range OK!*
VR37 G1	15.6	153.8	89.86%	9.86		1.8	8131	79,764	*Range OK!*
VR37 H1				1.00		0.9	36305	36,305	*Range OK!*
VR37 I 1				1.00		0.8	12374	12,374	*Range OK!*
CCV				1.00		40.0	974	974	*97.40%*
Blank				1.00		40.0	-18.01	-18	*Blank OK*
VR37 J 1	19.4	191.4	89.86%	9.87		1.7	6548	64,203	*Range OK!*
VR37 K1	13.5	133.1	89.86%	9.86		2.3	19970	196,490	*Range OK!*
VR37 L1	14.3	141.8	89.92%	9.92		2.3	9114	89,973	*Range OK!*
VR37 M1	19.7	186.8	89.45%	9.48		2.3	11212	105,932	*Range OK!*
VR37 N1	15.8	151.6	89.58%	9.59		1.9	8726	83,338	*Range OK!*
VR37 O1	24.1	235.3	89.76%	9.76		3.0	4123	39,860	*Range OK!*
VR82 A1				1.00		0.9	67885	67,885	*Range OK!*
VR82 B1				1.00		1.1	65630	65,630	*Range OK!*
VR82 C1				1.00		1.5	26143	26,143	*Range OK!*
VR82 D.1				1.00		0.8	53741	53,741	*Range OK!*
CCV				1.00		40.0	1049	1,049	*104.90%*
Blank				1.00		40.0	-20.87	-21	*Blank OK*
VR82 E1				1.00		0.9	46834	46,834	*Range OK!*
VR82 F1				1.00		1.1	45568	45,568	*Range OK!*
VR82 G1				1.00		0.9	67950	67,950	*Range OK!*
VR82 H1				1.00		0.8	31984	31,984	*Range OK!*
VR82 I 1				1.00		0.9	50718	50,718	*Range OK!*
VS18 A1	19.7	193.6	89.82%	9.83		2.4	6724	65,681	*Range OK!*
VS18 A1 dup	19.1	190.7	89.98%	9.98		2.7	6625	65,741	*RPD=0.1%*
VS18 A1 trp	19.3	190.8	89.88%	9.89		2.3	7262	71,391	*RSD=4.9%*
VS18 A1 ms	19.7	193.6	89.82%	9.83	10	2.6	16037	157,204	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*94,494*	*ppm*		*97%*	

VR36 : 00750

Sample Data

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

Sample ID	Dilution Data				Spike (µL Std)	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
VS18 B1	14.3	129.1	88.92%	9.03		2.3	6428	57,670	*Range OK!*
CCV				1.00		40.0	1081	1,081	*108.10%*
Blank				1.00		40.0	-21.37	-21	*Blank OK*
VS18 C1	18.7	180.9	89.66%	9.67		2.8	6094	58,561	*Range OK!*
VS18 D1	12.6	123.1	89.76%	9.77		2.3	7343	71,344	*Range OK!*
VS18 E1	15.1	149.6	89.91%	9.91		2.5	7140	70,336	*Range OK!*
VS18 F1	18.2	180.8	89.93%	9.93		2.3	5104	50,301	*Range OK!*
VS19 G1	16.9	165.9	89.81%	9.82		2.5	4722	45,956	*Range OK!*
VS18 H1				1.00		0.9	34287	34,287	*Range OK!*
VS18 I 1				1.00		0.8	49897	49,897	*Range OK!*
VS18 J 1				1.00		1.0	11587	11,587	*Range OK!*
VS18 K1	20.2	195.7	89.68%	9.69		2.7	4066	39,000	*Range OK!*
VS18 L1	11.8	108.8	89.15%	9.22		3.0	3978	36,308	*Range OK!*
NIST 1941B				1.00		1.5	34988	34,988	*117.02%*
CCV				1.00		40.0	999	999	*99.90%*
Blank				1.00		40.0	-13.61	-14	*Blank OK*

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(1) 11-27-12 (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:	11-27-12
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:28
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			41.9			
2			40.1			
3			40.0			
4			37.9			
VR36 A'	24.3	236.6	~~20.3~~ 2.3			
B'	20.4	200.7	2.8			
C'	21.8	206.0	3.6			
D'			0.8			
E'			1.1			
CCV			40			
CCB			40			
VR36 F'			2.2			
G'			3.2			
H'	15.5	153.6	2.0			
I'	~~22~~ 11.2	108.5	1.5			Trip Motor rerun
I'	~~22~~ 11.2	108.5	1.7			
RI'	11.4	109.5	1.7			
TI'	11.7	119.4	1.6			
MS I'	11.2	108.5	1.7	2500	10	
J'	12.2	119.1	2.1			
K'	11.0	104.9	2.3			
CCV			40			
CCB			40			
VR36 L'	11.2	107.2	2.9			
VR37 A'			1.0			
B'			2.8			
C'			0.9			
D'	27.8	270.6	2.0			
E'	15.6	150.5	2.0			

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① 11-27-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler		
Standards:	Source		Conc (ppm)	Analyst:	(W)
Calibration:	ARI - CX0128-03		5000	Date:	11-27-12
Verification:	ERA - 0401-12-01		5000 to 1000 for CVS	Time:	7:28
SRM:	NBS (1941b) or 8704		Method: PSEP 1986-MOD	Balance ID	B14695 4145
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VR37 F1			0.9			
G1	15.6	153.8	1.8			
H1			0.9			
I1			0.8			
CCV			40			
CCB			40			
VR37 J1	19.4	191.4	1.7			
K1	13.5	139.1	2.3			
L1	14.3	141.8	2.3			
M1	19.7	186.8	2.3			
N1	15.8	157.6	1.9			
O1	24.1	235.3	3.0			
VR82 A1			0.9			
B1			1.1			
C1			1.5			
D1			0.8			
CCV			40			
CCB			40			
VR82 E1			0.9			
F1			1.1			
G1			0.9			
H1			0.8			
I1			0.9			
VS18 A1	19.7	193.6	2.4			
DPA1	19.1	190.7	2.7			
MPA1	19.3	190.8	2.3			
MSA1	19.7	193.6	2.6	2500	10	
B1	14.3	129.1	2.3			
CCV	1		40			
CCB			40			
VS18 C1	18.7	180.9	①~~2.2~~	2.8		
D1	12.6	123.1	①~~3.0~~	2.3		

① 11-27-12 (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:	11-27-12
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	1:28
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	
VS18 E1	15.1	149.6	2.5			
F1	18.2	180.8	2.3			
G1	16.9	165.9	2.5			
H1			0.9			
I1			0.8			
J1			1.0			
K1	20.2	195.7	2.7			
L1	11.8	108.8	3.0			
NBS 1941 B			1.5			
CCV			40			
CCB			40			

11-27-12 (W)

11-28-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/27 17:50:46

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270727
Timestamp: 2012/11/27 07:30
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	946.6590	37.8664	5233503	8.115	9.115	146

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270735
Timestamp: 2012/11/27 07:40
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.2207	-1.0088	28226	7.996	8.065	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270748
Timestamp: 2012/11/27 07:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28119.7227	47.8035	6564062	7.933	8.933	210

Sample ID: Silica Blank 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270814
Timestamp: 2012/11/27 08:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42.0022	1.7599	235644	7.931	8.928	60

Sample ID: Silica Blank 2
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270822
Timestamp: 2012/11/27 08:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0711	2.0079	268846	7.918	8.916	62

Sample ID: Silica Blank 3
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270831
Timestamp: 2012/11/27 08:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	74.9865	2.9995	401619	8.027	9.023	65

Sample ID: Silica Blank 4
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270840
Timestamp: 2012/11/27 08:42
Sample Type: Sample

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

1	43.2200	1.6380	219329	7.980	8.976	60

Sample ID: VR36 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270854
Timestamp: 2012/11/27 08:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9938.1826	22.8578	3060597	8.077	9.074	131

Sample ID: VR36 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270903
Timestamp: 2012/11/27 09:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7684.9502	21.5179	2881180	8.144	9.144	116

Sample ID: VR36 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270914
Timestamp: 2012/11/27 09:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4351.8306	15.6666	2097712	8.414	9.411	109

Sample ID: VR36 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270919
Timestamp: 2012/11/27 09:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	73868.9297	59.0951	7912671	8.347	9.346	170

Sample ID: VR36 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270925
Timestamp: 2012/11/27 09:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9054.8008	9.9603	1333653	8.435	9.433	112

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270932
Timestamp: 2012/11/27 09:35
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	903.9148	36.1566	5004570	8.564	9.563	134

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270940
Timestamp: 2012/11/27 09:43
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30.5576	1.2223	326968	8.397	9.391	92

Sample ID: VR36 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270948
Timestamp: 2012/11/27 09:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6092.3496	13.4032	1794646	8.341	9.339	131

Sample ID: VR36 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270956
Timestamp: 2012/11/27 09:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2748.3540	8.7947	1177590	8.267	9.265	127

Sample ID: VR36 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271003
Timestamp: 2012/11/27 10:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5887.0493	11.7741	1576518	8.300	9.295	96

Sample ID: VR36 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

was Trip Not original Rerun 11-27-12 (W)

Mode: TOC
Filename: 11271007
Timestamp: 2012/11/27 10:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5533.1221	8.2997	1111304	8.368	9.363	91

Sample ID: VR36 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271014
Timestamp: 2012/11/27 10:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3907.7053	6.6431	889492	8.343	9.339	82

Sample ID: VR36 I 1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271021
Timestamp: 2012/11/27 10:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4392.1021	7.4666	999753	8.354	9.343	90

Sample ID: VR36 I 1 TP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271026
Timestamp: 2012/11/27 10:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5169.2007	8.2707	1107426	8.401	9.400	92

Sample ID: VR36 I 1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271034
Timestamp: 2012/11/27 10:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21062.4961	35.8062	4794354	8.622	9.622	133

Sample ID: VR36 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271051
Timestamp: 2012/11/27 10:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10675.9062	22.4194	3001894	8.428	9.426	125

Sample ID: VR36 J2
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271058
Timestamp: 2012/11/27 11:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18038.0547	41.4875	5555062	8.519	9.517	138

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271120
Timestamp: 2012/11/27 11:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	950.4704	38.0188	5253917	8.516	9.515	133

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271126
Timestamp: 2012/11/27 11:31
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-24.8518	-0.9941	30202	8.271	8.197	120

Last Message: Low Sample Detected

Sample ID: VR36 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271136
Timestamp: 2012/11/27 11:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6554.2153	19.0072	2545013	8.196	9.196	121

Sample ID: VR37 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271141
Timestamp: 2012/11/27 11:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23264.4316	23.2644	3115041	8.136	9.134	131

Sample ID: VR37 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271149
Timestamp: 2012/11/27 11:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7675.5200	21.4915	2877645	7.958	8.953	144

Sample ID: VR37 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271157
Timestamp: 2012/11/27 12:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17946.6367	16.1520	2162703	7.868	8.863	135

Sample ID: VR37 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271205
Timestamp: 2012/11/27 12:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7574.7007	15.1494	2028462	7.881	8.878	108

Sample ID: VR37 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271214
Timestamp: 2012/11/27 12:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18254.4180	36.5088	4888429	7.944	8.942	134

Sample ID: VR37 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271221
Timestamp: 2012/11/27 12:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17585.3711	15.8268	2119168	8.006	9.003	116

Sample ID: VR37 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271228
Timestamp: 2012/11/27 12:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8131.3179	14.6364	1959769	8.048	9.044	105

Sample ID: VR37 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271234
Timestamp: 2012/11/27 12:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36305.0430	32.6745	4375028	7.937	8.936	141

Sample ID: VR37 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271248
Timestamp: 2012/11/27 12:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12373.9385	9.8992	1325468	8.022	9.021	120

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271256
Timestamp: 2012/11/27 13:00
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	974.3135	38.9725	5381618	8.018	9.017	162

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271302
Timestamp: 2012/11/27 13:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-18.0115	-0.7205	66838	7.917	7.990	120

Last Message: Low Sample Detected

Sample ID: VR37 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271312
Timestamp: 2012/11/27 13:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6547.6982	11.1311	1490421	7.829	8.827	102

Sample ID: VR37 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271317
Timestamp: 2012/11/27 13:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19969.6934	45.9303	6149936	7.755	8.753	149

Sample ID: VR37 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271324
Timestamp: 2012/11/27 13:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9113.7285	20.9616	2806695	7.737	8.736	119

Sample ID: VR37 M1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271330
Timestamp: 2012/11/27 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11211.5146	25.7865	3452737	7.648	8.642	123

Sample ID: VR37 N1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271337
Timestamp: 2012/11/27 13:41
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8726.1182	16.5796	2219965	7.559	8.557	114

Sample ID: VR37 O1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271348
Timestamp: 2012/11/27 13:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4122.7285	12.3682	1656065	7.716	8.713	105

Sample ID: VR82 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271353
Timestamp: 2012/11/27 13:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67885.3984	61.0969	8180696	7.656	8.652	157

Sample ID: VR82 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271401
Timestamp: 2012/11/27 14:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	65630.3828	72.1934	9666494	7.764	8.762	159

Sample ID: VR82 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271431
Timestamp: 2012/11/27 14:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26142.6777	39.2140	5250645	7.691	8.687	146

Sample ID: VR82 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271439
Timestamp: 2012/11/27 14:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53740.7266	42.9926	5756584	7.530	8.528	139

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271448
Timestamp: 2012/11/27 14:53
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1049.3702	41.9748	5783612	7.496	8.495	154

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271456
Timestamp: 2012/11/27 14:58
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-20.8714	-0.8349	51521	7.588	8.588	42

Sample ID: VR82 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271501
Timestamp: 2012/11/27 15:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46834.2930	42.1509	5643881	7.515	8.512	154

Sample ID: VR82 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271507
Timestamp: 2012/11/27 15:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	45568.0430	50.1248	6711575	7.576	8.575	152

Sample ID: VR82 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271514
Timestamp: 2012/11/27 15:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67949.8438	61.1549	8188461	7.368	8.367	158

Sample ID: VR82 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271521
Timestamp: 2012/11/27 15:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31983.8047	25.5870	3426032	7.480	8.478	121

Sample ID: VR82 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271528
Timestamp: 2012/11/27 15:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50718.0430	45.6462	6111902	7.290	8.289	145

Sample ID: VS18 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271533
Timestamp: 2012/11/27 15:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6723.7822	16.1371	2160709	7.232	8.231	111

Sample ID: VS18 A1 DUP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271541
Timestamp: 2012/11/27 15:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6625.1787	17.8880	2395150	7.255	8.247	116

Sample ID: VS18 A1 DUP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271547
Timestamp: 2012/11/27 15:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7262.0435	16.7027	2236444	7.300	8.298	112

Sample ID: VS18 A1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271553
Timestamp: 2012/11/27 15:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16036.6309	41.6952	5582874	7.469	8.466	139

Sample ID: VS18 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271558
Timestamp: 2012/11/27 16:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6428.7129	14.7860	1979809	7.424	8.422	110

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271625
Timestamp: 2012/11/27 16:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1080.6938	43.2278	5951378	7.381	8.380	143

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271630
Timestamp: 2012/11/27 16:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.3679	-0.8547	48861	7.252	7.284	120

Last Message: Low Sample Detected

Sample ID: VS18 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271635
Timestamp: 2012/11/27 16:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6094.0137	17.0632	2284719	7.269	8.267	119

Sample ID: VS18 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271640
Timestamp: 2012/11/27 16:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7342.7754	16.8884	2261306	7.285	8.283	115

Sample ID: VS18 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271645
Timestamp: 2012/11/27 16:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7139.5649	17.8489	2389919	7.340	8.339	110

Sample ID: VS18 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271650
Timestamp: 2012/11/27 16:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5104.0669	11.7394	1571866	7.377	8.374	99

Sample ID: VS18 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271655
Timestamp: 2012/11/27 16:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4722.4731	11.8062	1580814	7.342	8.342	98

Sample ID: VS18 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271700
Timestamp: 2012/11/27 17:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34286.5820	30.8579	4131788	7.229	8.227	139

Sample ID: VS18 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271709
Timestamp: 2012/11/27 17:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49896.7617	39.9174	5344828	7.226	8.224	158

Sample ID: VS18 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271714
Timestamp: 2012/11/27 17:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11587.3613	11.5874	1551515	7.320	8.315	113

Sample ID: VS18 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271720
Timestamp: 2012/11/27 17:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4065.6396	10.9772	1469819	7.332	8.330	103

Sample ID: VS18 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271726
Timestamp: 2012/11/27 17:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3977.6409	11.9329	1597784	7.356	8.353	111

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271731
Timestamp: 2012/11/27 17:36
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34988.3242	52.4825	7190561	7.455	8.454	205

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271737
Timestamp: 2012/11/27 17:41
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	999.0364	39.9615	5514030	7.369	8.369	149

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271744
Timestamp: 2012/11/27 17:47
Sample Type: Cal. Verification

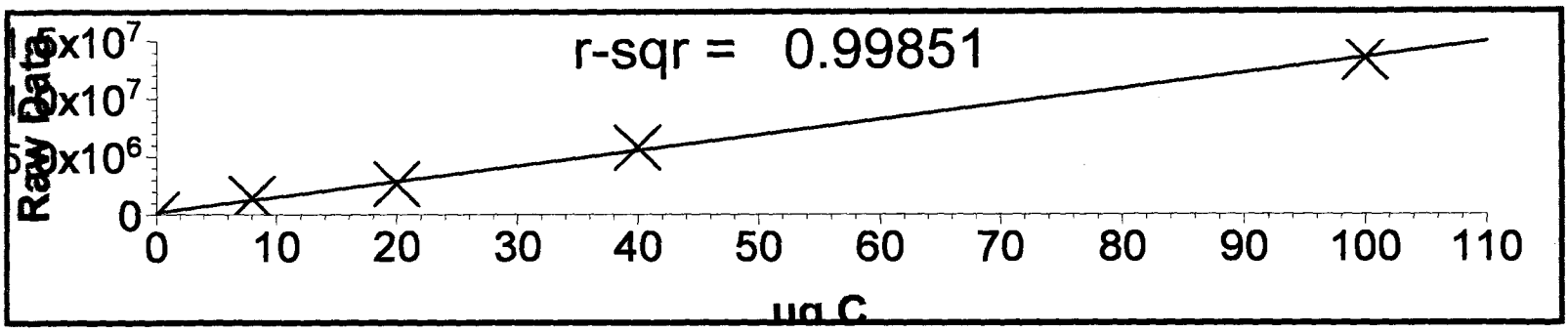
Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-13.6122	-0.5445	90400	7.535	8.533	54

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
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

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: VR36, VR37

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES - GeoTech

ARI Job No: VR36 Client Name: @ Hart Crowser

Parameter: #10 screening Client Project: Upper Columbia

☐ Job OK, no corrective action required

Set up date 11/9/12

Air Dry Start 11/9/12 16:35

Sieve date: 11/14/12

Analyst: gc Date Completed: 11/14/12

ANALYTICAL
RESOURCES
INCORPORATED

ANALYST NOTES - GeoTech

ARI Job No: VR37 Client Name: Hart Crowser, Inc.

Parameter: #10 screen Client Project: Upper Columbia

☐ Job OK, no corrective action required

Set up Date: 11/12/12

Air Dry Start: 11/12/12 14:30

#10 SCREEN DATE: 11.14.2012

Analyst: eg Date Completed: 11.15.2012

12000F

Version 01
07/09/03

VR36:00772

Table of Contents: ARI Job VS18

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

AV
Signature

November-28-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 29, 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. VS18

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 VS18

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: VS18

Sample Custody Record

Samples Shipped to: ARI

HART CROWSER

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 Condrad

SAMPLED BY: PRC, NWG, KSH, ASK

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: Metals *	TOC	pH (EPA 9045)	Total Solids (SM2540B)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA5-1C		11/9/12	0946	soil	X	X	X	X	1	
	SA5-2C			0921						1	
	SA5-5C			1103						1	
	SA5-5P-1 (0 to 3" depth)			1120						1	
	SA5-5P-2 (3 to 6" depth)			1125						1	
	SA5-5P-3 (6 to 12" depth)			1130						1	
	SA5-5P-4 (12 to 18" depth)			1135						1	
	SA5-8C			1456						1	
	SA7-7C			1358						1	
	SA7-8C			1125						1	
	SA9-1C		11/8/12	1014						1	
	SA9-2C		11/9/12	1337						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE Mitchell	11/12/12	SIGNATURE Chris Atwell	11/12/12
PRINT NAME MITCHELL CORDELL	TIME	PRINT NAME	TIME
COMPANY HC	1200	COMPANY ARI	1221
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* Metals - Ag, Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Mg, Mn, Ni, Pb, K, Na, Sb, Se, Ti, V, Zn (Method 6010B/6020)
Hg by EPA 7471A

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: VS18 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: 1121

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: 806

***** 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 Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VS18

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS18
November 29, 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 11/16/12 and analyzed between 11/17/12 and 11/23/12 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: Is in control.

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 SA5-1C. 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 RPD for antimony was not within control limits for the matrix duplicate associated with sample SA5-1C. 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 RPD. No corrective actions were taken.

Conventional Chemistry Parameters

The samples were analyzed between 11/16/12 and 11/27/12 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.

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS18
November 29, 2012

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

Matrix spike: Is in control.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VS18
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: [signature] Date: November 16, 2012
Technician

Reviewed by: [signature] Date: 11/16/12
Geotechnical Division Manager

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VS18
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.	SA5-1C	VS18A	12-22653	Soil	11/09/12 09:46	11/12/12 12:21
2.	SA5-2C	VS18B	12-22654	Soil	11/09/12 09:21	11/12/12 12:21
3.	SA5-5C	VS18C	12-22655	Soil	11/09/12 11:03	11/12/12 12:21
4.	SA5-5P-1(0 to 3"depth)	VS18D	12-22656	Soil	11/09/12 11:20	11/12/12 12:21
5.	SA5-5P-2(3 to 6"depth)	VS18E	12-22657	Soil	11/09/12 11:25	11/12/12 12:21
6.	SA5-5P-3(6 to 12"depth)	VS18F	12-22658	Soil	11/09/12 11:30	11/12/12 12:21
7.	SA5-5P-4(12 to 18" depth	VS18G	12-22659	Soil	11/09/12 11:35	11/12/12 12:21
8.	SA5-8C	VS18H	12-22660	Soil	11/09/12 14:56	11/12/12 12:21
9.	SA7-7C	VS18I	12-22661	Soil	11/09/12 13:58	11/12/12 12:21
10.	SA7-8C	VS18J	12-22662	Soil	11/09/12 11:25	11/12/12 12:21
11.	SA9-1C	VS18K	12-22663	Soil	11/08/12 10:14	11/12/12 12:21
12.	SA9-2C	VS18L	12-22664	Soil	11/09/12 13:37	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

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

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.

Analytical Resources,Incorporated
Analytical Chemists and Consultants

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

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: VS18

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA5-1C	VS18A	12-22653	
SA5-1CD	VS18ADUP	12-22653	
SA5-1CS	VS18ASPK	12-22653	
SA5-2C	VS18B	12-22654	
PBS	VS18MB1	12-22654	
LCSS	VS18MB1SPK	12-22654	
SA5-5C	VS18C	12-22655	
SA5-5P-1(0 to 3	VS18D	12-22656	
SA5-5P-2(3 to 6	VS18E	12-22657	
SA5-5P-3(6 to 12	VS18F	12-22658	
SA5-5P-4(12 to 18	VS18G	12-22659	
SA5-8C	VS18H	12-22660	
SA7-7C	VS18I	12-22661	
SA7-8C	VS18J	12-22662	
SA9-1C	VS18K	12-22663	
SA9-2C	VS18L	12-22664	

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: 11/29/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA5-1C
SAMPLE

Lab Sample ID: VS18A
LIMS ID: 12-22653
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Percent Total Solids: 83.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.8	10	**14,300**	
3050B	11/16/12	200.8	11/21/12	**7440-36-0**	**Antimony**	0.015	0.2	**0.5**	
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.098	0.2	**11.0**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.17	0.8	**197**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.020	0.2	**0.6**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.014	0.1	**5.6**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	5.2	10	**10,300**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.043	0.6	**16.5**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.036	0.2	**5.0**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.041	0.6	**35.2**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	2.1	10	**15,100**	
3050B	11/16/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.27	0.6	**337**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.8	10	**3,330**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.11	0.3	**851**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.090**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.055	0.6	**10.8**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	48	140	**1,120**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.11	0.6	0.6	U
3050B	11/16/12	200.8	11/23/12	**7440-22-4**	**Silver**	0.0090	0.2	**0.3**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.9	140	**230**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0034	0.2	**0.2**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.019	0.2	**20.5**	
3050B	11/16/12	200.8	11/23/12	**7440-66-6**	**Zinc**	1.9	20	**320**	

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: VS18MB
LIMS ID: 12-22654
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-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	11/16/12	6010C	11/23/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/16/12	6010C	11/23/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/16/12	200.8	11/21/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/16/12	6010C	11/23/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/16/12	200.8	11/21/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/16/12	6010C	11/23/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/16/12	200.8	11/21/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/16/12	6010C	11/23/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/16/12	6010C	11/23/12	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	11/16/12	7471A	11/17/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/16/12	200.8	11/21/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/16/12	6010C	11/23/12	7440-09-7	Potassium	17	50	50	U
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/16/12	6010C	11/23/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/16/12	200.8	11/21/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	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
Page 1 of 1

Sample ID: SA5-2C
SAMPLE

Lab Sample ID: VS18B
LIMS ID: 12-22654
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Percent Total Solids: 93.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.9	10	**31,600**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.086	0.2	**12.1**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**773**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.8**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.7**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**7,540**	
3050B	11/16/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.19	2	**182**	
3050B	11/16/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.16	1	**20**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.036	0.5	**22.8**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**41,500**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.046	0.1	**139**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**24,500**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**963**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.050**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.048	0.5	**44.9**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**10,400**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	7440-22-4	Silver	0.0079	0.2	0.2	U
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**210**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/16/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.084	1	**73**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.33	4	**233**	

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: SA5-5C
SAMPLE

Lab Sample ID: VS18C
LIMS ID: 12-22655
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.7	10	**14,500**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.084	0.2	**8.4**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**160**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.9**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**7,000**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.037	0.5	**21.1**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.031	0.2	**6.6**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.035	0.5	**22.4**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**16,400**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.046	0.1	**118**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.4	10	**4,840**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.098	0.2	**435**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.043**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.047	0.5	**16.6**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	43	120	**2,600**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.2**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**230**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.2**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.016	0.2	**26.5**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.33	4	**161**	

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: SA5-5P-1(0 to 3"depth)
SAMPLE

Lab Sample ID: VS18D
LIMS ID: 12-22656
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.9	10	**14,700**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.085	0.2	**11.0**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**159**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**5.1**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**7,770**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.037	0.5	**19.6**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.031	0.2	**6.5**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.035	0.5	**25.9**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**16,200**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.046	0.1	**224**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**5,010**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**479**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.056**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.048	0.5	**15.8**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**2,410**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.2**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**270**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.2**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.017	0.2	**26.5**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.33	4	**200**	

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: SA5-5P-2(3 to 6"depth)
SAMPLE

Lab Sample ID: VS18E
LIMS ID: 12-22657
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.9	10	**14,000**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.088	0.2	**9.7**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**144**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.6**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**6,890**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.038	0.5	**19.1**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.1**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.036	0.5	**24.2**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**16,200**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.047	0.1	**170**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**4,690**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**450**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.051**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.049	0.5	**15.5**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**2,070**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**260**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.017	0.2	**25.0**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.34	4	**165**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA5-5P-3(6 to 12"depth)
SAMPLE

Lab Sample ID: VS18F
LIMS ID: 12-22658
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.5	10	**15,500**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.014	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.091	0.2	**6.7**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**141**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**1.2**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.5	10	**6,870**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.040	0.5	**19.5**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.033	0.2	**6.4**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.037	0.5	**23.0**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**17,000**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.049	0.1	**47.7**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**5,170**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.096	0.2	**455**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.022**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.051	0.5	**16.3**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**2,030**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	7440-22-4	Silver	0.0083	0.2	0.2	U
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.5	120	**320**	
3050B	11/16/12	200.8	11/21/12	7440-28-0	Thallium	0.0031	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.018	0.2	**26.7**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.35	4	**83**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA5-5P-4(12 to 18" depth)
SAMPLE

Lab Sample ID: VS18G
LIMS ID: 12-22659
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Percent Total Solids: 97.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.6	10	**15,700**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.088	0.2	**3.8**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**127**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.7**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**6,150**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.038	0.5	**21.0**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.8**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.036	0.5	**23.8**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**17,700**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.047	0.1	**24.9**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**5,220**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.097	0.2	**389**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.018**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.049	0.5	**18.7**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**1,940**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**290**	
3050B	11/16/12	200.8	11/21/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.017	0.2	**28.3**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.34	4	**65**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA5-8C
SAMPLE

Lab Sample ID: VS18H
LIMS ID: 12-22660
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Percent Total Solids: 98.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.8	10	**17,700**	
3050B	11/16/12	200.8	11/21/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.085	0.2	**26.2**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**176**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**5.9**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**4,120**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.037	0.5	**33.8**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.031	0.2	**9.5**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.035	0.5	**35.0**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**22,500**	
3050B	11/16/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.23	0.5	**340**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.4	10	**7,860**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.099	0.2	**540**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.068**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.048	0.5	**20.9**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	43	120	**3,320**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/16/12	200.8	11/21/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.4**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**260**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.017	0.2	**40.6**	
3050B	11/16/12	200.8	11/21/12	**7440-66-6**	**Zinc**	0.33	4	**227**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA7-7C
SAMPLE

Lab Sample ID: VS18I
LIMS ID: 12-22661
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.0	10	**13,000**	
3050B	11/16/12	200.8	11/21/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.1**	
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.088	0.2	**24.1**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**274**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**17.2**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**7,110**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.038	0.5	**18.5**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.4**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.036	0.5	**37.4**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**18,000**	
3050B	11/16/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.24	0.5	**1,280**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**4,480**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**933**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.278**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.050	0.5	**16.4**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**2,430**	
3050B	11/16/12	200.8	11/21/12	**7782-49-2**	**Selenium**	0.10	0.5	**0.6**	
3050B	11/16/12	200.8	11/21/12	**7440-22-4**	**Silver**	0.0081	0.2	**1.0**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**160**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.8**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.017	0.2	**22.4**	
3050B	11/16/12	200.8	11/23/12	**7440-66-6**	**Zinc**	1.7	20	**1,130**	

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: SA7-8C
SAMPLE

Lab Sample ID: VS18J
LIMS ID: 12-22662
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.8	10	**28,400**	
3050B	11/16/12	200.8	11/21/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.086	0.2	**38.7**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**514**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**13.9**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**6,730**	
3050B	11/16/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.19	2	**159**	
3050B	11/16/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.16	1	**22**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.036	0.5	**62.0**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**41,200**	
3050B	11/16/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.23	0.5	**934**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.4	10	**23,400**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.099	0.2	**1,040**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.170**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.048	0.5	**83.8**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	43	120	**13,900**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/16/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.9**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**320**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.9**	
3050B	11/16/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.084	1	**75**	
3050B	11/16/12	200.8	11/23/12	**7440-66-6**	**Zinc**	1.7	20	**770**	

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: SA9-1C
SAMPLE

Lab Sample ID: VS18K
LIMS ID: 12-22663
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.7	10	**20,800**	
3050B	11/16/12	200.8	11/21/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.086	0.2	**28.6**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**721**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**24.2**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**7,380**	
3050B	11/16/12	200.8	11/21/12	**7440-47-3**	**Chromium**	0.038	0.5	**43.9**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.032	0.2	**10.0**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.036	0.5	**32.4**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**25,300**	
3050B	11/16/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.23	0.5	**1,040**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.4	10	**8,560**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.098	0.2	**1,730**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.136**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.048	0.5	**20.9**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**2,390**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/16/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.5**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**160**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.8**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.017	0.2	**36.5**	
3050B	11/16/12	200.8	11/23/12	**7440-66-6**	**Zinc**	1.7	20	**780**	

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: SA9-2C
SAMPLE

Lab Sample ID: VS18L
LIMS ID: 12-22664
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/16/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.5	10	**28,700**	
3050B	11/16/12	200.8	11/21/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/16/12	200.8	11/21/12	**7440-38-2**	**Arsenic**	0.084	0.2	**10.3**	
3050B	11/16/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**2,590**	
3050B	11/16/12	200.8	11/21/12	**7440-41-7**	**Beryllium**	0.017	0.2	**1.5**	
3050B	11/16/12	200.8	11/21/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.9**	
3050B	11/16/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.5	10	**13,200**	
3050B	11/16/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.18	2	**470**	
3050B	11/16/12	200.8	11/21/12	**7440-48-4**	**Cobalt**	0.031	0.2	**24.2**	
3050B	11/16/12	200.8	11/21/12	**7440-50-8**	**Copper**	0.035	0.5	**50.1**	
3050B	11/16/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**40,400**	
3050B	11/16/12	200.8	11/21/12	**7439-92-1**	**Lead**	0.045	0.1	**230**	
3050B	11/16/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**34,900**	
3050B	11/16/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.096	0.2	**840**	
CLP	11/16/12	7471A	11/17/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.054**	
3050B	11/16/12	200.8	11/21/12	**7440-02-0**	**Nickel**	0.047	0.5	**178**	
3050B	11/16/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**17,200**	
3050B	11/16/12	200.8	11/21/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/16/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.5**	
3050B	11/16/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.5	120	**310**	
3050B	11/16/12	200.8	11/21/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.8**	
3050B	11/16/12	200.8	11/21/12	**7440-62-2**	**Vanadium**	0.016	0.2	**73.5**	
3050B	11/16/12	200.8	11/23/12	**7440-66-6**	**Zinc**	1.6	20	**360**	

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: SA5-1C
DUPLICATE

Lab Sample ID: VS18A
LIMS ID: 12-22653
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	14,300	14,700	2.8%	+/- 20%	
Antimony	200.8	0.5	0.4	22.2%	+/- 0.2	L
Arsenic	200.8	11.0	11.0	0.0%	+/- 20%	
Barium	6010C	197	202	2.5%	+/- 20%	
Beryllium	200.8	0.6	0.6	0.0%	+/- 0.2	L
Cadmium	200.8	5.6	5.6	0.0%	+/- 20%	
Calcium	6010C	10,300	10,500	1.9%	+/- 20%	
Chromium	200.8	16.5	13.7	18.5%	+/- 20%	
Cobalt	200.8	5.0	4.9	2.0%	+/- 20%	
Copper	200.8	35.2	36.4	3.4%	+/- 20%	
Iron	6010C	15,100	15,900	5.2%	+/- 20%	
Lead	200.8	337	330	2.1%	+/- 20%	
Magnesium	6010C	3,330	3,510	5.3%	+/- 20%	
Manganese	6010C	851	914	7.1%	+/- 20%	
Mercury	7471A	0.090	0.087	3.4%	+/- 20%	
Nickel	200.8	10.8	10.7	0.9%	+/- 20%	
Potassium	6010C	1,120	1,150	2.6%	+/- 20%	
Selenium	200.8	0.6 U	0.6 U	0.0%	+/- 0.6	L
Silver	200.8	0.3	0.3	0.0%	+/- 0.2	L
Sodium	6010C	230	260	12.2%	+/- 140	L
Thallium	200.8	0.2	0.2	0.0%	+/- 0.2	L
Vanadium	200.8	20.5	19.3	6.0%	+/- 20%	
Zinc	200.8	320	310	3.2%	+/- 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: SA5-1C
MATRIX SPIKE

Lab Sample ID: VS18A
LIMS ID: 12-22653
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	14,300	14,900	221	271%	H
Antimony	200.8	0.5	2.6	28.3	7.4%	N
Arsenic	200.8	11.0	39.3	28.3	100%	
Barium	6010C	197	433	221	107%	
Beryllium	200.8	0.6	29.6	28.3	102%	
Cadmium	200.8	5.6	32.6	28.3	95.4%	
Calcium	6010C	10,300	11,600	1,110	117%	H
Chromium	200.8	16.5	39.4	28.3	80.9%	
Cobalt	200.8	5.0	31.3	28.3	92.9%	
Copper	200.8	35.2	63.4	28.3	99.6%	
Iron	6010C	15,100	15,800	221	317%	H
Lead	200.8	337	367	28.3	106%	H
Magnesium	6010C	3,330	4,700	1,110	123%	
Manganese	6010C	851	937	55.3	156%	H
Mercury	7471A	0.090	0.170	0.0834	95.9%	
Nickel	200.8	10.8	39.0	28.3	99.6%	
Potassium	6010C	1,120	2,250	1,110	102%	
Selenium	200.8	0.6 U	87.7	90.6	96.8%	
Silver	200.8	0.3	25.1	28.3	87.6%	
Sodium	6010C	230	1,380	1,110	104%	
Thallium	200.8	0.2	24.4	28.3	85.5%	
Vanadium	200.8	20.5	45.5	28.3	88.3%	
Zinc	200.8	320	410	90.6	99.3%	

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: LAB CONTROL**

Lab Sample ID: VS18LCS
LIMS ID: 12-22654
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS18-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	205	200	102%	
Antimony	200.8	25.5	25.0	102%	
Arsenic	200.8	27.1	25.0	108%	
Barium	6010C	205	200	102%	
Beryllium	200.8	25.3	25.0	101%	
Cadmium	200.8	25.9	25.0	104%	
Calcium	6010C	989	1000	98.9%	
Chromium	200.8	25.9	25.0	104%	
Cobalt	200.8	26.7	25.0	107%	
Copper	200.8	27.2	25.0	109%	
Iron	6010C	205	200	102%	
Lead	200.8	26.8	25.0	107%	
Magnesium	6010C	1030	1000	103%	
Manganese	6010C	49.7	50.0	99.4%	
Mercury	7471A	0.136	0.143	95.1%	
Nickel	200.8	26.7	25.0	107%	
Potassium	6010C	990	1000	99.0%	
Selenium	200.8	84.7	80.0	106%	
Silver	200.8	24.3	25.0	97.2%	
Sodium	6010C	990	1000	99.0%	
Thallium	200.8	25.5	25.0	102%	
Vanadium	200.8	25.0	25.0	100%	
Zinc	200.8	89	80	111%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

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	MS112111	50.0	48.94	**97.9**	50.0	50.15	**100.3**	50.57	**101.1**	50.02	**100.0**	49.58	**99.2**		
Arsenic	AS	PMS	MS112111	50.0	50.48	**101.0**	50.0	48.68	**97.4**	49.54	**99.1**	48.81	**97.6**	49.20	**98.4**		
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**
Beryllium	BE	PMS	MS112111	50.0	50.65	**101.3**	50.0	51.41	**102.8**	47.58	**95.2**	51.47	**102.9**	50.64	**101.3**		
Cadmium	CD	PMS	MS112111	50.0	49.67	**99.3**	50.0	50.26	**100.5**	50.33	**100.7**	50.07	**100.1**	49.67	**99.3**		
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	MS112111	50.0	49.85	**99.7**	50.0	48.46	**96.9**	50.62	**101.2**	48.79	**97.6**	49.66	**99.3**		
Cobalt	CO	PMS	MS112111	50.0	49.79	**99.6**	50.0	48.18	**96.4**	52.29	**104.6**	48.19	**96.4**	50.05	**100.1**		
Copper	CU	PMS	MS112111	50.0	50.67	**101.3**	50.0	49.19	**98.4**	49.46	**98.9**	48.63	**97.3**	48.83	**97.7**		
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	MS112111	50.0	49.53	**99.1**	50.0	48.04	**96.1**	49.57	**99.1**	48.24	**96.5**	48.49	**97.0**		
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	HG111701	8.0	7.26	**90.8**	4.0	3.69	**92.3**	3.65	**91.3**	1.76	**44.0**	3.63	**90.8**	3.59	**89.8**
Nickel	NI	PMS	MS112111	50.0	50.70	**101.4**	50.0	48.61	**97.2**	48.23	**96.5**	48.37	**96.7**	48.49	**97.0**		
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	MS112111	80.0	78.88	**98.6**	50.0	49.27	**98.5**	49.93	**99.9**	49.16	**98.3**	49.84	**99.7**		
Silver	AG	PMS	MS112111	50.0	51.05	**102.1**	50.0	48.31	**96.6**	49.16	**98.3**	45.67	**91.3**	44.49	**89.0**		
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	MS112111	50.0	52.63	**105.3**	50.0	51.02	**102.0**	46.17	**92.3**	45.35	**90.7**	45.88	**91.8**		
Vanadium	V	PMS	MS112111	50.0	48.00	**96.0**	50.0	47.31	**94.6**	47.55	**95.1**	46.33	**92.7**	47.13	**94.3**		
Zinc	ZN	PMS	MS112111	50.0	49.97	**99.9**	50.0	49.39	**98.8**	51.28	**102.6**	50.55	**101.1**	49.92	**99.8**		

VS18 : 99935

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: VS18

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	MS112111	50.0												
Arsenic	AS	PMS	MS112111	50.0												
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**
Beryllium	BE	PMS	MS112111	50.0												
Cadmium	CD	PMS	MS112111	50.0												
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	MS112111	50.0												
Cobalt	CO	PMS	MS112111	50.0												
Copper	CU	PMS	MS112111	50.0												
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	MS112111	50.0												
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	HG111701	4.0												
Nickel	NI	PMS	MS112111	50.0												
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	MS112111	50.0												
Silver	AG	PMS	MS112111	50.0												
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	MS112111	50.0												
Vanadium	V	PMS	MS112111	50.0												
Zinc	ZN	PMS	MS112111	50.0												

VS18:00027

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: VS18

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	MS112111	50.0												
Arsenic	AS	PMS	MS112111	50.0												
Barium	BA	ICP	IP112371	1000.0	996.57	**99.7**	997.32	**99.7**								
Beryllium	BE	PMS	MS112111	50.0												
Cadmium	CD	PMS	MS112111	50.0												
Calcium	CA	ICP	IP112371	2000.0	2053.45	**102.7**	2074.98	**103.7**								
Chromium	CR	PMS	MS112111	50.0												
Cobalt	CO	PMS	MS112111	50.0												
Copper	CU	PMS	MS112111	50.0												
Iron	FE	ICP	IP112371	2000.0	2088.23	**104.4**	2113.53	**105.7**								
Lead	PB	PMS	MS112111	50.0												
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	HG111701	4.0												
Nickel	NI	PMS	MS112111	50.0												
Potassium	K	ICP	IP112371	20000.0	20073.17	**100.4**	20025.69	**100.1**								
Selenium	SE	PMS	MS112111	50.0												
Silver	AG	PMS	MS112111	50.0												
Sodium	NA	ICP	IP112371	50000.0	52489.70	**105.0**	52021.06	**104.0**								
Thallium	TL	PMS	MS112111	50.0												
Vanadium	V	PMS	MS112111	50.0												
Zinc	ZN	PMS	MS112111	50.0												

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: VS18

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
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**		
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**		
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**		
Silver	AG	PMS	MS112311	50.0	51.51	**103.0**	50.0	48.96	**97.9**	50.63	**101.3**	54.62	**109.2**	55.21	**110.4**		
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**		
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**		

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: VS18

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Silver	AG	PMS	MS112611	50.0	52.63	**105.3**	50.0	51.23	**102.5**	53.13	**106.3**	52.28	**104.6**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

CRDL Standard

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

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	MS112111	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS112111	0.2	0.25	**125.0**										
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**		
Beryllium	BE	PMS	MS112111	0.2	0.21	**105.0**										
Cadmium	CD	PMS	MS112111	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	MS112111	0.5	0.56	**112.0**										
Cobalt	CO	PMS	MS112111	0.2	0.21	**105.0**										
Copper	CU	PMS	MS112111	0.5	0.53	**106.0**										
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	MS112111	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	HG111701	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS112111	0.5	0.51	**102.0**										
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	MS112111	0.5	0.57	**114.0**										
Silver	AG	PMS	MS112111	0.2	0.21	**105.0**										
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	MS112111	0.2	0.20	**100.0**										
Vanadium	V	PMS	MS112111	0.2	0.21	**105.0**										
Zinc	ZN	PMS	MS112111	4.0	4.84	**121.0**										
Chromium	CR	PMS	MS112311	0.5	0.58	**116.0**										
Cobalt	CO	PMS	MS112311	0.2	0.21	**105.0**										
Lead	PB	PMS	MS112311	0.1	0.11	**110.0**										
Silver	AG	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**										

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

UNITS: ug/L

SDG: VS18

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	MS112611		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

UNITS: ug/L

SDG: VS18

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	MS112111	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Arsenic	AS	PMS	MS112111	10.0	0.2	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
Beryllium	BE	PMS	MS112111	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Cadmium	CD	PMS	MS112111	5.0	0.1	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	MS112111	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Cobalt	CO	PMS	MS112111	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Copper	CU	PMS	MS112111	25.0	0.5	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	MS112111	3.0	0.1	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	HG111701	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Nickel	NI	PMS	MS112111	40.0	0.5	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	MS112111	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Silver	AG	PMS	MS112111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	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	MS112111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Vanadium	V	PMS	MS112111	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Zinc	ZN	PMS	MS112111	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U		

VS18 0959

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

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	MS112111	60.0	0.2												
Arsenic	AS	PMS	MS112111	10.0	0.2												
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
Beryllium	BE	PMS	MS112111	5.0	0.2												
Cadmium	CD	PMS	MS112111	5.0	0.1												
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	MS112111	10.0	0.5												
Cobalt	CO	PMS	MS112111	50.0	0.2												
Copper	CU	PMS	MS112111	25.0	0.5												
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	MS112111	3.0	0.1												
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	HG111701	0.2	0.1												
Nickel	NI	PMS	MS112111	40.0	0.5												
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	MS112111	5.0	0.5												
Silver	AG	PMS	MS112111	10.0	0.2												
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	MS112111	10.0	0.2												
Vanadium	V	PMS	MS112111	50.0	0.2												
Zinc	ZN	PMS	MS112111	20.0	4.0												

Calibration Blanks

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

ANALYTICAL RESOURCES INCORPORATED

UNITS: ug/L

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	MS112111	60.0	0.2												
Arsenic	AS	PMS	MS112111	10.0	0.2												
Barium	BA	ICP	IP112371	200.0	3.0	3.0	U										
Beryllium	BE	PMS	MS112111	5.0	0.2												
Cadmium	CD	PMS	MS112111	5.0	0.1												
Calcium	CA	ICP	IP112371	5000.0	50.0	50.0	U										
Chromium	CR	PMS	MS112111	10.0	0.5												
Cobalt	CO	PMS	MS112111	50.0	0.2												
Copper	CU	PMS	MS112111	25.0	0.5												
Iron	FE	ICP	IP112371	100.0	50.0	50.0	U										
Lead	PB	PMS	MS112111	3.0	0.1												
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	HG111701	0.2	0.1												
Nickel	NI	PMS	MS112111	40.0	0.5												
Potassium	K	ICP	IP112371	5000.0	500.0	500.0	U										
Selenium	SE	PMS	MS112111	5.0	0.5												
Silver	AG	PMS	MS112111	10.0	0.2												
Sodium	NA	ICP	IP112371	5000.0	500.0	500.0	U										
Thallium	TL	PMS	MS112111	10.0	0.2												
Vanadium	V	PMS	MS112111	50.0	0.2												
Zinc	ZN	PMS	MS112111	20.0	4.0												

VS18:00045

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS18

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Chromium	CR	PMS	MS112311	10.0	0.5	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		
Lead	PB	PMS	MS112311	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Silver	AG	PMS	MS112311	10.0	0.2	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		
Zinc	ZN	PMS	MS112311	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U		

VS1800015

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Silver	AG	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

VS18 - 0957

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

ICS SOURCE: I.V.

RUNID: IP112371

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: VS18

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: VS18

ICS SOURCE: I.V.

RUNID: MS112111

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	19.5	**97.5**						
Barium			0.0	0.1							
Cadmium		20	0.1	19.5	**97.5**						
Chromium		20	0.6	20.4	**102.0**						
Cobalt		20	0.0	19.7	**98.5**						
Copper		20	1.1	20.5	**102.5**						
Manganese		20	0.1	18.5	**92.5**						
Molybdenum	400	400	431.1	429.1	**107.3**						
Nickel		20	0.4	20.2	**101.0**						
Selenium			-0.1	-0.2							
Silver		20	0.0	19.2	**96.0**						
Thorium			0.2	0.1							
Zinc		20	1.0	20.3	**101.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS112311

SDG: VS18

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**						

VS18_9065

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

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**						

VS18.0052

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS18

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA5-1CA	VS18APOST	MS112111	490.24	B	8.20	B	500	Soil	**96.4**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VS18

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA5-1CL	VS18A-L	Soil	IP112371	51763.11		49488.55		4.4	
Barium	SA5-1CL	VS18A-L	Soil	IP112371	713.23		695.70	B	2.5	
Calcium	SA5-1CL	VS18A-L	Soil	IP112371	37192.87		36556.95		1.7	
Iron	SA5-1CL	VS18A-L	Soil	IP112371	54590.96		52615.90		3.6	
Magnesium	SA5-1CL	VS18A-L	Soil	IP112371	12038.42		12344.35	B	2.5	
Manganese	SA5-1CL	VS18A-L	Soil	IP112371	3081.07		2955.75		4.1	
Potassium	SA5-1CL	VS18A-L	Soil	IP112371	4053.56	B	3900.10	B	3.8	
Sodium	SA5-1CL	VS18A-L	Soil	IP112371	840.33	B	2500.00	U	100.0	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS18

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA5-1CL	VS18A-L	Soil	MS112111	0.41	B	0.45	B	9.8	
Arsenic	SA5-1CL	VS18A-L	Soil	MS112111	9.73	B	10.50	B	7.9	
Beryllium	SA5-1CL	VS18A-L	Soil	MS112111	0.55	B	0.60	B	9.1	
Cadmium	SA5-1CL	VS18A-L	Soil	MS112111	4.96	B	5.55	B	11.9	
Chromium	SA5-1CL	VS18A-L	Soil	MS112111	14.63		14.65	B	0.1	
Cobalt	SA5-1CL	VS18A-L	Soil	MS112111	4.47	B	4.80	B	7.4	
Copper	SA5-1CL	VS18A-L	Soil	MS112111	31.21		34.50	B	10.5	
Nickel	SA5-1CL	VS18A-L	Soil	MS112111	9.57	B	10.15	B	6.1	
Selenium	SA5-1CL	VS18A-L	Soil	MS112111	0.36	U	0.90	B		
Thallium	SA5-1CL	VS18A-L	Soil	MS112111	0.22	B	0.30	B	36.4	
Vanadium	SA5-1CL	VS18A-L	Soil	MS112111	18.20	B	18.55	B	1.9	
Lead	SA5-1CL	VS18A-L	Soil	MS112311	59.67		60.45		1.3	
Silver	SA5-1CL	VS18A-L	Soil	MS112311	0.25	B	0.25	B	0.0	
Zinc	SA5-1CL	VS18A-L	Soil	MS112311	56.29		63.15	B	12.2	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18 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: VS18

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

VS18 00057

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VS18

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: VS18

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/16/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA5-1C	VS18A	1.084	0.0	50.0
SA5-1CD	VS18ADUP	1.087	0.0	50.0
SA5-1CS	VS18ASPK	1.082	0.0	50.0
SA5-2C	VS18B	1.066	0.0	50.0
SA5-5C	VS18C	1.086	0.0	50.0
SA5-5P-1(0 to 3	VS18D	1.057	0.0	50.0
SA5-5P-2(3 to 6	VS18E	1.057	0.0	50.0
SA5-5P-3(6 to 12	VS18F	1.095	0.0	50.0
SA5-5P-4(12 to 18	VS18G	1.058	0.0	50.0
SA5-8C	VS18H	1.024	0.0	50.0
SA7-7C	VS18I	1.029	0.0	50.0
SA7-8C	VS18J	1.044	0.0	50.0
SA9-1C	VS18K	1.091	0.0	50.0
SA9-2C	VS18L	1.070	0.0	50.0
PBS	VS18MB1	1.000	0.0	50.0
LCSS	VS18MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/16/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA5-1C	VS18A	1.061	0.0	50.0
SA5-1CD	VS18ADUP	1.065	0.0	50.0
SA5-1CS	VS18ASPK	1.058	0.0	50.0
SA5-2C	VS18B	1.082	0.0	50.0
SA5-5C	VS18C	1.095	0.0	50.0
SA5-5P-1(0 to 3	VS18D	1.085	0.0	50.0
SA5-5P-2(3 to 6	VS18E	1.055	0.0	50.0
SA5-5P-3(6 to 12	VS18F	1.005	0.0	50.0
SA5-5P-4(12 to 18	VS18G	1.016	0.0	50.0
SA5-8C	VS18H	1.042	0.0	50.0
SA7-7C	VS18I	1.035	0.0	50.0
SA7-8C	VS18J	1.046	0.0	50.0
SA9-1C	VS18K	1.075	0.0	50.0
SA9-2C	VS18L	1.064	0.0	50.0
PBS	VS18MB1	1.000	0.0	50.0
LCSS	VS18MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/16/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA5-1C	VS18A	0.716	0.0	50.0
SA5-1CD	VS18ADUP	0.720	0.0	50.0
SA5-1CS	VS18ASPK	0.718	0.0	50.0
SA5-2C	VS18B	0.747	0.0	50.0
SA5-5C	VS18C	0.734	0.0	50.0
SA5-5P-1(0 to 3	VS18D	0.725	0.0	50.0
SA5-5P-2(3 to 6	VS18E	0.739	0.0	50.0
SA5-5P-3(6 to 12	VS18F	0.706	0.0	50.0
SA5-5P-4(12 to 18	VS18G	0.723	0.0	50.0
SA5-8C	VS18H	0.745	0.0	50.0
SA7-7C	VS18I	0.731	0.0	50.0
SA7-8C	VS18J	0.735	0.0	50.0
SA9-1C	VS18K	0.708	0.0	50.0
SA9-2C	VS18L	0.747	0.0	50.0
PBS	VS18MB1	0.700	0.0	50.0
LCSW	VS18MB1SPK	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: VS18 | 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											
PBS	VS18MB1	2.00	11153			X			X		X					X		X	X	X		X											
SA5-2C	VS18B	5.00	11195			X			X		X					X		X	X	X		X											
SA5-5C	VS18C	5.00	11235			X			X		X					X		X	X	X		X											

FORM XIV

VS18 9992

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS18 | 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
SA5-5P-1(0 to 3	VS18D	5.00	11275			X			X		X					X		X	X	X		X											
SA5-1CL	VS18A-L	25.00	11315			X			X		X					X		X	X	X		X											
SA5-1C	VS18A	5.00	11355			X			X		X					X		X	X	X		X											
SA5-1CD	VS18ADUP	5.00	11401			X			X		X					X		X	X	X		X											
SA5-1CS	VS18ASPK	5.00	11442			X			X		X					X		X	X	X		X											
SA5-1CA	VS18APOST	5.00	11482																														
LCSS	VS18MB1SPK	2.00	11514			X			X		X					X		X	X	X		X											
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											
SA5-5P-2(3 to 6	VS18E	5.00	12042			X			X		X					X		X	X	X		X											
SA5-5P-3(6 to 12	VS18F	5.00	12082			X			X		X					X		X	X	X		X											
SA5-5P-4(12 to 18	VS18G	5.00	12122			X			X		X					X		X	X	X		X											
SA5-8C	VS18H	5.00	12162			X			X		X					X		X	X	X		X											
SA7-7C	VS18I	5.00	12202																														
SA7-8C	VS18J	5.00	12242																														
SA9-1C	VS18K	5.00	12283			X			X		X					X		X	X	X		X											
SA9-2C	VS18L	5.00	12323			X			X		X					X		X	X	X		X											
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

VS18 0003

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS18 | 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											
ZZZZZZ	VS20MB1	2.00	15030																														
ZZZZZZ	VS20B	5.00	15071																														
ZZZZZZ	VS20C	5.00	15112																														
ZZZZZZ	VS20D	5.00	15152																														
ZZZZZZ	VS20A-L	25.00	15192																														
ZZZZZZ	VS20A	5.00	15232																														
ZZZZZZ	VS20ADUP	5.00	15272																														
ZZZZZZ	VS20ASPK	5.00	15312																														
ZZZZZZ	ZZZZZZ	5.00	15352																														
ZZZZZZ	VS20MB1SPK	2.00	15393																														
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											
ZZZZZZ	VS20E	5.00	15520																														
ZZZZZZ	VS20F	5.00	15560																														
ZZZZZZ	VS20G	5.00	16001																														
ZZZZZZ	VS20H	5.00	16041																														
ZZZZZZ	VS20I	5.00	16081																														
ZZZZZZ	VS20J	5.00	16121																														

FORM XIV

VS18:00054

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS18 | 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	VS20K	5.00	16161																														
ZZZZZZ	VS20L	5.00	16201																														
SA7-7C	VS18I	5.00	16241			X			X		X					X		X	X	X		X											
SA7-8C	VS18J	5.00	16281			X			X		X					X		X	X	X		X											
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											

VS18 0055

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/21/2012

SDG: VS18 | RUNID: MS112111 METHOD: PMS | END DATE: 11/21/2012

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	13120		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	13160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	13200		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	13250		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	13290		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	13350																														
ZZZZZZ	Rinse sampl	1.00	13420																														
ICV	MICV	1.00	13500		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	13570		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	14010		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	14080		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	14120		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	14160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	14230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	14300																														
ZZZZZZ	LR300	1.00	14370																														
ZZZZZZ	B1	1.00	14430																														
ZZZZZZ	B2	1.00	14490																														
ZZZZZZ	B3	1.00	14550																														
CCV	MCCV2	1.00	14590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	15060		X		X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VS18MB1	20.00	15210		X		X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VS18MB1SPK	20.00	15260		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-2C	VS18B	20.00	15300		X		X			X		X			X								X	X	X	X				X			X
SA5-5C	VS18C	20.00	15340		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-5P-1(0 to 3	VS18D	20.00	15380		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-5P-2(3 to 6	VS18E	20.00	15420		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-5P-3(6 to 12	VS18F	20.00	15460		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-5P-4(12 to 18	VS18G	20.00	15500		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-8C	VS18H	20.00	15560		X		X			X		X	X	X	X								X		X	X				X		X	X
SA7-7C	VS18I	20.00	16000		X		X			X		X	X	X	X								X		X	X				X		X	
CCV	MCCV3	1.00	16040		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	16110		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA5-1CL	VS18A-L	100.00	16190				X			X		X	X	X	X								X		X	X				X		X	
SA5-1C	VS18A	20.00	16230				X			X		X	X	X	X								X		X	X				X		X	

FORM XIV

VS18 9055

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS18

INSTRUMENT ID: NEXION 300D MS

RUNID: MS112111 METHOD: PMS

START DATE: 11/21/2012

END DATE: 11/21/2012

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
SA5-1CD	VS18ADUP	20.00	16280				X			X		X	X	X	X								X		X	X				X		X	
SA5-1CS	VS18ASPK	20.00	16320				X			X		X	X	X	X								X		X	X				X		X	
SA5-1CA	VS18APOST	20.00	16360																						X								
SA7-8C	VS18J	20.00	16400				X			X		X			X								X		X	X				X			
SA9-1C	VS18K	20.00	16450				X			X		X	X	X	X								X		X	X				X		X	
SA9-2C	VS18L	20.00	16490				X			X		X	X		X								X	X	X	X				X		X	
ZZZZZZ	VR68C	5.00	16530																														
ZZZZZZ	VS04A	20.00	16580																														
CCV	MCCV4	1.00	17020		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	17090		X		X			X		X	X	X	X								X	X	X	X				X		X	X

VS18:00267

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS18 | 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
S1	S1	1.00	12190		X								X	X										X								X	X
S2	S2	1.00	12240		X								X	X										X								X	X
S3	S3	1.00	12280		X								X	X										X								X	X
S4	S4	1.00	12330		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
ICB	ICB	1.00	13000		X								X	X										X								X	X
CCV	MCCV1	1.00	13040		X								X	X										X								X	X
CCB	CCB1	1.00	13100		X								X	X										X								X	X
CRI	MCRI	1.00	13150		X								X	X										X								X	X
ICSA	ICSAI	1.00	13190		X								X	X										X								X	X
ICSAB	ICSABI	1.00	13250		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
CCB	CCB2	1.00	14080		X								X	X										X								X	X
SA5-1CL	VS18A-L	500.00	14130																					X									X
SA5-1C	VS18A	100.00	14170																					X									X
SA5-1CD	VS18ADUP	100.00	14210																					X									X
SA5-1CS	VS18ASPK	100.00	14250																					X									X
SA5-1CL	VS18A-L	100.00	14290		X																												
SA5-1C	VS18A	20.00	14330		X																												
SA5-1CD	VS18ADUP	20.00	14370		X																												
SA5-1CS	VS18ASPK	20.00	14420		X																												
SA5-2C	VS18B	100.00	14470										X	X																		X	
SA5-8C	VS18H	100.00	14510																					X									
CCV	MCCV3	1.00	14550		X								X	X										X								X	X
CCB	CCB3	1.00	15020		X								X	X										X								X	X
ZZZZZZ	VR64MB2	1.00	15070																														
ZZZZZZ	VR64MB2SPK	1.00	15120																														

FORM XIV

VS18 0005

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS18 | 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
SA7-8C	VS18J	100.00	15160										X	X										X								X	X
SA7-8C	VS18J	20.00	15200																														
SA9-1C	VS18K	100.00	15240																					X									X
SA9-1C	VS18K	20.00	15280																														
SA9-2C	VS18L	100.00	15330											X																			X
SA9-2C	VS18L	20.00	15370																														
SA7-7C	VS18I	100.00	15410																					X									X
ZZZZZZ	VR64B	20.00	15460																														
CCV	MCCV4	1.00	15500		X								X	X										X								X	X
CCB	CCB4	1.00	15570		X								X	X										X								X	X

VS18 0999

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS18 | 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																												
S1	S1	1.00	10070		X																												
S2	S2	1.00	10110		X																												
S3	S3	1.00	10150		X																												
S4	S4	1.00	10200		X																												
S5	S5	1.00	10260																														
ZZZZZZ	Rinse sampl	1.00	10330																														
ICV	MICV	1.00	10430		X																												
ICB	ICB	1.00	10500		X																												
CCV	MCCV1	1.00	10540		X																												
CCB	CCB1	1.00	11010		X																												
CRI	MCRI	1.00	11050		X																												
ICSA	ICSAI	1.00	11090		X																												
ICSAB	ICSABI	1.00	11160		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																												
CCB	CCB2	1.00	12040		X																												
ZZZZZZ	VS19MB1	20.00	12110																														
ZZZZZZ	VS19MB1SPK	20.00	12150																														
SA7-8C	VS18J	20.00	12190		X																												
SA9-1C	VS18K	20.00	12230		X																												
SA9-2C	VS18L	20.00	12280		X																												
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																												
CCB	CCB3	1.00	13000		X																												

VS18 00076

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VS18 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	06462														X																
S0.1	S0.1	1.00	06475														X																
S0.5	S0.5	1.00	06493														X																
S1	S1	1.00	06511														X																
S2	S2	1.00	06524														X																
S5	S5	1.00	06542														X																
S10	S10	1.00	06560														X																
ICV	AICV	1.00	07050														X																
ICB	ICB	1.00	07063														X																
CCV	ACCV1	1.00	07081														X																
CCB	CCB1	1.00	07095														X																
CRA	CRA	1.00	07113														X																
PBW	VS18MB1	1.00	07130														X																
LCSW	VS18MB1SPK	1.00	07144														X																
SA5-1C	VS18A	1.00	07161														X																
SA5-1CD	VS18ADUP	1.00	07175														X																
SA5-1CS	VS18ASPK	1.00	07193														X																
SA5-2C	VS18B	1.00	07210														X																
SA5-5C	VS18C	1.00	07224														X																
SA5-5P-1(0 to 3	VS18D	1.00	07242														X																
SA5-5P-2(3 to 6	VS18E	1.00	07260														X																
CCV	ACCV2	1.00	07274														X																
CCB	CCB2	1.00	07292														X																
SA5-5P-3(6 to 12	VS18F	1.00	07310																														
SA5-5P-4(12 to 18	VS18G	1.00	07323																														
SA5-8C	VS18H	1.00	07341																														
SA7-7C	VS18I	1.00	07354																														
SA7-8C	VS18J	1.00	07372																														
SA9-1C	VS18K	1.00	07385																														
SA9-2C	VS18L	1.00	07403																														
ZZZZZZ	VR37MB1	1.00	07421																														
ZZZZZZ	VR37MB1SPK	1.00	07434																														
ZZZZZZ	VR37A	1.00	07452																														
CCV	ACCV3	1.00	07470														X																
CCV	ACCV4	1.00	07584														X																

FORM XIV

VS18.0007

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/17/2012

SDG: VS18 | RUNID: HG111701 METHOD: CVA | END DATE: 11/17/2012

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	08002														X																
SA5-5P-3(6 to 12	VS18F	1.00	08020														X																
SA5-5P-4(12 to 18	VS18G	1.00	08033														X																
SA5-8C	VS18H	1.00	08051														X																
SA7-7C	VS18I	1.00	08064														X																
SA7-8C	VS18J	1.00	08082														X																
SA9-1C	VS18K	1.00	08095														X																
SA9-2C	VS18L	1.00	08113														X																
ZZZZZZ	VR37MB1	1.00	08131																														
ZZZZZZ	VR37MB1SPK	1.00	08144																														
ZZZZZZ	VR37A	1.00	08162																														
CCV	ACCV5	1.00	08180														X																
CCB	CCB4	1.00	08194														X																

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS18

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-1C
ARI ID: 12-22653 VS18A

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.47
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	84.10
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.196	6.81

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-2C
ARI ID: 12-22654 VS18B

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.15
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	94.50
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.180	5.96

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-5C
ARI ID: 12-22655 VS18C

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.17
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	94.90
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.194	6.01

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-5P-1(0 to 3"depth)
ARI ID: 12-22656 VS18D

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.16
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	95.20
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.196	7.34

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-5P-2(3 to 6"depth)
ARI ID: 12-22657 VS18E

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.15
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	94.60
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	7.22

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-5P-3(6 to 12"depth)
ARI ID: 12-22658 VS18F

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.06
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	96.10
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.198	5.17

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-5P-4(12 to 18" depth)
ARI ID: 12-22659 VS18G

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.13
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.20
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.196	4.71

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA5-8C
ARI ID: 12-22660 VS18H

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.10
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.70
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	3.52

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA7-7C
ARI ID: 12-22661 VS18I

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.46
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	96.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	5.19

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA7-8C
ARI ID: 12-22662 VS18J

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.97
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	97.40
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.020	1.21

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA9-1C
ARI ID: 12-22663 VS18K

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.19
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	95.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.194	4.06

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA9-2C
ARI ID: 12-22664 VS18L

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.10
Total Solids	11/16/12 111612#1	SM2540B	Percent	0.01	98.00
Total Organic Carbon	11/27/12 112712#1	Plumb,1981	Percent	0.184	3.80

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

METHOD BLANK RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/16/12	Percent	< 0.01 U
Total Organic Carbon	11/27/12	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

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	11/27/12	Percent	0.095	0.100	95.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

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	11/27/12	Percent	2.81	2.99	94.0%

REPLICATE RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VS18A Client ID: SA5-1C					
pH	11/21/12	std units	6.47	6.45	0.02
Total Solids	11/16/12	Percent	84.10	84.40 84.30	0.2%
Total Organic Carbon	11/27/12	Percent	6.81	6.81 7.40	4.9%

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

MS/MSD RESULTS-CONVENTIONALS
VS18-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/28/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VS18A Client ID: SA5-1C						
Total Organic Carbon	11/27/12	Percent	6.81	16.3	9.76	97.2%

Total Solids

ARI Job ID: VS18

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 014 **Balance ID:** B116132369

Samples in Oven: Date: 11-16-12 Time: 1131 Temp: 108°C Analyst: NB

Removed from Oven: Date: 11-17-12 Time: 0810 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]
VS18 A	0.998	10.550	8.973	—	✓
" B	1.021	10.687	10.072	—	✓
" C	0.992	10.622	10.067	—	✓
" D	1.002	10.486	9.972	—	✓
" E	1.000	10.634	10.058	—	✓
" F	1.016	10.346	9.931	—	✓
" G	0.991	10.973	10.731	—	✓
" H	0.975	10.133	9.971	—	✓
" I	0.984	10.484	10.044	—	✓
" J	0.994	10.328	10.023	—	✓
" K	1.019	10.539	9.968	—	✓
" L	0.990	10.348	10.102	—	✓
		NB 11-16-12			

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: VS18

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: NB **Final Volume** 50.0 **Sample ID** VS18ASPK, MB1SPK

Date: 11-16-12 **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.

VS18 : 8TSA

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: SOIL
Analyst: NB Date: 11-16-12
Bath Temp: 94°C Start Time: 1237 End Time: 1307

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS18 A	1	—	0.716	50.0	11-22 1	YES	
" ADUP	1	—	~~0.744~~*		1		0.720 * NB 11-16-12
" ASPK	1	—	0.718		1		
" B	1	—	0.747		1		
" C	1	—	0.734		1		
" D	1	—	0.725		1		
" E	1	—	0.739		1		
" F	1	—	0.706		1		
" G	1	—	0.723		1		
" H	1	—	0.745		1		
" I	1	—	0.731		1		
" J	1	—	0.735		1		
" K	1	—	0.708		1		
" L	1	—	0.747		1		
" MB1	—	—	—	↓	1		
" MB1SPK	—	—	—	50.0	1	↓	

NB 11-16-12

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
Analytical Chemists and Consultants

Digestion Log

Analyst: NB Date: 11-16-12 Time: 1217

Matrix: SOIL Block ID: #5 Block Temp: 90°C Thermometer: MP8

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
VS18 A	1	←	1.084	50.0	1.061	50.0	
" ADUP	1	—	1.087		1.065		
" ASPK	1	—	1.082		1.058		
" B	1	—	1.066		1.082		
" C	1	—	1.086		1.095		
" D	1	—	1.057		1.085		
" E	1	—	1.057		1.055		
NB 11-16-12* " F	1	—	~~0~~ 1.095		1.005		
" G	1	—	1.058		1.016		
" H	1	—	1.024		1.042		
" I	1	—	1.029		1.035		
" J	1	—	1.044		1.046		
" K	1	—	1.091		1.075		
" L	1	—	1.070		1.064		
" MB1	—	—	—		—		
" MB1SPK	—	—	—	50.0	—	50.0	

NB 11-16-12

Chemical/Reagent ID:

HNO_3: MP2390/I7833 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VS18

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS18
Unacceptable Blank:	☐	Date of Event:	11.21.12
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

A-L (100x): 6.898 ppb Cu
A (20x): 31.206 ppb Cu % difference = 10.5

A: 0.414 ppb Sb
ASPK: 2.338 ppb Sb %R = 7.7

post-spike ok

Samples Affected:

Corrective Action Taken:

4/26/12

Analyst Initials: MJJ **Supervisor:**

Date: 11.23.12 **Date:**

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS18
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:

Mg in ASPK may be high. APOST in control at 110%.

Spike level too low

Samples Affected:

Corrective Action Taken:

Analyst Initials:	BJA	**Supervisor:**	
Date:	11/27/12	**Date:**	

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			Mo >RL @ 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	↓		
		MB1SPK		✓	
		↓ MB1SPD	↓	✓	
		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		↓ ✓	↓
		↓ MB1SPK	↓	2 ✓	
		CCV4			
		CCB4			
		VS18 E	SWC	5	
		F	↓	↓	
		G			
		↓ H	↓	↓	

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
		ZZZZZZ BA APOST 11/27/12			✓ ↓
		MBISPK		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 (0.00130 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
		~~APOST~~ BA 11/28/12		↓	✓ ↓
		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			

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: 6 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		ICSA			
		ICSAB			
		CCV15			
		CCB14			
		Rinse / DI			
		BA 11/26/12			

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 JS

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

VS18:00107

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

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

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
Sample ID: STD4

Autosampler Location: 4
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
Sample ID: STD5

Autosampler Location: 5
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

Analysis Begun

Start Time: 11/23/2012 9:17:54 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: 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	Std.Dev.	Sample Conc.	Sample Units	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: JCB

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
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

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Sequence No.: 3
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 301
Date Collected: 11/23/2012 9:32:30 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	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	Conc.	Calib. Units	Std.Dev.	Conc.	Sample 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	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	Calib. Conc.	Calib. Units	Std.Dev.	Sample 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
A11	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
All	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%
Sb 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	Std.Dev.	Sample Conc.	Sample Units	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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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
All	218.0 kPa	0.75 L/min

Mean Data: VS18 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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

Del

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	Std.Dev.	Sample Conc.	Sample Units	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	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.	Units	Std.Dev.	Sample Conc.	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Std.Dev.	Sample Conc.	Sample Units	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	Std.Dev.	Sample Conc.	Sample Units	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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.	Units	Std.Dev.	Sample Conc.	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	Conc.	Calib. Units	Std.Dev.	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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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
A11	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Std.Dev.	Sample Conc.	Sample Units	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.	Conc.	Sample Units	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
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	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	Conc.	Calib. Units	Std.Dev.	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 Cont.	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	Std.Dev.	Sample Conc.	Sample Units	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	Calib. Conc.	Calib. Units	Std.Dev.	Sample 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	Calib. Conc.	Calib. Units	Std.Dev.	Sample 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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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
All	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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	Std.Dev.	Sample Conc.	Sample Units	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 11/26/12
Dilution: 5.000000X

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
Sample ID: VS20 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 364
Date Collected: 11/23/2012 3:39:30 PM
Data Type: Original

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 11
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	Std.Dev.	Sample Conc.	Sample Units	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.	Units	Std.Dev.	Sample Conc.	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
Sample ID: VS20 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 367
Date Collected: 11/23/2012 4:00:10 PM
Data Type: Original

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	Std.Dev.	Sample Conc.	Sample Units	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.	Units	Std.Dev.	Sample Conc.	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
All	219.0 kPa	0.75 L/min

Mean Data: VS20 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	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.	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.	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
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	Calib. Conc.	Calib. Units	Std.Dev.	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Std.Dev.	Sample Conc.	Sample Units	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.	Units	Std.Dev.	Sample Conc.	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%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.21.12 **Analyst:** MJT **Page:** 1 **of** 5

All corrections made by analyst unless otherwise noted. 11.21.12 MJT

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2991-1
		3			↓ -2
		4			~~2992-6~~ 2993-15
		5			2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			^{114}Cd, Sb high
		LR300			Co, Sb, ^{137}Ba high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VS18 MB1	SWN	20	
		MB1SPK	↓	↓	✓
		B	↓	↓	rr V, Cr, Co 1100 (Sc high)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 11.21.12 **Analyst:** MJT **Page:** 2 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS18 C	SWN	20	
		↓ D	↓	↓	
		↓ E	↓	↓	
		↓ F	↓	↓	
		↓ G	↓	↓	
		↓ H	↓	↓	rr Pb 1/100
		↓ I	↓	↓	rr Pb Zn 1/100
		CCV3			
		CCB3			
		VS18 A-L	SWN	100	rr Pb (500x) Zn (100x) Ag Cu 10.5% diff
		↓ A	↓	20	↓ (CAF)
		↓ ADUP	↓	↓ ✓	↓
		↓ ASPK	↓	↓	↓ Sb low %R
		↓ APOST	↓	↓	Sb 0.01mL PMSspk#1 1/10 0.01mL PMSspk#2 1/10
		↓ J	↓	↓	rr V, Cr Co, Pb Zn (100x) ; Ag (20x)
		↓ K	↓	↓	rr Pb Zn (1/100) ; Ag 1/20
		↓ L	↓	↓	rr Ag Cr Zn 1/100
		VR68 C	REN	5	Cr
		VS04 A	↓	20	As
		CCV4			Ag low
		CCB4			
		VR64 MBI	RHN		rr Zn
		↓ MBISPK	↓	✓	↓
		↓ ADUP	↓	✓	↓

MJT 11-23-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (CP-MS) GFA CVA Analysis Date: 11.21.12

M2 Nexion	Analyst MJT 11.23.12	Peer AT 11.23	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	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	✓	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS18
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	VR64
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, VS18

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, November 21, 2012 10:18:50
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1312
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	6868.3	6868.296	42.905	0.6	Standard
	Mg	24.0	39593.2	39593.235	133.455	0.3	Standard
	In	114.9	81803.9	81803.890	323.383	0.4	Standard
	Pb	208.0	33903.2	33903.229	253.718	0.7	Standard
	U	238.1	62080.5	62080.455	388.240	0.6	Standard
⌈	CeO	155.9	1301.8	0.018	0.001	7.8	Standard
| >	Ce	139.9	70830.9	70830.890	440.887	0.6	Standard
⌊	Ce++	70.0	1229.4	0.017	0.000	2.6	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
1250.00	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

VS18 : 00225

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: 11/21/2012 10:18:48 AM
nd Time: 11/21/2012 10:21:23 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 6868.30
Obtained Intensity (Mg 23.985): 39593.24
Obtained Intensity (In 114.904): 81803.89
Obtained Intensity (Pb 207.977): 33903.23
Obtained Intensity (U 238.05): 62080.45
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.018 (=1301.84 / 70830.89)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.017 (=1229.36 / 70830.89)

SmartTune Wizard - Summary

ptimization Summary

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

tart Time: 11/21/2012 9:52:01 AM
nd Time: 11/21/2012 9:53:45 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.56 mm	0.60 mm	75492.40

SmartTune Wizard - Summary

Optimization Summary

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

Start Time: 11/21/2012 9:58:49 AM
End Time: 11/21/2012 10:01:02 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.686)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.713)

SmartTune Wizard - Summary

ptimization Summary

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

tart Time: 11/21/2012 10:01:50 AM
nd Time: 11/21/2012 10:06:02 AM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.46

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:12:21
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1776651	3
	Be	9		ug/L				12	16
	C	13		ug/L				162544	2
	Cl	37		ug/L				5197829	0
>	Sc	45		ug/L				1160558	1
	V	51		ug/L				9051	3
	V-1	51		ug/L				176	10
	Cr	52		ug/L				26831	2
	Cr	53		ug/L				193	9
	Mn	55		ug/L				507	9
	Co	59		ug/L				104	11
>	Ge	72		ug/L				627564	0
	Ni	60		ug/L				31	6
	Ni	62		ug/L				96	3
	Cu	63		ug/L				156	8
	Cu	65		ug/L				40	14
	Zn	66		ug/L				238	2
	Zn	67		ug/L				34	18
	Zn	68		ug/L				277	2
	As	75		ug/L				199	3
	As-1	75		ug/L				9984	0
	Se	82		ug/L				-4	357
	Se	78		ug/L				10195	0
	Mo	98		ug/L				52	11
	Y	89		ug/L				415847	0
	Kr	83		ug/L				575	7
>	In	115		ug/L				1214777	0
	Ag	107		ug/L				30	8
	Cd	111		ug/L				92	16
	Cd	114		ug/L				57	45
	Sb	121		ug/L				341	25
	Sb	123		ug/L				251	23
	Ba	135		ug/L				21	37
	Ba	137		ug/L				36	32
>	Tb	159		ug/L				1265870	1
	Tl	205		ug/L				327	34
	Pb	208		ug/L				254	27
	Bi	209		ug/L				3311562	0
	Th	232		ug/L				1377	9
	U	238		ug/L				55	95

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:16:29
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1811398	0
	Be	9	0.200	ug/L	0.008	4	12	1122	3
	C	13		ug/L			162544	158528	1
	Cl	37		ug/L			5197829	5207096	1
>	Sc	45		ug/L			1160558	1181297	0
	V	51	0.200	ug/L	0.019	9	9051	13187	2
	V-1	51	0.200	ug/L	0.004	1	176	4735	1
	Cr	52	0.500	ug/L	0.044	8	26831	35257	1
	Cr	53	0.500	ug/L	0.018	3	193	1281	2
	Mn	55	0.500	ug/L	0.018	3	507	13068	3
	Co	59	0.200	ug/L	0.005	2	104	3815	1
>	Ge	72		ug/L			627564	632610	2
	Ni	60	0.500	ug/L	0.010	1	31	2174	2
	Ni	62	0.500	ug/L	0.016	3	96	407	2
	Cu	63	0.500	ug/L	0.016	3	156	4651	1
	Cu	65	0.500	ug/L	0.018	3	40	2155	1
	Zn	66	4.000	ug/L	0.156	3	238	11560	1
	Zn	67	4.000	ug/L	0.153	3	34	1736	1
	Zn	68	4.000	ug/L	0.061	1	277	7935	2
	As	75	0.200	ug/L	0.002	1	199	657	2
	As-1	75	0.200	ug/L	0.098	49	9984	10528	0
	Se	82	0.500	ug/L	0.034	6	-4	133	9
	Se	78	0.500	ug/L	0.327	65	10195	10627	0
	Mo	98	0.200	ug/L	0.002	0	52	1174	1
	Y	89		ug/L			415847	416352	2
	Kr	83		ug/L			575	569	2
>	In	115		ug/L			1214777	1237463	0
	Ag	107	0.200	ug/L	0.004	1	30	3031	1
	Cd	111	0.100	ug/L	0.006	6	92	722	4
	Cd	114	0.100	ug/L	0.001	1	57	1603	0
	Sb	121	0.200	ug/L	0.008	4	341	3660	3
	Sb	123	0.200	ug/L	0.012	5	251	2768	4
	Ba	135	0.500	ug/L	0.011	2	21	2594	2
	Ba	137	0.500	ug/L	0.006	1	36	4451	0
>	Tb	159		ug/L			1265870	1277468	0
	Tl	205	0.200	ug/L	0.004	1	327	8978	1
	Pb	208	0.100	ug/L	0.002	2	254	6572	1
	Bi	209		ug/L			3311562	3381825	0
	Th	232	0.200	ug/L	0.007	3	1377	9816	2
	U	238	0.200	ug/L	0.001	0	55	11162	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:20:39
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1852380	0
	Be	9	10.000	ug/L	0.136	1	12	54843	1
	C	13		ug/L			162544	166349	1
	Cl	37		ug/L			5197829	5431927	3
>	Sc	45		ug/L			1160558	1218532	2
	V	51	10.000	ug/L	0.124	1	9051	236487	1
	V-1	51	10.000	ug/L	0.121	1	176	230796	1
	Cr	52	10.003	ug/L	0.348	3	26831	211931	0
	Cr	53	10.000	ug/L	0.339	3	193	22128	1
	Mn	55	10.000	ug/L	0.175	1	507	259574	1
	Co	59	10.000	ug/L	0.117	1	104	191112	3
>	Ge	72		ug/L			627564	648163	0
	Ni	60	9.998	ug/L	0.219	2	31	40184	1
	Ni	62	9.997	ug/L	0.100	0	96	5872	0
	Cu	63	10.000	ug/L	0.341	3	156	90613	2
	Cu	65	9.999	ug/L	0.040	0	40	41527	1
	Zn	66	9.807	ug/L	0.130	1	238	25637	1
	Zn	67	10.016	ug/L	0.164	1	34	4447	0
	Zn	68	9.945	ug/L	0.371	3	277	19138	3
	As	75	10.000	ug/L	0.142	1	199	22953	0
	As-1	75	10.000	ug/L	0.214	2	9984	32811	0
	Se	82	9.999	ug/L	0.049	0	-4	2670	0
	Se	78	9.997	ug/L	0.324	3	10195	17054	0
	Mo	98	10.000	ug/L	0.092	0	52	56014	1
	Y	89		ug/L			415847	435163	2
	Kr	83		ug/L			575	566	6
>	In	115		ug/L			1214777	1254608	1
	Ag	107	10.000	ug/L	0.087	0	30	150030	1
	Cd	111	10.000	ug/L	0.162	1	92	63705	1
	Cd	114	10.000	ug/L	0.095	0	57	157397	1
	Sb	121	10.000	ug/L	0.233	2	341	184271	0
	Sb	123	10.000	ug/L	0.115	1	251	139507	0
	Ba	135	10.000	ug/L	0.271	2	21	52237	1
	Ba	137	10.000	ug/L	0.193	1	36	89301	0
>	Tb	159		ug/L			1265870	1317605.	1
	Tl	205	10.000	ug/L	0.161	1	327	442164	0
	Pb	208	10.000	ug/L	0.100	0	254	585237	0
	Bi	209		ug/L			3311562	3421080	0
	Th	232	10.001	ug/L	0.138	1	1377	525844	1
	U	238	10.000	ug/L	0.103	1	55	572315	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:25:01
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1872021 ✓	1
	Be	9	20.010	ug/L	0.054	0	12	111109	1
	C	13		ug/L			162544	165426	2
	Cl	37		ug/L			5197829	5354160	0
>	Sc	45		ug/L			1160558	1218684 ✓	1
	V	51	19.966	ug/L	0.313	1	9051	459834	2
	V-1	51	19.906	ug/L	0.221	1	176	450894	2
	Cr	52	20.212	ug/L	0.330	1	26831	416082	0
	Cr	53	20.008	ug/L	0.601	3	193	44158	1
	Mn	55	20.068	ug/L	0.779	3	507	527468	2
	Co	59	20.021	ug/L	0.508	2	104	384175	3
>	Ge	72		ug/L			627564	647441 ✓	0
	Ni	60	19.966	ug/L	0.396	1	31	79593	1
	Ni	62	19.890	ug/L	0.520	2	96	11325	2
	Cu	63	19.907	ug/L	0.617	3	156	176793	3
	Cu	65	19.968	ug/L	0.615	3	40	82270	2
	Zn	66	19.979	ug/L	0.322	1	238	51729	1
	Zn	67	19.902	ug/L	0.498	2	34	8646	2
	Zn	68	19.904	ug/L	0.272	1	277	37364	1
	As	75	19.956	ug/L	0.129	0	199	45153	0
	As-1	75	19.927	ug/L	0.101	0	9984	54451	0
	Se	82	20.020	ug/L	0.282	1	-4	5367	1
	Se	78	19.940	ug/L	0.146	0	10195	23365	0
	Mo	98	19.937	ug/L	0.147	0	52	110119	0
	Y	89		ug/L			415847	435431	1
	Kr	83		ug/L			575	591	5
>	In	115		ug/L			1214777	1266633 ✓	0
	Ag	107	19.913	ug/L	0.541	2	30	296451	2
	Cd	111	19.862	ug/L	0.182	0	92	124250	0
	Cd	114	19.873	ug/L	0.032	0	57	307911	0
	Sb	121	19.984	ug/L	0.348	1	341	370283	1
	Sb	123	19.937	ug/L	0.053	0	251	277065	0
	Ba	135	19.905	ug/L	0.131	0	21	103036	0
	Ba	137	19.945	ug/L	0.451	2	36	177866	1
>	Tb	159		ug/L			1265870	1315008 ✓	0
	Tl	205	19.963	ug/L	0.248	1	327	874300	1
	Pb	208	19.955	ug/L	0.101	0	254	1155097	0
	Bi	209		ug/L			3311562	3404285	0
	Th	232	20.046	ug/L	0.204	1	1377	1060385	0
	U	238	20.003	ug/L	0.295	1	55	1143257	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:29:34
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1880953✓	1
[	Be	9	49.756	ug/L	0.517	1	12	270953	1
	C	13		ug/L			162544	164185	2
	Cl	37		ug/L			5197829	5694851	1
[>	Sc	45		ug/L			1160558	1218980✓	1
[	V	51	49.958	ug/L	1.072	2	9051	1131581	0
[	V-1	51	49.980	ug/L	0.724	1	176	1129763	0
[	Cr	52	49.756	ug/L	0.797	1	26831	960598	0
[	Cr	53	49.834	ug/L	0.384	0	193	107966	2
[	Mn	55	49.652	ug/L	0.799	1	507	1261450	2
[	Co	59	49.550	ug/L	0.650	1	104	909786	1
[>	Ge	72		ug/L			627564	650636✓	1
[	Ni	60	49.730	ug/L	0.240	0	31	193951	1
[	Ni	62	49.691	ug/L	1.596	3	96	27429	1
[	Cu	63	49.640	ug/L	1.486	2	156	427278	2
[	Cu	65	49.325	ug/L	1.067	2	40	191248	0
[	Zn	66	49.469	ug/L	0.921	1	238	122064	0
[	Zn	67	49.535	ug/L	1.004	2	34	20650	3
[	Zn	68	49.532	ug/L	1.554	3	277	88966	1
[	As	75	49.658	ug/L	0.511	1	199	108885	0
[	As-1	75	49.739	ug/L	0.201	0	9984	118277	1
[	Se	82	49.509	ug/L	1.525	3	-4	12718	1
[	Se	78	49.786	ug/L	0.511	1	10195	42127	0
[	Mo	98	49.785	ug/L	0.777	1	52	270402	0
	Y	89		ug/L			415847	436399	0
	Kr	83		ug/L			575	587	6
[>	In	115		ug/L			1214777	1235518✓	0
[	Ag	107	49.917	ug/L	0.970	1	30	718860	2
[	Cd	111	49.780	ug/L	0.709	1	92	297084	1
[	Cd	114	49.858	ug/L	0.466	0	57	742839	0
[	Sb	121	49.801	ug/L	0.377	0	341	882047	1
[	Sb	123	49.904	ug/L	0.610	1	251	669620	0
[	Ba	135	49.977	ug/L	0.384	0	21	251739	0
[	Ba	137	50.026	ug/L	0.722	1	36	436230	0
[>	Tb	159		ug/L			1265870	1326403✓	2
[	Tl	205	50.550	ug/L	0.952	1	327	2361934	0
[	Pb	208	49.593	ug/L	0.504	1	254	2781443	1
[	Bi	209		ug/L			3311562	3286005	1
[	Th	232	50.654	ug/L	1.368	2	1377	2888222	0
[	U	238	50.525	ug/L	1.054	2	55	3073318	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:35:46
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1771598 ✓	3
	Be	9	100.583	ug/L	3.253	3	12	525736	0
	C	13		ug/L			162544	168618	3
	Cl	37		ug/L			5197829	5630536	2
>	Sc	45		ug/L			1160558	1171494 ✓	1
	V	51	101.891	ug/L	0.717	0	9051	2356753	0
	V-1	51	101.717	ug/L	0.386	0	176	2343792	1
	Cr	52	100.645	ug/L	1.049	1	26831	1879664	1
	Cr	53	100.027	ug/L	0.630	0	193	208257	2
	Mn	55	102.482	ug/L	3.307	3	507	2726068	1
	Co	59	100.720	ug/L	3.267	3	104	1820558	2
>	Ge	72		ug/L			627564	611444 ✓	0
	Ni	60	101.022	ug/L	1.911	1	31	383294	2
	Ni	62	100.079	ug/L	2.008	2	96	51970	1
	Cu	63	101.000	ug/L	2.285	2	156	845261	3
	Cu	65	100.557	ug/L	1.923	1	40	373325	1
	Zn	66	99.835	ug/L	2.369	2	238	230019	1
	Zn	67	100.618	ug/L	1.960	1	34	40200	1
	Zn	68	100.672	ug/L	1.942	1	277	173558	2
	As	75	100.652	ug/L	0.474	0	199	211815	0
	As-1	75	100.813	ug/L	0.234	0	9984	221031	0
	Se	82	100.280	ug/L	0.367	0	-4	24449	0
	Se	78	100.850	ug/L	0.460	0	10195	71766	1
	Mo	98	101.679	ug/L	1.260	1	52	549803	1
	Y	89		ug/L			415847	420750	2
	Kr	83		ug/L			575	616	3
>	In	115		ug/L			1214777	1202655 ✓	1
	Ag	107	99.672	ug/L	1.833	1	30	1382085	2
	Cd	111	100.070	ug/L	1.262	1	92	582539	0
	Cd	114	100.048	ug/L	0.989	0	57	1453201	0
	Sb	121	100.319	ug/L	1.176	1	341	1747649	0
	Sb	123	100.193	ug/L	1.386	1	251	1316827	0
	Ba	135	100.748	ug/L	1.564	1	21	506540	0
	Ba	137	100.711	ug/L	1.437	1	36	875562	1
>	Tb	159		ug/L			1265870	1322738 ✓	0
	Tl	205	99.858	ug/L	0.664	0	327	4631788	0
	Pb	208	101.026	ug/L	0.620	0	254	5850966	0
	Bi	209		ug/L			3311562	3188992	0
	Th	232	100.144	ug/L	0.770	0	1377	5722327	0
	U	238	100.078	ug/L	0.795	0	55	6088028	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:42:40
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1742711 ✓	1
	Be	9	0.000	ug/L	0.001	237	12	13	28
	C	13		ug/L			162544	162172	3
	Cl	37		ug/L			5197829	5466418	3
>	Sc	45		ug/L			1160558	1159477 ✓	1
	V	51	-0.004	ug/L	0.013	297	9051	8942	3
	V-1	51	-0.003	ug/L	0.000	9	176	110	5
	Cr	52	-0.019	ug/L	0.049	257	26831	26457	3
	Cr	53	-0.014	ug/L	0.005	38	193	165	7
	Mn	55	-0.001	ug/L	0.001	87	507	491	4
	Co	59	0.000	ug/L	0.001	1694	104	105	12
>	Ge	72		ug/L			627564	609738 ✓	1
	Ni	60	0.001	ug/L	0.002	208	31	33	18
	Ni	62	0.016	ug/L	0.007	42	96	102	2
	Cu	63	0.003	ug/L	0.002	68	156	180	10
	Cu	65	0.001	ug/L	0.001	83	40	44	10
	Zn	66	-0.006	ug/L	0.006	116	238	218	6
	Zn	67	0.029	ug/L	0.004	12	34	45	3
	Zn	68	0.006	ug/L	0.007	107	277	280	3
	As	75	0.009	ug/L	0.003	31	199	213	2
	As-1	75	0.184	ug/L	0.101	54	9984	10085	1
	Se	82	-0.013	ug/L	0.045	346	-4	-7	142
	Se	78	0.610	ug/L	0.357	58	10195	10277	1
	Mo	98	0.009	ug/L	0.001	13	52	102	7
	Y	89		ug/L			415847	419072	3
	Kr	83		ug/L			575	579	6
>	In	115		ug/L			1214777	1174987 ✓	0
	Ag	107	0.002	ug/L	0.000	23	30	54	10
	Cd	111	0.002	ug/L	0.002	82	92	101	10
	Cd	114	-0.000	ug/L	0.001	876	57	54	14
	Sb	121	0.088	ug/L	0.012	13	341	1830	11
	Sb	123	0.088	ug/L	0.012	14	251	1371	11
	Ba	135	-0.001	ug/L	0.001	157	21	16	34
	Ba	137	-0.001	ug/L	0.001	149	36	30	21
>	Tb	159		ug/L			1265870	1208561 ✓	0
	Tl	205	0.014	ug/L	0.011	74	327	916	48
	Pb	208	-0.000	ug/L	0.000	122	254	221	11
	Bi	209		ug/L			3311562	3256846	0
	Th	232	0.128	ug/L	0.011	9	1377	7973	6
	U	238	0.002	ug/L	0.000	7	55	173	5

Sample Information

Sample Date/Time: Wednesday, November 21, 2012 13:42:40
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\112112.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	**0.9994**	0.020	0.20	10	20	50	100
V-1	51	**0.9995**	0.020	0.20	10	20	50	100
Cr	52	**0.9999**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9990**	0.023	0.50	10	20	50	100
Co	59	**0.9999**	0.015	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9998**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9998**	0.014	0.50	10	20	50	100
Cu	65	**0.9998**	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	**0.9999**	0.003	0.20	10	20	50	100
As-1	75	**0.9999**	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	**0.9995**	0.009	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	**1.0000**	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	**0.9999**	0.004	0.50	10	20	50	100
Ba	137	**0.9999**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.035	0.20	10	20	50	100
Pb	208	**0.9998**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	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: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:50:52
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1853050 ✓	2
[	Be	9	50.651	ug/L	1.759	3	12	277008	1
	C	13		ug/L			162544	169140	3
	Cl	37		ug/L			5197829	5618237	1
[>	Sc	45		ug/L			1160558	1230636 ✓	0
	V	51	48.002	ug/L	0.765	1	9051	1171560	2
	V-1	51	47.996	ug/L	0.940	1	176	1161909	2
	Cr	52	49.848	ug/L	0.222	0	26831	992414	1
	Cr	53	49.824	ug/L	2.000	4	193	109056	3
	Mn	55	47.101	ug/L	1.962	4	507	1316967	4
[	Co	59	49.787	ug/L	2.169	4	104	945547	4
[>	Ge	72		ug/L			627564	638717 ✓	1
	Ni	60	50.695	ug/L	0.602	1	31	200912	0
	Ni	62	52.493	ug/L	1.893	3	96	28513	2
	Cu	63	50.666	ug/L	0.507	1	156	443009	2
	Cu	65	50.820	ug/L	1.098	2	40	197120	2
	Zn	66	49.971	ug/L	0.499	0	238	120394	0
	Zn	67	50.441	ug/L	2.995	5	34	21064	5
	Zn	68	49.591	ug/L	0.721	1	277	89444	1
	As	75	50.478	ug/L	1.479	2	199	111036	1
	As-1	75	50.219	ug/L	1.409	2	9984	120086	1
	Se	82	78.879	ug/L	1.961	2	-4	20083	0
	Se	78	78.285	ug/L	1.909	2	10195	60502	0
[	Mo	98	48.757	ug/L	1.450	2	52	275346	1
	Y	89		ug/L			415847	435783	1
	Kr	83		ug/L			575	603	4
[>	In	115		ug/L			1214777	1237012 ✓	1
	Ag	107	51.050	ug/L	1.634	3	30	727874	1
	Cd	111	49.671	ug/L	0.801	1	92	297454	1
	Cd	114	49.585	ug/L	0.893	1	57	740769	0
	Sb	121	48.941	ug/L	0.864	1	341	877061	0
	Sb	123	49.360	ug/L	0.876	1	251	667345	0
	Ba	135	50.336	ug/L	0.774	1	21	260315	0
[	Ba	137	49.864	ug/L	0.535	1	36	445952	2
[>	Tb	159		ug/L			1265870	1316053 ✓	0
	Tl	205	52.627	ug/L	0.045	0	327	2428910	0
	Pb	208	49.532	ug/L	0.172	0	254	2854367	0
	Bi	209		ug/L			3311562	3262144	0
	Th	232	52.902	ug/L	0.939	1	1377	3008293	1
[	U	238	52.977	ug/L	0.600	1	55	3206439	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 13:57:44
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1745925 ✓	2
[	Be	9	0.000	ug/L	0.000	162	12	13	17
	C	13		ug/L			162544	162169	3
	Cl	37		ug/L			5197829	5522676	3
[>	Sc	45		ug/L			1160558	1184719 ✓	0
[	V	51	-0.010	ug/L	0.027	270	9051	9002	6
[	V-1	51	-0.003	ug/L	0.000	15	176	115	9
[	Cr	52	-0.040	ug/L	0.103	256	26831	26629	6
[	Cr	53	-0.014	ug/L	0.012	85	193	167	15
[	Mn	55	-0.000	ug/L	0.001	305	507	507	6
[	Co	59	-0.000	ug/L	0.001	340	104	102	14
[>	Ge	72		ug/L			627564	615142 ✓	1
[	Ni	60	0.001	ug/L	0.001	82	31	33	8
[	Ni	62	-0.005	ug/L	0.006	114	96	92	2
[	Cu	63	0.000	ug/L	0.001	4474	156	153	3
[	Cu	65	0.001	ug/L	0.002	184	40	43	17
[	Zn	66	-0.001	ug/L	0.009	925	238	231	8
[	Zn	67	0.025	ug/L	0.013	53	34	44	12
[	Zn	68	0.012	ug/L	0.001	7	277	293	1
[	As	75	0.021	ug/L	0.014	68	199	239	12
[	As-1	75	0.220	ug/L	0.062	28	9984	10249	1
[	Se	82	0.066	ug/L	0.054	81	-4	11	112
[	Se	78	0.740	ug/L	0.180	24	10195	10449	0
[	Mo	98	0.005	ug/L	0.003	68	52	78	22
	Y	89		ug/L			415847	425573	3
	Kr	83		ug/L			575	561	5
[>	In	115		ug/L			1214777	1184909 ✓	0
[	Ag	107	0.002	ug/L	0.002	81	30	60	41
[	Cd	111	0.004	ug/L	0.002	62	92	110	11
[	Cd	114	0.001	ug/L	0.002	278	57	67	46
[	Sb	121	0.025	ug/L	0.011	43	341	764	23
[	Sb	123	0.024	ug/L	0.012	49	251	552	26
[	Ba	135	0.000	ug/L	0.001	1315	21	21	33
[	Ba	137	-0.000	ug/L	0.000	913	36	34	10
[>	Tb	159		ug/L			1265870	1248325 ✓	0
[	Tl	205	0.002	ug/L	0.004	186	327	408	39
[	Pb	208	-0.000	ug/L	0.000	81	254	228	7
[	Bi	209		ug/L			3311562	3289807	0
[	Th	232	0.072	ug/L	0.007	10	1377	5266	7
[	U	238	0.002	ug/L	0.000	30	55	144	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:01:52
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1765349 ✓	1
	Be	9	51.409	ug/L	1.250	2	12	268021	3
	C	13		ug/L			162544	164661	1
	Cl	37		ug/L			5197829	5589525	2
>	Sc	45		ug/L			1160558	1229502 ✓	0
	V	51	47.311	ug/L	1.077	2	9051	1153664	1
	V-1	51	47.381	ug/L	0.972	2	176	1145909	1
	Cr	52	48.456	ug/L	0.472	0	26831	964584	0
	Cr	53	48.703	ug/L	1.223	2	193	106518	2
	Mn	55	45:856	ug/L	0.203	0	507	1280933	0
	Co	59	48.183	ug/L	0.246	0	104	914282	0
>	Ge	72		ug/L			627564	648787 ✓	1
	Ni	60	48.605	ug/L	0.588	1	31	195663	0
	Ni	62	49.970	ug/L	0.878	1	96	27580	0
	Cu	63	49.185	ug/L	1.007	2	156	436877	3
	Cu	65	49.158	ug/L	0.673	1	40	193672	1
	Zn	66	49.393	ug/L	1.003	2	238	120872	0
	Zn	67	50.304	ug/L	0.805	1	34	21342	1
	Zn	68	49.424	ug/L	1.490	3	277	90531	1
	As	75	48.680	ug/L	1.199	2	199	108783	0
	As-1	75	48.511	ug/L	0.914	1	9984	118192	0
	Se	82	49.272	ug/L	1.170	2	-4	12741	0
	Se	78	48.673	ug/L	0.403	0	10195	42202	1
	Mo	98	46.479	ug/L	0.318	0	52	266712	2
	Y	89		ug/L			415847	425697	1
	Kr	83		ug/L			575	589	5
>	In	115		ug/L			1214777	1208068 ✓	0
	Ag	107	48.313	ug/L	0.612	1	30	672907	0
	Cd	111	50.259	ug/L	0.772	1	92	293942	1
	Cd	114	50.625	ug/L	0.599	1	57	738671	0
	Sb	121	50.151	ug/L	0.202	0	341	877838	0
	Sb	123	49.610	ug/L	0.812	1	251	655078	0
	Ba	135	49.002	ug/L	0.323	0	21	247513	0
	Ba	137	49.469	ug/L	0.307	0	36	432047	0
>	Tb	159		ug/L			1265870	1301768 ✓	0
	Tl	205	51.018	ug/L	0.875	1	327	2328833	0
	Pb	208	48.038	ug/L	0.466	0	254	2738042	0
	Bi	209		ug/L			3311562	3254771	0
	Th	232	51.511	ug/L	0.613	1	1377	2897280	0
	U	238	51.443	ug/L	0.422	0	55	3079762	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:08:25
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1754685	1
[	Be	9	0.002	ug/L	0.001	79	12	21	36
	C	13		ug/L			162544	164124	2
	Cl	37		ug/L			5197829	5519217	2
[>	Sc	45		ug/L			1160558	1185443	0
[	V	51	0.001	ug/L	0.012	1493	9051	9262	2
[	V-1	51	-0.002	ug/L	0.002	75	176	130	29
[	Cr	52	-0.006	ug/L	0.040	698	26831	27297	2
[	Cr	53	-0.016	ug/L	0.004	24	193	164	5
[	Mn	55	-0.000	ug/L	0.000	147	507	509	2
[	Co	59	0.000	ug/L	0.001	447	104	112	22
[>	Ge	72		ug/L			627564	617342	1
[	Ni	60	0.000	ug/L	0.001	446	31	31	15
[	Ni	62	0.018	ug/L	0.043	237	96	104	20
[	Cu	63	0.000	ug/L	0.002	2536	156	154	10
[	Cu	65	0.002	ug/L	0.003	182	40	46	24
[	Zn	66	-0.002	ug/L	0.012	502	238	229	12
[	Zn	67	0.018	ug/L	0.004	23	34	41	2
[	Zn	68	0.008	ug/L	0.007	81	277	287	3
[	As	75	0.012	ug/L	0.007	55	199	222	7
[	As-1	75	0.190	ug/L	0.043	22	9984	10224	0
[	Se	82	0.028	ug/L	0.008	29	-4	2	85
[	Se	78	0.628	ug/L	0.178	28	10195	10417	0
[	Mo	98	0.005	ug/L	0.001	18	52	77	5
	Y	89		ug/L			415847	423461	1
	Kr	83		ug/L			575	560	4
[>	In	115		ug/L			1214777	1181409	0
[	Ag	107	0.001	ug/L	0.000	7	30	47	2
[	Cd	111	-0.000	ug/L	0.002	3153	92	89	9
[	Cd	114	-0.001	ug/L	0.000	44	57	47	7
[	Sb	121	0.054	ug/L	0.005	9	341	1252	6
[	Sb	123	0.051	ug/L	0.004	7	251	906	5
[	Ba	135	-0.001	ug/L	0.001	56	21	15	20
[	Ba	137	-0.001	ug/L	0.001	213	36	30	29
[>	Tb	159		ug/L			1265870	1213543	0
[	Tl	205	0.006	ug/L	0.006	86	327	586	40
[	Pb	208	0.001	ug/L	0.001	233	254	274	25
[	Bi	209		ug/L			3311562	3229318	0
[	Th	232	0.105	ug/L	0.008	7	1377	6797	5
[	U	238	0.002	ug/L	0.001	45	55	165	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:12:40
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1765954 ✓	2
[	Be	9	0.211	ug/L	0.009	4	12	1113	3
	C	13		ug/L			162544	165139	3
	Cl	37		ug/L			5197829	5370231	2
[>	Sc	45		ug/L			1160558	1175109 ✓	0
[	V	51	0.214	ug/L	0.020	9	9051	14108	3
[	V-1	51	0.203	ug/L	0.001	0	176	4875	0
[	Cr	52	0.555	ug/L	0.055	10	26831	37413	3
[	Cr	53	0.517	ug/L	0.019	3	193	1274	2
[	Mn	55	0.478	ug/L	0.031	6	507	13261	5
[	Co	59	0.213	ug/L	0.001	0	104	3964	0
[>	Ge	72		ug/L			627564	623574 ✓	1
[	Ni	60	0.509	ug/L	0.010	1	31	2001	1
[	Ni	62	0.539	ug/L	0.060	11	96	380	6
[	Cu	63	0.534	ug/L	0.014	2	156	4709	3
[	Cu	65	0.524	ug/L	0.017	3	40	2023	3
[	Zn	66	4.835	ug/L	0.039	0	238	11589	2
[	Zn	67	4.235	ug/L	0.024	0	34	1758	1
[	Zn	68	4.431	ug/L	0.091	2	277	8054	2
[	As	75	0.247	ug/L	0.025	10	199	726	5
[	As-1	75	0.404	ug/L	0.121	29	9984	10782	0
[	Se	82	0.568	ug/L	0.041	7	-4	136	8
[	Se	78	1.126	ug/L	0.341	30	10195	10832	0
[	Mo	98	0.191	ug/L	0.004	2	52	1104	1
	Y	89		ug/L			415847	422704	0
	Kr	83		ug/L			575	587	6
[>	In	115		ug/L			1214777	1183912 ✓	0
[	Ag	107	0.205	ug/L	0.002	1	30	2830	1
[	Cd	111	0.111	ug/L	0.003	2	92	728	1
[	Cd	114	0.109	ug/L	0.001	1	57	1619	1
[	Sb	121	0.203	ug/L	0.002	0	341	3810	0
[	Sb	123	0.208	ug/L	0.011	5	251	2937	4
[	Ba	135	0.494	ug/L	0.010	1	21	2467	2
[	Ba	137	0.500	ug/L	0.008	1	36	4318	1
[>	Tb	159		ug/L			1265870	1216572 ✓	2
[	Tl	205	0.203	ug/L	0.001	0	327	8982	2
[	Pb	208	0.112	ug/L	0.003	2	254	6195	1
[	Bi	209		ug/L			3311562	3254346	0
[	Th	232	0.196	ug/L	0.002	1	1377	11602	1
[	U	238	0.201	ug/L	0.003	1	55	11281	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:16:48
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1782250✓	0
[	Be	9	-0.000	ug/L	0.000	94	12	9	23
	C	13		ug/L			162544	283763	5
	Cl	37		ug/L			5197829	14953159	7
[>	Sc	45		ug/L			1160558	1205451✓	2
[	V	51	0.134	ug/L	0.013	10	9051	12575	2
[	V-1	51	0.861	ug/L	0.053	6	176	20584	4
[	Cr	52	0.574	ug/L	0.054	9	26831	38716	0
[	Cr	53	3.149	ug/L	0.168	5	193	6936	3
[	Mn	55	0.055	ug/L	0.002	4	507	2032	3
[	Co	59	0.026	ug/L	0.003	9	104	598	6
[>	Ge	72		ug/L			627564	618891✓	1
[	Ni	60	0.356	ug/L	0.020	5	31	1396	3
[	Ni	62	3.191	ug/L	0.374	11	96	1768	10
[	Cu	63	1.077	ug/L	0.048	4	156	9276	3
[	Cu	65	0.351	ug/L	0.029	8	40	1358	6
[	Zn	66	0.956	ug/L	0.014	1	238	2462	0
[	Zn	67	6.687	ug/L	0.121	1	34	2736	2
[	Zn	68	0.431	ug/L	0.015	3	277	1025	0
[	As	75	0.057	ug/L	0.044	77	199	318	31
[	As-1	75	0.297	ug/L	0.040	13	9984	10476	1
[	Se	82	-0.147	ug/L	0.034	23	-4	-40	19
[	Se	78	0.940	ug/L	0.227	24	10195	10636	0
[	Mo	98	431.050✓	ug/L	8.782	2	52	2358376	0
	Y	89		ug/L			415847	430708	1
	Kr	83		ug/L			575	779	2
[>	In	115		ug/L			1214777	1209127✓	1
[	Ag	107	0.018	ug/L	0.001	7	30	283	8
[	Cd	111	0.134	ug/L	0.002	1	92	873	2
[	Cd	114	0.251	ug/L	0.004	1	57	3715	0
[	Sb	121	0.058	ug/L	0.005	8	341	1358	8
[	Sb	123	0.057	ug/L	0.003	5	251	1006	5
[	Ba	135	0.047	ug/L	0.002	3	21	256	3
[	Ba	137	0.043	ug/L	0.002	4	36	410	2
[>	Tb	159		ug/L			1265870	1348142✓	1
[	Tl	205	0.038	ug/L	0.003	9	327	2130	9
[	Pb	208	0.031	ug/L	0.000	0	254	2112	1
[	Bi	209		ug/L			3311562	3071328	0
[	Th	232	0.199	ug/L	0.079	39	1377	13019	33
[	U	238	0.000	ug/L	0.000	89	55	66	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:23:20
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1807548 ✓	1
[	Be	9	-0.000	ug/L	0.000	838	12	12	16
	C	13		ug/L			162544	287400	0
	Cl	37		ug/L			5197829	15338762	3
[>	Sc	45		ug/L			1160558	1213399 ✓	0
[	V	51	-0.016	ug/L	0.110	702	9051	9090	29
[	V-1	51	0.845	ug/L	0.025	2	176	20349	2
[	Cr	52	20.416	ug/L	0.311	1	26831	417316	1
[	Cr	53	23.467	ug/L	0.736	3	193	50757	3
[	Mn	55	18.454	ug/L	0.557	3	507	509036	2
[	Co	59	19.706	ug/L	0.208	1	104	369112	1
[>	Ge	72		ug/L			627564	618795 ✓	0
[	Ni	60	20.190	ug/L	0.372	1	31	77549	2
[	Ni	62	23.815	ug/L	0.782	3	96	12589	3
[	Cu	63	20.459	ug/L	0.378	1	156	173366	1
[	Cu	65	20.507	ug/L	0.310	1	40	77086	0
[	Zn	66	20.326	ug/L	0.289	1	238	47585	1
[	Zn	67	23.639	ug/L	0.455	1	34	9584	1
[	Zn	68	17.969	ug/L	0.395	2	277	31576	2
[	As	75	19.513	ug/L	0.052	0	199	41717	0
[	As-1	75	19.792	ug/L	0.077	0	9984	51826	0
[	Se	82	-0.178	ug/L	0.052	29	-4	-48	26
[	Se	78	0.848	ug/L	0.151	17	10195	10578	0
[	Mo	98	429.129 ✓	ug/L	7.916	1	52	2347880	1
	Y	89		ug/L			415847	420298	1
	Kr	83		ug/L			575	793	2
[>	In	115		ug/L			1214777	1230437 ✓	1
[	Ag	107	19.232	ug/L	0.294	1	30	272879	2
[	Cd	111	19.483	ug/L	0.222	1	92	116115	1
[	Cd	114	19.913	ug/L	0.531	2	57	295914	1
[	Sb	121	0.054	ug/L	0.005	8	341	1309	6
[	Sb	123	0.053	ug/L	0.001	2	251	971	1
[	Ba	135	0.052	ug/L	0.003	4	21	286	4
[	Ba	137	0.043	ug/L	0.001	2	36	418	2
[>	Tb	159		ug/L			1265870	1373392 ✓	0
[	Tl	205	0.026	ug/L	0.002	6	327	1596	5
[	Pb	208	0.031	ug/L	0.001	2	254	2110	2
[	Bi	209		ug/L			3311562	3127685	1
[	Th	232	0.064	ug/L	0.015	23	1377	5307	16
[	U	238	-0.000	ug/L	0.000	8	55	32	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:30:11
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1737319 ✓	2
	Be	9	189.683	ug/L	4.324	2	12	972877	2
	C	13		ug/L			162544	155665	0
	Cl	37		ug/L			5197829	5495231	3
>	Sc	45		ug/L			1160558	1139452 ✓	4
	V	51	201.399	ug/L	7.268	3	9051	4517490	1
	V-1	51	197.079	ug/L	9.418	4	176	4410477	0
	Cr	52	211.719	ug/L	3.701	1	26831	3815820	3
	Cr	53	196.418	ug/L	10.057	5	193	396965	1
	Mn	55	198.661	ug/L	8.802	4	507	5134704	1
	Co	59	210.796	ug/L	11.025	5	104	3702775	4
>	Ge	72		ug/L			627564	574552 ✓	1
	Ni	60	194.475	ug/L	2.369	1	31	693214	0
	Ni	62	204.199	ug/L	2.281	1	96	99545	0
	Cu	63	195.244	ug/L	0.514	0	156	1535128	1
	Cu	65	198.660	ug/L	2.685	1	40	693073	1
	Zn	66	197.638	ug/L	2.869	1	238	427746	2
	Zn	67	193.147	ug/L	7.130	3	34	72463	2
	Zn	68	191.306	ug/L	3.175	1	277	309732	3
	As	75	199.454	ug/L	1.360	0	199	394271	2
	As-1	75	201.323	ug/L	1.714	0	9984	405689	2
	Se	82	192.794	ug/L	1.798	0	-4	44174	2
	Se	78	199.237	ug/L	1.471	0	10195	124124	2
	Mo	98	199.899	ug/L	3.491	1	52	1015505	1
	Y	89		ug/L			415847	393430	0
	Kr	83		ug/L			575	700	3
>	In	115		ug/L			1214777	1176925 ✓	0
	Ag	107	199.956	ug/L	4.390	2	30	2713278	2
	Cd	111	195.868	ug/L	1.678	0	92	1115797	0
	Cd	114	220.206	ug/L	3.333	1	57	3130046	1
	Sb	121	220.297	ug/L	2.730	1	341	3755620	1
	Sb	123	221.147	ug/L	2.207	0	251	2844242	0
	Ba	135	211.007	ug/L	2.199	1	21	1038260	0
	Ba	137	210.359	ug/L	2.691	1	36	1789774	1
>	Tb	159		ug/L			1265870	1344550 ✓	1
	Tl	205	196.367	ug/L	1.341	0	327	9257743	0
	Pb	208	207.443	ug/L	2.725	1	254	12210742	0
	Bi	209		ug/L			3311562	3077065	0
	Th	232	194.627	ug/L	3.127	1	1377	11301811	0
	U	238	190.290	ug/L	4.729	2	55	11764390	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:37:03
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1404904 ✓	0
	Be	9	279.860	ug/L	2.914	1	12	1160918	1
	C	13		ug/L			162544	134048	1
	Cl	37		ug/L			5197829	5019889	2
>	Sc	45		ug/L			1160558	912557 ✓	2
	V	51	315.516	ug/L	5.684	1	9051	5669112	0
	V-1	51	311.408	ug/L	5.641	1	176	5588118	0
	Cr	52	326.659	ug/L	6.656	2	26831	4704018	0
	Cr	53	312.104	ug/L	9.770	3	193	505652	1
	Mn	55	308.287	ug/L	7.440	2	507	6387298	0
	Co	59	343.621	ug/L	3.210	0	104	4838561	1
>	Ge	72		ug/L			627564	499425 ✓	0
	Ni	60	296.758	ug/L	4.508	1	31	919540	1
	Ni	62	309.322	ug/L	3.889	1	96	131036	0
	Cu	63	326.191	ug/L	2.285	0	156	2229137	0
	Cu	65	301.284	ug/L	3.380	1	40	913666	1
	Zn	66	291.805	ug/L	8.268	2	238	548820	2
	Zn	67	287.132	ug/L	0.926	0	34	93657	0
	Zn	68	284.350	ug/L	6.712	2	277	399955	1
	As	75	302.189	ug/L	6.794	2	199	519058	1
	As-1	75	305.097	ug/L	5.943	1	9984	530216	1
	Se	82	282.025	ug/L	5.252	1	-4	56164	0
	Se	78	291.988	ug/L	2.194	0	10195	154327	0
	Mo	98	319.382	ug/L	10.590	3	52	1410235	2
	Y	89		ug/L			415847	340182	0
	Kr	83		ug/L			575	715	4
>	In	115		ug/L			1214777	1043392 ✓	0
	Ag	107	320.912	ug/L	1.323	0	30	3860572	1
	Cd	111	290.849	ug/L	2.259	0	92	1468829	0
	Cd	114	320.990	ug/L	2.808	0	57	4045223	1
	Sb	121	334.719	ug/L	2.923	0	341	5058631	1
	Sb	123	335.079	ug/L	3.448	1	251	3820460	1
	Ba	135	316.383	ug/L	5.483	1	21	1380100	1
	Ba	137	349.790	ug/L	5.395	1	36	2638673	2
>	Tb	159		ug/L			1265870	1226254 ✓	0
	Tl	205	298.367	ug/L	0.644	0	327	12829417	0
	Pb	208	312.584	ug/L	0.260	0	254	16782756	0
	Bi	209		ug/L			3311562	2769163	0
	Th	232	294.812	ug/L	2.421	0	1377	15614865	0
	U	238	289.589	ug/L	0.653	0	55	16331574	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:43:55
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1422990	2
[	Be	9	0.003	ug/L	0.002	65	12	24	41
	C	13		ug/L			162544	136529	2
	Cl	37		ug/L			5197829	4827016	4
[>	Sc	45		ug/L			1160558	942952	0
|	V	51	0.017	ug/L	0.005	32	9051	7660	0
|	V-1	51	0.003	ug/L	0.001	39	176	203	11
|	Cr	52	0.064	ug/L	0.014	21	26831	22747	0
|	Cr	53	0.017	ug/L	0.005	27	193	185	4
|	Mn	55	0.013	ug/L	0.003	19	507	689	8
[	Co	59	0.002	ug/L	0.001	57	104	117	15
[>	Ge	72		ug/L			627564	544128	0
|	Ni	60	0.023	ug/L	0.001	5	31	106	4
|	Ni	62	0.419	ug/L	0.053	12	96	277	9
|	Cu	63	0.041	ug/L	0.008	18	156	440	13
|	Cu	65	0.020	ug/L	0.001	7	40	101	3
|	Zn	66	0.365	ug/L	0.018	4	238	954	3
|	Zn	67	0.333	ug/L	0.016	4	34	148	3
|	Zn	68	0.324	ug/L	0.019	5	277	736	3
|	As	75	0.050	ug/L	0.027	53	199	266	18
|	As-1	75	0.267	ug/L	0.096	36	9984	9154	1
|	Se	82	0.056	ug/L	0.034	60	-4	8	90
|	Se	78	0.806	ug/L	0.272	33	10195	9278	0
[	Mo	98	0.047	ug/L	0.006	12	52	273	10
	Y	89		ug/L			415847	365226	0
	Kr	83		ug/L			575	507	6
[>	In	115		ug/L			1214777	1093189	0
|	Ag	107	0.009	ug/L	0.006	65	30	142	53
|	Cd	111	0.008	ug/L	0.004	54	92	126	18
|	Cd	114	0.005	ug/L	0.004	77	57	119	44
|	Sb	121	0.326	ug/L	0.040	12	341	5466	11
|	Sb	123	0.320	ug/L	0.031	9	251	4043	8
|	Ba	135	0.009	ug/L	0.003	29	21	60	20
[	Ba	137	0.010	ug/L	0.002	25	36	108	17
[>	Tb	159		ug/L			1265870	1142802	0
|	Tl	205	0.041	ug/L	0.016	40	327	1921	34
|	Pb	208	0.010	ug/L	0.002	18	254	714	12
|	Bi	209		ug/L			3311562	3162279	1
|	Th	232	0.213	ug/L	0.003	1	1377	11760	1
[	U	238	0.008	ug/L	0.002	20	55	452	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:49:56
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1454654	1
	Be	9	0.002	ug/L	0.000	16	12	18	8
	C	13		ug/L			162544	136081	4
	Cl	37		ug/L			5197829	4912384	1
>	Sc	45		ug/L			1160558	937406	1
	V	51	0.014	ug/L	0.006	44	9051	7577	1
	V-1	51	0.000	ug/L	0.001	1085	176	143	8
	Cr	52	0.068	ug/L	0.022	31	26831	22677	1
	Cr	53	0.017	ug/L	0.004	25	193	185	3
	Mn	55	0.009	ug/L	0.001	10	507	594	2
	Co	59	0.002	ug/L	0.001	43	104	107	10
>	Ge	72		ug/L			627564	553087	2
	Ni	60	0.018	ug/L	0.002	13	31	90	11
	Ni	62	0.187	ug/L	0.022	12	96	172	6
	Cu	63	0.017	ug/L	0.001	3	156	270	0
	Cu	65	0.008	ug/L	0.002	28	40	63	14
	Zn	66	0.197	ug/L	0.009	4	238	620	2
	Zn	67	0.213	ug/L	0.006	2	34	107	3
	Zn	68	0.177	ug/L	0.023	13	277	520	7
	As	75	0.030	ug/L	0.030	98	199	232	24
	As-1	75	0.243	ug/L	0.137	56	9984	9256	0
	Se	82	0.006	ug/L	0.050	805	-4	-2	411
	Se	78	0.742	ug/L	0.489	65	10195	9393	0
	Mo	98	0.011	ug/L	0.007	63	52	99	34
	Y	89		ug/L			415847	368818	0
	Kr	83		ug/L			575	514	1
>	In	115		ug/L			1214777	1091825	1
	Ag	107	0.004	ug/L	0.002	43	30	78	29
	Cd	111	0.007	ug/L	0.001	20	92	118	7
	Cd	114	0.003	ug/L	0.002	55	57	87	23
	Sb	121	0.081	ug/L	0.013	16	341	1591	14
	Sb	123	0.083	ug/L	0.012	14	251	1212	13
	Ba	135	0.005	ug/L	0.001	19	21	42	9
	Ba	137	0.006	ug/L	0.002	29	36	78	18
>	Tb	159		ug/L			1265870	1152524	0
	Tl	205	0.021	ug/L	0.014	66	327	1158	49
	Pb	208	0.007	ug/L	0.001	19	254	560	11
	Bi	209		ug/L			3311562	3133164	1
	Th	232	0.057	ug/L	0.004	6	1377	4084	4
	U	238	0.002	ug/L	0.001	39	55	133	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:55:28
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1425979	0
	Be	9	0.001	ug/L	0.000	19	12	15	6
	C	13		ug/L			162544	136859	1
	Cl	37		ug/L			5197829	4843059	2
>	Sc	45		ug/L			1160558	938047	1
	V	51	0.014	ug/L	0.009	61	9051	7574	3
	V-1	51	-0.001	ug/L	0.001	181	176	132	12
	Cr	52	0.048	ug/L	0.032	66	26831	22392	3
	Cr	53	-0.004	ug/L	0.007	188	193	150	9
	Mn	55	0.007	ug/L	0.001	11	507	550	4
	Co	59	0.001	ug/L	0.002	132	104	101	23
>	Ge	72		ug/L			627564	555270	1
	Ni	60	0.019	ug/L	0.002	8	31	93	6
	Ni	62	0.172	ug/L	0.047	27	96	166	13
	Cu	63	0.065	ug/L	0.003	4	156	632	3
	Cu	65	0.060	ug/L	0.002	3	40	237	2
	Zn	66	0.313	ug/L	0.015	4	238	864	3
	Zn	67	0.283	ug/L	0.027	9	34	133	8
	Zn	68	0.296	ug/L	0.011	3	277	707	2
	As	75	0.021	ug/L	0.017	79	199	216	13
	As-1	75	0.192	ug/L	0.041	21	9984	9199	0
	Se	82	0.050	ug/L	0.022	43	-4	7	67
	Se	78	0.598	ug/L	0.144	24	10195	9353	0
	Mo	98	0.002	ug/L	0.002	75	52	58	14
	Y	89		ug/L			415847	367563	0
	Kr	83		ug/L			575	485	1
>	In	115		ug/L			1214777	1099177	1
	Ag	107	0.002	ug/L	0.000	24	30	49	10
	Cd	111	0.004	ug/L	0.001	30	92	104	6
	Cd	114	0.000	ug/L	0.001	5461	57	51	17
	Sb	121	0.035	ug/L	0.007	18	341	870	13
	Sb	123	0.034	ug/L	0.007	21	251	631	14
	Ba	135	0.011	ug/L	0.002	21	21	69	15
	Ba	137	0.011	ug/L	0.000	2	36	118	0
>	Tb	159		ug/L			1265870	1140517	0
	Tl	205	0.010	ug/L	0.008	74	327	703	42
	Pb	208	0.009	ug/L	0.000	1	254	653	0
	Bi	209		ug/L			3311562	3121419	0
	Th	232	0.032	ug/L	0.002	6	1377	2836	3
	U	238	0.000	ug/L	0.000	267	55	54	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 14:59:37
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1540034	1
	Be	9	47.584	ug/L	0.571	1	12	216372	1
	C	13		ug/L			162544	135670	2
	Cl	37		ug/L			5197829	5057356	1
>	Sc	45		ug/L			1160558	987115	1
	V	51	47.545	ug/L	1.182	2	9051	930682	1
	V-1	51	47.497	ug/L	0.890	1	176	922224	1
	Cr	52	50.618	ug/L	1.380	2	26831	807825	1
	Cr	53	50.449	ug/L	0.223	0	193	88579	0
	Mn	55	48.540	ug/L	0.532	1	507	1088642	2
	Co	59	52.294	ug/L	0.880	1	104	796636	1
>	Ge	72		ug/L			627564	554147	1
	Ni	60	48.234	ug/L	1.343	2	31	165839	2
	Ni	62	50.654	ug/L	0.908	1	96	23879	0
	Cu	63	49.462	ug/L	0.274	0	156	375166	0
	Cu	65	50.721	ug/L	1.259	2	40	170661	1
	Zn	66	51.276	ug/L	0.724	1	238	107179	1
	Zn	67	50.566	ug/L	0.587	1	34	18325	1
	Zn	68	50.571	ug/L	1.734	3	277	79124	2
	As	75	49.544	ug/L	0.625	1	199	94573	0
	As-1	75	49.690	ug/L	0.559	1	9984	103200	0
	Se	82	49.932	ug/L	0.720	1	-4	11029	0
	Se	78	50.484	ug/L	0.563	1	10195	37052	0
	Mo	98	48.863	ug/L	0.649	1	52	239477	1
	Y	89		ug/L			415847	371556	0
	Kr	83		ug/L			575	558	4
>	In	115		ug/L			1214777	1109637	0
	Ag	107	49.157	ug/L	0.703	1	30	628917	1
	Cd	111	50.327	ug/L	0.499	0	92	270387	1
	Cd	114	50.672	ug/L	0.485	0	57	679142	0
	Sb	121	50.567	ug/L	0.152	0	341	813025	0
	Sb	123	50.407	ug/L	0.052	0	251	611428	0
	Ba	135	49.728	ug/L	0.294	0	21	230718	0
	Ba	137	49.325	ug/L	0.185	0	36	395704	1
>	Tb	159		ug/L			1265870	1210137	1
	Tl	205	46.165	ug/L	0.348	0	327	1959177	1
	Pb	208	49.574	ug/L	0.469	0	254	2626710	0
	Bi	209		ug/L			3311562	3143834	1
	Th	232	53.088	ug/L	0.370	0	1377	2775871	0
	U	238	52.918	ug/L	0.500	0	55	2945065	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:06:30
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1486137 ✓	0
[	Be	9	0.002	ug/L	0.001	36	12	20	17
	C	13		ug/L			162544	135484	2
	Cl	37		ug/L			5197829	4943545	0
[>	Sc	45		ug/L			1160558	957347 ✓	2
[	V	51	0.006	ug/L	0.008	144	9051	7573	3
[	V-1	51	-0.003	ug/L	0.001	20	176	92	10
[	Cr	52	0.023	ug/L	0.029	126	26831	22471	3
[	Cr	53	-0.007	ug/L	0.002	20	193	147	2
[	Mn	55	0.001	ug/L	0.001	211	507	432	4
[	Co	59	0.001	ug/L	0.001	130	104	94	8
[>	Ge	72		ug/L			627564	549008 ✓	2
[	Ni	60	-0.001	ug/L	0.001	171	31	25	17
[	Ni	62	0.091	ug/L	0.048	52	96	126	15
[	Cu	63	0.003	ug/L	0.001	30	156	160	2
[	Cu	65	0.000	ug/L	0.002	618	40	36	18
[	Zn	66	0.008	ug/L	0.001	15	238	225	1
[	Zn	67	0.027	ug/L	0.021	78	34	40	17
[	Zn	68	0.022	ug/L	0.009	41	277	276	4
[	As	75	0.014	ug/L	0.004	25	199	200	4
[	As-1	75	0.258	ug/L	0.107	41	9984	9217	0
[	Se	82	-0.030	ug/L	0.033	108	-4	-10	69
[	Se	78	0.819	ug/L	0.407	49	10195	9366	0
[	Mo	98	0.006	ug/L	0.002	29	52	77	14
	Y	89		ug/L			415847	366033	3
	Kr	83		ug/L			575	515	1
[>	In	115		ug/L			1214777	1081414 ✓	0
[	Ag	107	0.003	ug/L	0.002	70	30	58	38
[	Cd	111	0.002	ug/L	0.003	118	92	93	14
[	Cd	114	0.001	ug/L	0.001	97	57	66	22
[	Sb	121	0.068	ug/L	0.012	17	341	1368	13
[	Sb	123	0.069	ug/L	0.010	14	251	1038	11
[	Ba	135	-0.001	ug/L	0.002	126	21	13	55
[	Ba	137	-0.001	ug/L	0.001	183	36	26	42
[>	Tb	159		ug/L			1265870	1123065 ✓	0
[	Tl	205	0.009	ug/L	0.008	83	327	655	46
[	Pb	208	0.000	ug/L	0.001	716	254	232	19
[	Bi	209		ug/L			3311562	3135470	0
[	Th	232	0.104	ug/L	0.008	7	1377	6280	6
[	U	238	0.001	ug/L	0.000	33	55	122	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:21:58
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1535144	2
	Be	9	0.001	ug/L	0.001	92	12	15	30
	C	13		ug/L			162544	147988	3
	Cl	37		ug/L			5197829	4912854	2
>	Sc	45		ug/L			1160558	1005310	1
	V	51	0.004	ug/L	0.008	191	9051	7924	0
	V-1	51	-0.002	ug/L	0.001	36	176	122	7
	Cr	52	0.017	ug/L	0.034	205	26831	23498	0
	Cr	53	-0.004	ug/L	0.007	167	193	160	6
	Mn	55	0.032	ug/L	0.003	10	507	1164	6
	Co	59	0.002	ug/L	0.001	31	104	119	6
>	Ge	72		ug/L			627564	565657	0
	Ni	60	0.006	ug/L	0.001	9	31	49	4
	Ni	62	0.013	ug/L	0.018	137	96	93	8
	Cu	63	0.011	ug/L	0.001	11	156	229	5
	Cu	65	0.009	ug/L	0.005	51	40	68	24
	Zn	66	0.362	ug/L	0.018	4	238	984	3
	Zn	67	0.280	ug/L	0.054	19	34	134	14
	Zn	68	0.316	ug/L	0.025	7	277	753	5
	As	75	0.011	ug/L	0.016	150	199	200	16
	As-1	75	0.153	ug/L	0.068	44	9984	9296	1
	Se	82	-0.002	ug/L	0.058	2377	-4	-4	283
	Se	78	0.477	ug/L	0.226	47	10195	9459	0
	Mo	98	0.001	ug/L	0.002	222	52	51	15
	Y	89		ug/L			415847	376122	1
	Kr	83		ug/L			575	515	1
>	In	115		ug/L			1214777	1130922	2
	Ag	107	0.001	ug/L	0.000	1	30	42	2
	Cd	111	0.000	ug/L	0.001	296	92	87	6
	Cd	114	0.000	ug/L	0.001	368	57	56	16
	Sb	121	0.020	ug/L	0.005	25	341	653	14
	Sb	123	0.021	ug/L	0.007	33	251	494	19
	Ba	135	0.028	ug/L	0.002	7	21	150	5
	Ba	137	0.029	ug/L	0.001	3	36	273	1
>	Tb	159		ug/L			1265870	1162653	1
	Tl	205	0.001	ug/L	0.003	286	327	349	40
	Pb	208	0.010	ug/L	0.001	6	254	757	2
	Bi	209		ug/L			3311562	3181253	1
	Th	232	0.054	ug/L	0.002	4	1377	3985	3
	U	238	-0.000	ug/L	0.000	122	55	44	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:26:05
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1698534	0
[	Be	9	25.274	ug/L	0.444	1	12	126761	1
	C	13		ug/L			162544	162340	2
	Cl	37		ug/L			5197829	5295767	2
[>	Sc	45		ug/L			1160558	1153451	2
[	V	51	24.964	ug/L	0.623	2	9051	575418	3
[	V-1	51	25.171	ug/L	0.507	2	176	571299	3
[	Cr	52	25.916	ug/L	0.989	3	26831	496176	1
[	Cr	53	26.650	ug/L	0.705	2	193	54750	0
[	Mn	55	24.688	ug/L	0.541	2	507	647018	0
[	Co	59	26.735	ug/L	1.097	4	104	475755	2
[>	Ge	72		ug/L			627564	593616	0
[	Ni	60	26.736	ug/L	0.585	2	31	98505	2
[	Ni	62	27.795	ug/L	0.817	2	96	14080	3
[	Cu	63	27.206	ug/L	0.688	2	156	221141	2
[	Cu	65	27.631	ug/L	0.146	0	40	99631	0
[	Zn	66	88.665	ug/L	0.341	0	238	198383	0
[	Zn	67	77.653	ug/L	0.462	0	34	30130	0
[	Zn	68	83.891	ug/L	1.504	1	277	140459	2
[	As	75	27.142	ug/L	0.552	2	199	55592	2
[	As-1	75	27.029	ug/L	0.602	2	9984	64446	1
[	Se	82	84.679	ug/L	0.228	0	-4	20043	0
[	Se	78	84.930	ug/L	0.418	0	10195	60196	0
[	Mo	98	24.899	ug/L	0.265	1	52	130745	1
	Y	89		ug/L			415847	405480	1
	Kr	83		ug/L			575	592	4
[>	In	115		ug/L			1214777	1173677	1
[	Ag	107	24.284	ug/L	0.657	2	30	328580	2
[	Cd	111	25.900	ug/L	0.328	1	92	147206	0
[	Cd	114	25.825	ug/L	0.577	2	57	366080	1
[	Sb	121	25.507	ug/L	0.483	1	341	433860	0
[	Sb	123	25.508	ug/L	0.471	1	251	327338	0
[	Ba	135	26.529	ug/L	0.274	1	21	130197	1
[	Ba	137	26.289	ug/L	0.633	2	36	223042	1
[>	Tb	159		ug/L			1265870	1236415	1
[	Tl	205	25.490	ug/L	0.630	2	327	1105137	1
[	Pb	208	26.800	ug/L	0.602	2	254	1450740	1
[	Bi	209		ug/L			3311562	3308809	0
[	Th	232	24.870	ug/L	0.767	3	1377	1328973	1
[	U	238	24.493	ug/L	0.582	2	55	1392465	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:30:13
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\112112.cal

rr V, Cr, Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1854966 ✓	1
[	Be	9	0.760	ug/L	0.005	0	12	4174	1
	C	13		ug/L			162544	211563	3
	Cl	37		ug/L			5197829	5539317	1
[>	Sc	45		ug/L			1160558	1536056	0
[	V	51	59.348	ug/L	1.050	1	9051	1805155	2
[	V-1	51	56.327	ug/L	0.298	0	176	1701998	1
[	Cr	52	153.170	ug/L	1.811	1	26831	3732669	1
[	Cr	53	142.476	ug/L	1.603	1	193	388802	0
[	Mn	55	782.634	ug/L	20.435	2	507	27298971	2
[	Co	59	16.081	ug/L	0.074	0	104	381332	0
[>	Ge	72		ug/L			627564	603448 ✓	2
[	Ni	60	45.478	ug/L	1.844	4	31	170198	2
[	Ni	62	52.381	ug/L	1.554	2	96	26890	3
[	Cu	63	23.119	ug/L	0.472	2	156	190981	0
[	Cu	65	23.991	ug/L	0.472	1	40	87920	1
[	Zn	66	235.816	ug/L	4.261	1	238	535835	0
[	Zn	67	256.935	ug/L	5.344	2	34	101236	0
[	Zn	68	253.794	ug/L	10.096	3	277	431141	1
[	As	75	12.260	ug/L	0.391	3	199	25618	0
[	As-1	75	12.313	ug/L	0.440	3	9984	35057	0
[	Se	82	-0.062	ug/L	0.042	66	-4	-19	51
[	Se	78	0.549	ug/L	0.270	49	10195	10133	1
[	Mo	98	0.399	ug/L	0.008	1	52	2179	1
	Y	89		ug/L			415847	648827	1
	Kr	83		ug/L			575	982	4
[>	In	115		ug/L			1214777	1183655 ✓	0
[	Ag	107	0.193	ug/L	0.002	1	30	2664	1
[	Cd	111	3.868	ug/L	0.035	0	92	22250	0
[	Cd	114	3.735	ug/L	0.028	0	57	53453	0
[	Sb	121	0.154	ug/L	0.003	1	341	2969	2
[	Sb	123	0.157	ug/L	0.003	1	251	2276	1
[	Ba	135	867.295	ug/L	5.873	0	21	4292080	1
[	Ba	137	860.681	ug/L	4.843	0	36	7364795	1
[>	Tb	159		ug/L			1265870	1386310 ✓	0
[	Tl	205	0.532	ug/L	0.010	1	327	26221	1
[	Pb	208	140.571	ug/L	1.062	0	254	8532218	0
[	Bi	209		ug/L			3311562	3095302	0
[	Th	232	3.415	ug/L	0.065	1	1377	205993	2
[	U	238	0.616	ug/L	0.007	1	55	39359	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:34:21
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1773462	0
[	Be	9	0.458	ug/L	0.006	1	12	2408	0
	C	13		ug/L			162544	215205	4
	Cl	37		ug/L			5197829	5460596	1
[>	Sc	45		ug/L			1160558	1312490 ✓	2
[	V	51	27.362	ug/L	0.953	3	9051	716233	1
[	V-1	51	27.319	ug/L	0.947	3	176	705062	1
[	Cr	52	21.760	ug/L	0.612	2	26831	478925	0
[	Cr	53	21.606	ug/L	0.579	2	193	50546	0
[	Mn	55	448.536	ug/L	11.896	2	507	13364417	0
[	Co	59	6.817	ug/L	0.277	4	104	138106	1
[>	Ge	72		ug/L			627564	630480	0
[	Ni	60	17.122	ug/L	0.568	3	31	67013	3
[	Ni	62	19.848	ug/L	0.008	0	96	10706	0
[	Cu	63	23.115	ug/L	0.724	3	156	199559	3
[	Cu	65	24.159	ug/L	0.410	1	40	92521	1
[	Zn	66	172.901	ug/L	2.424	1	238	410624	0
[	Zn	67	165.964	ug/L	3.668	2	34	68348	1
[	Zn	68	169.173	ug/L	4.399	2	277	300521	2
[	As	75	8.671	ug/L	0.111	1	199	18997	0
[	As-1	75	8.709	ug/L	0.125	1	9984	28852	0
[	Se	82	~~0.157~~	ug/L	0.057	36	-4	34	40
[	Se	78	0.462	ug/L	0.089	19	10195	10534	0
[	Mo	98	0.345	ug/L	0.007	2	52	1976	1
	Y	89		ug/L			415847	626825	2
	Kr	83		ug/L			575	789	2
[>	In	115		ug/L			1214777	1217529	1
[	Ag	107	0.200	ug/L	0.010	4	30	2843	4
[	Cd	111	3.101	ug/L	0.056	1	92	18364	0
[	Cd	114	2.972	ug/L	0.018	0	57	43767	1
[	Sb	121	~~0.179~~	ug/L	0.006	3	341	3505	1
[	Sb	123	0.174	ug/L	0.008	4	251	2572	3
[	Ba	135	170.536	ug/L	3.818	2	21	867984	1
[	Ba	137	171.403	ug/L	0.527	0	36	1508628	0
[>	Tb	159		ug/L			1265870	1366561	0
[	Tl	205	0.212	ug/L	0.003	1	327	10522	1
[	Pb	208	122.107	ug/L	0.660	0	254	7306186	0
[	Bi	209		ug/L			3311562	3262524	0
[	Th	232	4.522	ug/L	0.032	0	1377	268396	0
[	U	238	3.729	ug/L	0.045	1	55	234415	1

VS18 : 00256

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:38:28
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1731450	1
[	Be	9	0.443	ug/L	0.023	5	12	2275	4
	C	13		ug/L			162544	220070	2
	Cl	37		ug/L			5197829	5448354	4
[>	Sc	45		ug/L			1160558	1296543	1
[	V	51	27.213	ug/L	0.357	1	9051	704042	1
[	V-1	51	27.287	ug/L	0.390	1	176	695945	0
[	Cr	52	20.094	ug/L	0.203	1	26831	439397	2
[	Cr	53	20.353	ug/L	0.338	1	193	47062	0
[	Mn	55	481.339	ug/L	5.236	1	507	14172197	1
[	Co	59	6.632	ug/L	0.105	1	104	132806	1
[>	Ge	72		ug/L			627564	627693	2
[	Ni	60	16.238	ug/L	0.353	2	31	63256	1
[	Ni	62	18.702	ug/L	0.298	1	96	10046	0
[	Cu	63	26.617	ug/L	0.644	2	156	228715	2
[	Cu	65	27.238	ug/L	0.422	1	40	103843	2
[	Zn	66	218.828	ug/L	8.550	3	238	517091	2
[	Zn	67	205.473	ug/L	4.274	2	34	84221	0
[	Zn	68	208.283	ug/L	3.926	1	277	368227	0
[	As	75	11.303	ug/L	0.113	1	199	24594	1
[	As-1	75	11.324	ug/L	0.167	1	9984	34348	1
[	Se	82	0.274	ug/L	0.115	42	-4	63	42
[	Se	78	0.452	ug/L	0.338	74	10195	10479	0
[	Mo	98	0.325	ug/L	0.008	2	52	1854	3
	Y	89		ug/L			415847	612495	0
	Kr	83		ug/L			575	755	5
[>	In	115		ug/L			1214777	1205755	0
[	Ag	107	0.232	ug/L	0.010	4	30	3258	3
[	Cd	111	5.303	ug/L	0.088	1	92	31038	1
[	Cd	114	5.186	ug/L	0.075	1	57	75571	1
[	Sb	121	0.174	ug/L	0.005	2	341	3375	2
[	Sb	123	0.171	ug/L	0.012	7	251	2506	6
[	Ba	135	163.978	ug/L	3.303	2	21	826642	1
[	Ba	137	162.580	ug/L	0.905	0	36	1417144	0
[>	Tb	159		ug/L			1265870	1345977	1
[	Tl	205	0.247	ug/L	0.012	4	327	11981	2
[	Pb	208	229.710	ug/L	6.527	2	254	13532467	0
[	Bi	209		ug/L			3311562	3240544	0
[	Th	232	4.866	ug/L	0.155	3	1377	284233	1
[	U	238	4.269	ug/L	0.103	2	55	264264	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:42:36
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1774563	0
[	Be	9	0.426	ug/L	0.011	2	12	2244	3
	C	13		ug/L			162544	214573	4
	Cl	37		ug/L			5197829	5468440	1
[>	Sc	45		ug/L			1160558	1308844	2
[	V	51	24.752	ug/L	0.360	1	9051	647295	0
[	V-1	51	24.725	ug/L	0.469	1	176	636511	0
[	Cr	52	18.978	ug/L	0.258	1	26831	420517	1
[	Cr	53	18.879	ug/L	0.647	3	193	44069	1
[	Mn	55	449.948	ug/L	13.673	3	507	13368886	0
[	Co	59	6.104	ug/L	0.169	2	104	123370	2
[>	Ge	72		ug/L			627564	636938	0
[	Ni	60	15.404	ug/L	0.261	1	31	60901	1
[	Ni	62	17.499	ug/L	0.131	0	96	9547	0
[	Cu	63	23.963	ug/L	0.679	2	156	208981	2
[	Cu	65	24.438	ug/L	0.195	0	40	94551	0
[	Zn	66	168.464	ug/L	2.066	1	238	404202	0
[	Zn	67	166.025	ug/L	2.936	1	34	69081	1
[	Zn	68	163.351	ug/L	2.708	1	277	293163	1
[	As	75	9.626	ug/L	0.016	0	199	21285	0
[	As-1	75	9.622	ug/L	0.009	0	9984	31141	0
[	Se	82	0.215	ug/L	0.029	13	-4	49	14
[	Se	78	0.314	ug/L	0.063	20	10195	10548	0
[	Mo	98	0.278	ug/L	0.013	4	52	1618	4
	Y	89		ug/L			415847	623287	1
	Kr	83		ug/L			575	758	1
[>	In	115		ug/L			1214777	1219203	0
[	Ag	107	0.189	ug/L	0.004	1	30	2682	1
[	Cd	111	3.702	ug/L	0.056	1	92	21939	2
[	Cd	114	3.598	ug/L	0.047	1	57	53044	1
[	Sb	121	0.125	ug/L	0.004	3	341	2544	3
[	Sb	123	0.131	ug/L	0.005	3	251	1997	2
[	Ba	135	152.897	ug/L	2.066	1	21	779360	0
[	Ba	137	153.355	ug/L	2.634	1	36	1351554	1
[>	Tb	159		ug/L			1265870	1342423	1
[	Tl	205	0.214	ug/L	0.001	0	327	10416	1
[	Pb	208	168.427	ug/L	3.061	1	254	9898136	0
[	Bi	209		ug/L			3311562	3236253	0
[	Th	232	4.538	ug/L	0.057	1	1377	264554	0
[	U	238	4.374	ug/L	0.077	1	55	270055	0

VS18:00258

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:46:44
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1764343	1
[	Be	9	0.427	ug/L	0.005	1	12	2238	1
	C	13		ug/L			162544	200646	0
	Cl	37		ug/L			5197829	5385036	1
[>	Sc	45		ug/L			1160558	1299268	0
[	V	51	25.612	ug/L	0.313	1	9051	664680	1
[	V-1	51	25.601	ug/L	0.163	0	176	654444	1
[	Cr	52	18.733	ug/L	0.406	2	26831	412509	2
[	Cr	53	18.695	ug/L	0.444	2	193	43340	1
[	Mn	55	432.195	ug/L	4.062	0	507	12752562	0
[	Co	59	6.191	ug/L	0.061	0	104	124241	0
[>	Ge	72		ug/L			627564	629214	1
[	Ni	60	15.679	ug/L	0.396	2	31	61222	1
[	Ni	62	17.853	ug/L	0.395	2	96	9618	1
[	Cu	63	22.107	ug/L	0.742	3	156	190418	1
[	Cu	65	22.542	ug/L	0.060	0	40	86163	1
[	Zn	66	79.781	ug/L	1.167	1	238	189217	1
[	Zn	67	82.301	ug/L	1.139	1	34	33842	0
[	Zn	68	81.547	ug/L	2.173	2	277	144690	1
[	As	75	6.389	ug/L	0.084	1	199	14021	0
[	As-1	75	6.402	ug/L	0.147	2	9984	23816	0
[	Se	82	~ 0.211	ug/L	0.067	31	-4	48	33
[	Se	78	0.415	ug/L	0.249	59	10195	10482	0
[	Mo	98	0.227	ug/L	0.004	1	52	1313	0
	Y	89		ug/L			415847	621594	1
	Kr	83		ug/L			575	757	3
[>	In	115		ug/L			1214777	1180007	0
[	Ag	107	~ 0.126	ug/L	0.010	8	30	1742	8
[	Cd	111	1.185	ug/L	0.037	3	92	6860	3
[	Cd	114	1.129	ug/L	0.022	1	57	16149	1
[	Sb	121	~ 0.054	ug/L	0.002	3	341	1256	2
[	Sb	123	0.058	ug/L	0.004	6	251	994	5
[	Ba	135	139.392	ug/L	0.844	0	21	687695	0
[	Ba	137	139.489	ug/L	1.948	1	36	1189866	1
[>	Tb	159		ug/L			1265870	1314517	1
[	Tl	205	~ 0.140	ug/L	0.003	2	327	6771	1
[	Pb	208	45.774	ug/L	0.581	1	254	2634496	0
[	Bi	209		ug/L			3311562	3201511	0
[	Th	232	4.724	ug/L	0.045	0	1377	269584	0
[	U	238	5.247	ug/L	0.094	1	55	317239	0

VS18:00259

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:50:51
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\112112.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1776651	1762703	0
Be	9	0.461	ug/L	0.013	2	12	2411	3
C	13		ug/L			162544	190234	2
Cl	37		ug/L			5197829	5318045	0
Sc	45		ug/L			1160558	1291218	2
V	51	28.052	ug/L	0.773	2	9051	722236	0
V-1	51	28.233	ug/L	0.683	2	176	716975	0
Cr	52	20.805	ug/L	0.826	3	26831	451762	1
Cr	53	21.445	ug/L	0.435	2	193	49366	1
Mn	55	379.768	ug/L	1.915	0	507	11135813	1
Co	59	6.750	ug/L	0.103	1	104	134594	1
Ge	72		ug/L			627564	631350	1
Ni	60	18.569	ug/L	0.615	3	31	72742	1
Ni	62	21.268	ug/L	1.070	5	96	11475	3
Cu	63	23.595	ug/L	0.404	1	156	203948	0
Cu	65	24.028	ug/L	0.453	1	40	92131	0
Zn	66	64.481	ug/L	1.743	2	238	153485	2
Zn	67	69.038	ug/L	1.991	2	34	28485	1
Zn	68	66.120	ug/L	2.594	3	277	117744	2
As	75	3.795	ug/L	0.201	5	199	8435	3
As-1	75	3.766	ug/L	0.336	8	9984	18186	2
Se	82	0.158	ug/L	0.043	27	-4	34	29
Se	78	0.271	ug/L	0.504	185	10195	10425	1
Mo	98	0.234	ug/L	0.005	2	52	1360	0
Y	89		ug/L			415847	656611	1
Kr	83		ug/L			575	782	4
In	115		ug/L			1214777	1182095	0
Ag	107	0.124	ug/L	0.007	5	30	1723	4
Cd	111	0.668	ug/L	0.034	5	92	3912	4
Cd	114	0.586	ug/L	0.011	1	57	8415	1
Sb	121	0.027	ug/L	0.003	9	341	786	6
Sb	123	0.026	ug/L	0.002	9	251	581	6
Ba	135	128.765	ug/L	1.566	1	21	636371	0
Ba	137	128.468	ug/L	2.305	1	36	1097729	0
Tb	159		ug/L			1265870	1319002	0
Tl	205	0.133	ug/L	0.001	0	327	6492	0
Pb	208	24.676	ug/L	0.227	0	254	1425278	0
Bi	209		ug/L			3311562	3187867	1
Th	232	5.626	ug/L	0.015	0	1377	321937	0
U	238	6.517	ug/L	0.015	0	55	395393	0

VS18 : 00260

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 15:56:03
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\112112.cal

rr Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1776651	1723455	0
	Be	9	0.569	ug/L	0.019	3	12	2908	2
	C	13		ug/L			162544	190253	2
	Cl	37		ug/L			5197829	5393990	3
>	Sc	45		ug/L			1160558	1333734	1
	V	51	41.549	ug/L	0.360	0	9051	1100454	2
	V-1	51	41.608	ug/L	0.072	0	176	1091710	2
	Cr	52	34.589	ug/L	0.663	1	26831	755785	2
	Cr	53	34.799	ug/L	0.699	2	193	82607	0
	Mn	55	520.498	ug/L	2.984	0	507	15766935	2
	Co	59	9.746	ug/L	0.216	2	104	200647	0
>	Ge	72		ug/L			627564	615306	2
	Ni	60	21.422	ug/L	0.732	3	31	81777	1
	Ni	62	24.439	ug/L	1.179	4	96	12835	2
	Cu	63	35.802	ug/L	0.964	2	156	301485	1
	Cu	65	36.474	ug/L	0.664	1	40	136275	0
	Zn	66	254.186	ug/L	5.226	2	238	588953	1
	Zn	67	232.385	ug/L	6.313	2	34	93364	1
	Zn	68	240.010	ug/L	6.168	2	277	415895	1
	As	75	26.810	ug/L	0.399	1	199	56909	0
	As-1	75	26.933	ug/L	0.484	1	9984	66584	0
	Se	82	0.232	ug/L	0.010	4	-4	52	6
	Se	78	0.714	ug/L	0.338	47	10195	10434	0
	Mo	98	0.359	ug/L	0.001	0	52	2003	2
	Y	89		ug/L			415847	633688	1
	Kr	83		ug/L			575	833	4
>	In	115		ug/L			1214777	1213618	0
	Ag	107	0.408	ug/L	0.007	1	30	5740	0
	Cd	111	6.009	ug/L	0.090	1	92	35392	1
	Cd	114	5.931	ug/L	0.045	0	57	86998	0
	Sb	121	0.281	ug/L	0.011	3	341	5275	2
	Sb	123	0.280	ug/L	0.005	1	251	3967	1
	Ba	135	173.901	ug/L	2.845	1	21	882361	1
	Ba	137	172.902	ug/L	1.114	0	36	1516920	0
>	Tb	159		ug/L			1265870	1311176	1
	Tl	205	0.450	ug/L	0.012	2	327	21040	1
	Pb	208	337.716	ug/L	5.922	1	254	19385391	0
	Bi	209		ug/L			3311562	3113580	0
	Th	232	4.728	ug/L	0.051	1	1377	269130	0
	U	238	0.647	ug/L	0.002	0	55	39068	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:00:10
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\112112.cal

rr Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1765952	0
[	Be	9	0.417	ug/L	0.019	4	12	2185	4
	C	13		ug/L			162544	226745	1
	Cl	37		ug/L			5197829	5537509	3
[>	Sc	45		ug/L			1160558	1301422	1
[	V	51	22.131	ug/L	0.410	1	9051	576535	0
[	V-1	51	22.075	ug/L	0.320	1	176	565156	0
[	Cr	52	18.273	ug/L	0.375	2	26831	403679	0
[	Cr	53	18.074	ug/L	0.249	1	193	41976	1
[	Mn	55	813.163	ug/L	13.157	1	507	24029143	0
[	Co	59	6.286	ug/L	0.093	1	104	126352	1
[>	Ge	72		ug/L			627564	627165	2
[	Ni	60	16.170	ug/L	0.533	3	31	62917	1
[	Ni	62	17.825	ug/L	0.102	0	96	9574	2
[	Cu	63	36.901	ug/L	1.239	3	156	316645	1
[	Cu	65	37.093	ug/L	1.258	3	40	141223	1
[	Zn	66	1119.164	ug/L	37.178	3	238	2641352	1
[	Zn	67	928.804	ug/L	25.763	2	34	380202	0
[	Zn	68	990.375	ug/L	14.799	1	277	1748504	1
[	As	75	23.749	ug/L	0.517	2	199	51398	0
[	As-1	75	23.774	ug/L	0.641	2	9984	61066	0
[	Se	82	0.568	ug/L	0.089	15	-4	137	14
[	Se	78	0.606	ug/L	0.517	85	10195	10565	0
[	Mo	98	0.490	ug/L	0.022	4	52	2766	1
	Y	89		ug/L			415847	559704	1
	Kr	83		ug/L			575	736	4
[>	In	115		ug/L			1214777	1388713	0
[	Ag	107	0.959	ug/L	0.025	2	30	15381	2
[	Cd	111	16.994	ug/L	0.145	0	92	114327	1
[	Cd	114	16.822	ug/L	0.130	0	57	282200	0
[	Sb	121	1.052	ug/L	0.009	0	341	21540	1
[	Sb	123	1.058	ug/L	0.005	0	251	16345	0
[	Ba	135	224.483	ug/L	1.631	0	21	1303341	0
[	Ba	137	245.954	ug/L	2.981	1	36	2469070	0
[>	Tb	159		ug/L			1265870	1303006	0
[	Tl	205	0.797	ug/L	0.013	1	327	36731	0
[	Pb	208	1154.983	ug/L	7.138	0	254	65890317	0
[	Bi	209		ug/L			3311562	3214006	0
[	Th	232	4.025	ug/L	0.059	1	1377	227913	1
[	U	238	0.589	ug/L	0.003	0	55	35344	1

VS18 : 00252

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:04:19
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1674836 ✓	1
[	Be	9	51.465	ug/L	1.376	2	12	254428	0
	C	13		ug/L			162544	168071	1
	Cl	37		ug/L			5197829	5786896	1
[>	Sc	45		ug/L			1160558	1178272 ✓	1
[	V	51	46.328	ug/L	0.238	0	9051	1082900	1
[	V-1	51	46.543	ug/L	0.354	0	176	1078793	1
[	Cr	52	48.790	ug/L	0.823	1	26831	930700	2
[	Cr	53	49.552	ug/L	0.551	1	193	103855	1
[	Mn	55	45.971	ug/L	0.940	2	507	1230574	2
[	Co	59	48.190	ug/L	0.550	1	104	876339	1
[>	Ge	72		ug/L			627564	618047 ✓	1
[	Ni	60	48.366	ug/L	0.496	1	31	185489	0
[	Ni	62	49.920	ug/L	0.924	1	96	26248	0
[	Cu	63	48.625	ug/L	1.353	2	156	411305	2
[	Cu	65	50.041	ug/L	1.132	2	40	187808	1
[	Zn	66	50.554	ug/L	1.347	2	238	117849	2
[	Zn	67	48.621	ug/L	0.696	1	34	19654	1
[	Zn	68	47.932	ug/L	0.881	1	277	83662	1
[	As	75	48.806	ug/L	0.710	1	199	103910	0
[	As-1	75	48.813	ug/L	0.874	1	9984	113238	0
[	Se	82	49.159	ug/L	0.841	1	-4	12111	0
[	Se	78	49.185	ug/L	1.386	2	10195	40515	0
[	Mo	98	47.440	ug/L	0.159	0	52	259308	0
	Y	89		ug/L			415847	425659	0
	Kr	83		ug/L			575	581	5
[>	In	115		ug/L			1214777	1148966 ✓	0
[	Ag	107	45.669	ug/L	1.148	2	30	604983	2
[	Cd	111	50.068	ug/L	0.466	0	92	278513	1
[	Cd	114	49.904	ug/L	0.272	0	57	692563	0
[	Sb	121	50.024	ug/L	0.287	0	341	832771	0
[	Sb	123	49.501	ug/L	0.671	1	251	621678	0
[	Ba	135	49.029	ug/L	0.373	0	21	235538	0
[	Ba	137	48.695	ug/L	0.154	0	36	404497	1
[>	Tb	159		ug/L			1265870	1226152 ✓	0
[	Tl	205	45.350	ug/L	0.537	1	327	1950078	1
[	Pb	208	48.242	ug/L	0.241	0	254	2590116	0
[	Bi	209		ug/L			3311562	3089136	0
[	Th	232	52.725	ug/L	0.374	0	1377	2793398	0
[	U	238	52.920	ug/L	0.184	0	55	2984221	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:11:12
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1604334 ✓	0
[	Be	9	0.001	ug/L	0.001	115	12	14	28
	C	13		ug/L			162544	156361	1
	Cl	37		ug/L			5197829	5101912	1
[>	Sc	45		ug/L			1160558	1129086 ✓	2
[	V	51	-0.008	ug/L	0.019	251	9051	8628	2
[	V-1	51	-0.004	ug/L	0.000	9	176	79	8
[	Cr	52	-0.031	ug/L	0.073	233	26831	25529	2
[	Cr	53	-0.019	ug/L	0.008	40	193	150	8
[	Mn	55	0.000	ug/L	0.002	610	507	499	6
[	Co	59	0.000	ug/L	0.000	42	104	110	3
[>	Ge	72		ug/L			627564	585426 ✓	1
[	Ni	60	0.001	ug/L	0.002	121	31	34	17
[	Ni	62	-0.031	ug/L	0.021	69	96	75	13
[	Cu	63	-0.001	ug/L	0.002	204	156	138	12
[	Cu	65	0.006	ug/L	0.001	23	40	57	8
[	Zn	66	0.007	ug/L	0.004	59	238	237	2
[	Zn	67	0.012	ug/L	0.016	128	34	37	16
[	Zn	68	-0.005	ug/L	0.006	129	277	251	4
[	As	75	0.022	ug/L	0.004	16	199	231	3
[	As-1	75	0.344	ug/L	0.028	8	9984	10005	0
[	Se	82	-0.003	ug/L	0.045	1427	-4	-5	208
[	Se	78	1.117	ug/L	0.110	9	10195	10166	0
[	Mo	98	0.001	ug/L	0.003	373	52	53	29
	Y	89		ug/L			415847	398757	0
	Kr	83		ug/L			575	554	3
[>	In	115		ug/L			1214777	1096150 ✓	1
[	Ag	107	0.001	ug/L	0.000	19	30	43	8
[	Cd	111	0.003	ug/L	0.002	82	92	98	11
[	Cd	114	-0.001	ug/L	0.000	73	57	44	13
[	Sb	121	0.040	ug/L	0.003	7	341	941	6
[	Sb	123	0.042	ug/L	0.007	16	251	727	12
[	Ba	135	0.000	ug/L	0.001	351	21	20	29
[	Ba	137	-0.001	ug/L	0.001	105	36	28	14
[>	Tb	159		ug/L			1265870	1141239 ✓	0
[	Tl	205	0.005	ug/L	0.004	82	327	498	34
[	Pb	208	0.001	ug/L	0.000	21	254	275	3
[	Bi	209		ug/L			3311562	3054954	0
[	Th	232	0.098	ug/L	0.011	10	1377	6060	8
[	U	238	0.001	ug/L	0.000	32	55	127	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:19:48
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1776651	1674572	0
	Be	**9**	**0.117**	ug/L	0.003	2	12	589	3
	C	**13**		ug/L			162544	170607	1
	Cl	**37**		ug/L			5197829	5338330	3
>	**Sc**	**45**		ug/L			1160558	1222055	2
	V	**51**	**3.712**	ug/L	0.109	2	9051	98727	1
	V-1	**51**	**3.750**	ug/L	0.112	2	176	90284	1
	Cr	**52**	**2.930**	ug/L	0.115	3	26831	84484	0
	Cr	**53**	**3.063**	ug/L	0.122	3	193	6846	1
	Mn	**55**	**163.785**	ug/L	2.626	1	507	4545013	0
	Co	**59**	**0.955**	ug/L	0.024	2	104	18116	0
>	**Ge**	**72**		ug/L			627564	616981	1
	Ni	**60**	**2.026**	ug/L	0.028	1	31	7785	0
	Ni	**62**	**2.217**	ug/L	0.157	7	96	1254	7
	Cu	**63**	**6.898**	ug/L	0.171	2	156	58378	1
	Cu	**65**	**6.937**	ug/L	0.158	2	40	26023	1
	Zn	**66**	**73.490**	ug/L	1.617	2	238	170942	2
	Zn	**67**	**67.119**	ug/L	1.070	1	34	27069	0
	Zn	**68**	**70.833**	ug/L	1.165	1	277	123286	0
	As	**75**	**2.100**	ug/L	0.018	0	199	4651	0
	As-1	**75**	**2.194**	ug/L	0.097	4	9984	14455	0
	Se	**82**	**0.184**	ug/L	0.032	17	-4	40	20
	Se	**78**	**0.486**	ug/L	0.275	56	10195	10322	0
	Mo	**98**	**0.044**	ug/L	0.007	15	52	294	12
	Y	**89**		ug/L			415847	484366	1
	Kr	**83**		ug/L			575	567	7
>	**In**	**115**		ug/L			1214777	1149155	1
	Ag	**107**	**0.052**	ug/L	0.002	3	30	712	4
	Cd	**111**	**1.105**	ug/L	0.005	0	92	6233	1
	Cd	**114**	**1.085**	ug/L	0.015	1	57	15118	0
	Sb	**121**	**0.094**	ug/L	0.002	2	341	1893	2
	Sb	**123**	**0.098**	ug/L	0.003	2	251	1465	3
	Ba	**135**	**34.788**	ug/L	0.758	2	21	167133	1
	Ba	**137**	**34.574**	ug/L	0.282	0	36	287231	0
>	**Tb**	**159**		ug/L			1265870	1211044	0
	Tl	**205**	**0.059**	ug/L	0.007	12	327	2830	10
	Pb	**208**	**58.395**	ug/L	0.475	0	254	3096454	0
	Bi	**209**		ug/L			3311562	3192356	0
	Th	**232**	**0.663**	ug/L	0.013	2	1377	35984	2
	U	**238**	**0.984**	ug/L	0.015	1	55	54831	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:23:56
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\112112.cal

rr Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1665643	3
[	Be	9	0.549	ug/L	0.031	5	12	2707	2
	C	13		ug/L			162544	217669	4
	Cl	37		ug/L			5197829	5420339	1
[>	Sc	45		ug/L			1160558	1258474	0
[	V	51	18.200	ug/L	0.554	3	9051	460343	3
[	V-1	51	18.230	ug/L	0.531	2	176	451432	2
[	Cr	52	14.626	ug/L	0.102	0	26831	318330	1
[	Cr	53	14.731	ug/L	0.338	2	193	33121	1
[	Mn	55	757.974	ug/L	25.002	3	507	21661710	3
[	Co	59	4.466	ug/L	0.095	2	104	86850	2
[>	Ge	72		ug/L			627564	629456	0
[	Ni	60	9.572	ug/L	0.167	1	31	37415	2
[	Ni	62	10.859	ug/L	0.069	0	96	5891	1
[	Cu	63	31.206	ug/L	0.492	1	156	268958	2
[	Cu	65	32.512	ug/L	0.405	1	40	124289	0
[	Zn	66	273.189	ug/L	3.966	1	238	647600	0
[	Zn	67	249.539	ug/L	2.440	0	34	102588	0
[	Zn	68	261.398	ug/L	2.498	0	277	463470	0
[	As	75	9.732	ug/L	0.137	1	199	21262	0
[	As-1	75	9.714	ug/L	0.215	2	9984	30973	0
[	Se	82	u 0.361	ug/L	0.033	9	-4	86	9
[	Se	78	0.445	ug/L	0.255	57	10195	10506	0
[	Mo	98	0.236	ug/L	0.011	4	52	1365	4
	Y	89		ug/L			415847	731660	0
	Kr	83		ug/L			575	772	3
[>	In	115		ug/L			1214777	1184278	0
[	Ag	107	0.230	ug/L	0.008	3	30	3163	3
[	Cd	111	5.116	ug/L	0.020	0	92	29414	0
[	Cd	114	4.955	ug/L	0.023	0	57	70937	0
[	Sb	121	0.414	ug/L	0.009	2	341	7426	1
[	Sb	123	0.424	ug/L	0.007	1	251	5732	1
[	Ba	135	167.261	ug/L	2.374	1	21	828167	1
[	Ba	137	165.505	ug/L	1.097	0	36	1416938	0
[>	Tb	159		ug/L			1265870	1270773	0
[	Tl	205	0.224	ug/L	0.005	2	327	10314	1
[	Pb	208	300.788	ug/L	1.851	0	254	16735108	0
[	Bi	209		ug/L			3311562	3135081	0
[	Th	232	2.792	ug/L	0.036	1	1377	154628	0
[	U	238	4.494	ug/L	0.091	2	55	262661	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:28:03
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\112112.cal

rr Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1776651	1676159	2
[	**Be**	**9**	**0.539**	ug/L	0.022	4	12	2675	1
	C	**13**		ug/L			162544	207074	1
	Cl	**37**		ug/L			5197829	5268336	3
[>	**Sc**	**45**		ug/L			1160558	1259935	1
[	**V**	**51**	**17.131**	ug/L	0.232	1	9051	434360	1
[	**V-1**	**51**	**17.152**	ug/L	0.191	1	176	425225	1
[	**Cr**	**52**	**12.153**	ug/L	0.220	1	26831	269706	1
[	**Cr**	**53**	**12.227**	ug/L	0.299	2	193	27555	1
[	**Mn**	**55**	**740.596**	ug/L	20.039	2	507	21187520	2
[	**Co**	**59**	**4.357**	ug/L	0.129	2	104	84821	2
[>	**Ge**	**72**		ug/L			627564	611940	2
[	**Ni**	**60**	**9.549**	ug/L	0.110	1	31	36292	3
[	**Ni**	**62**	**11.292**	ug/L	0.208	1	96	5952	2
[	**Cu**	**63**	**32.336**	ug/L	0.468	1	156	270856	0
[	**Cu**	**65**	**32.621**	ug/L	1.277	3	40	121204	3
[	**Zn**	**66**	**281.806**	ug/L	11.644	4	238	649140	2
[	**Zn**	**67**	**258.567**	ug/L	2.069	0	34	103341	1
[	**Zn**	**68**	**270.586**	ug/L	1.385	0	277	466383	1
[	**As**	**75**	**9.744**	ug/L	0.158	1	199	20695	1
[	**As-1**	**75**	**9.790**	ug/L	0.171	1	9984	30268	1
[	**Se**	**82**	**0.411**	ug/L	0.079	19	-4	96	22
[	**Se**	**78**	**0.675**	ug/L	0.067	9	10195	10355	1
[	**Mo**	**98**	**0.217**	ug/L	0.004	1	52	1225	1
	Y	**89**		ug/L			415847	693258	1
	Kr	**83**		ug/L			575	722	4
[>	**In**	**115**		ug/L			1214777	1173040	0
[	**Ag**	**107**	**0.214**	ug/L	0.002	1	30	2928	1
[	**Cd**	**111**	**5.005**	ug/L	0.018	0	92	28505	1
[	**Cd**	**114**	**4.965**	ug/L	0.046	0	57	70392	0
[	**Sb**	**121**	**0.396**	ug/L	0.001	0	341	7048	1
[	**Sb**	**123**	**0.402**	ug/L	0.000	0	251	5395	0
[	**Ba**	**135**	**166.487**	ug/L	1.087	0	21	816522	0
[	**Ba**	**137**	**164.994**	ug/L	1.861	1	36	1399096	0
[>	**Tb**	**159**		ug/L			1265870	1284419	1
[	**Tl**	**205**	**0.216**	ug/L	0.003	1	327	10079	1
[	**Pb**	**208**	**303.660**	ug/L	4.104	1	254	17074796	0
[	**Bi**	**209**		ug/L			3311562	3128766	0
[	**Th**	**232**	**2.703**	ug/L	0.039	1	1377	151337	0
[	**U**	**238**	**4.366**	ug/L	0.058	1	55	257927	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:32:11
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\112112.cal

rr Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1776651	1646910	1
[	**Be**	**9**	**26.113**	ug/L	0.659	2	12	126980	2
	C	**13**		ug/L			162544	209714	0
	Cl	**37**		ug/L			5197829	5388395	0
[>	**Sc**	**45**		ug/L			1160558	1267510	3
[	**V**	**51**	**40.186**	ug/L	0.708	1	9051	1011483	2
[	**V-1**	**51**	**40.059**	ug/L	0.829	2	176	998546	2
[	**Cr**	**52**	**34.776**	ug/L	0.561	1	26831	721681	2
[	**Cr**	**53**	**34.326**	ug/L	0.915	2	193	77412	1
[	**Mn**	**55**	**826.480**	ug/L	35.142	4	507	23770338	2
[	**Co**	**59**	**27.669**	ug/L	1.921	6	104	540427	3
[>	**Ge**	**72**		ug/L			627564	616992	0
[	**Ni**	**60**	**34.453**	ug/L	0.555	1	31	131922	1
[	**Ni**	**62**	**36.643**	ug/L	0.694	1	96	19261	1
[	**Cu**	**63**	**56.002**	ug/L	0.970	1	156	472928	1
[	**Cu**	**65**	**57.654**	ug/L	0.082	0	40	216029	0
[	**Zn**	**66**	**362.877**	ug/L	4.109	1	238	843154	1
[	**Zn**	**67**	**337.571**	ug/L	7.039	2	34	136036	2
[	**Zn**	**68**	**350.647**	ug/L	2.346	0	277	609335	1
[	**As**	**75**	**34.684**	ug/L	0.075	0	199	73783	0
[	**As-1**	**75**	**34.693**	ug/L	0.261	0	9984	83195	1
[	**Se**	**82**	**77.445**	ug/L	0.913	1	-4	19052	1
[	**Se**	**78**	**78.125**	ug/L	0.923	1	10195	58358	1
[	**Mo**	**98**	**20.752**	ug/L	0.205	0	52	113262	0
	Y	**89**		ug/L			415847	719722	1
	Kr	**83**		ug/L			575	746	2
[>	**In**	**115**		ug/L			1214777	1173762	0
[	**Ag**	**107**	**20.203**	ug/L	0.017	0	30	273432	0
[	**Cd**	**111**	**29.001**	ug/L	0.109	0	92	164841	0
[	**Cd**	**114**	**28.770**	ug/L	0.389	1	57	407890	0
[	**Sb**	**121**	**2.338**	ug/L	0.034	1	341	40073	2
[	**Sb**	**123**	**2.296**	ug/L	0.040	1	251	29694	2
[	**Ba**	**135**	**194.693**	ug/L	0.737	0	21	955443	0
[	**Ba**	**137**	**194.404**	ug/L	2.345	1	36	1649547	1
[>	**Tb**	**159**		ug/L			1265870	1268092	1
[	**Tl**	**205**	**21.544**	ug/L	0.147	0	327	958304	1
[	**Pb**	**208**	**337.260**	ug/L	1.749	0	254	18724850	0
[	**Bi**	**209**		ug/L			3311562	3111808	0
[	**Th**	**232**	**22.256**	ug/L	0.091	0	1377	1220245	0
[	**U**	**238**	**26.393**	ug/L	0.221	0	55	1539224	0

VS18 : 00268

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:36:19
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\112112.cal

Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1661408	0
[	Be	9	27.550	ug/L	0.501	1	12	135162	1
	C	13		ug/L			162544	225290	1
	Cl	37		ug/L			5197829	5358331	3
[>	Sc	45		ug/L			1160558	1255063	1
[	V	51	41.110	ug/L	1.055	2	9051	1024722	3
[	V-1	51	41.368	ug/L	1.170	2	176	1021400	3
[	Cr	52	37.648	ug/L	0.291	0	26831	771449	1
[	Cr	53	38.561	ug/L	1.232	3	193	86111	2
[	Mn	55	767.237	ug/L	21.005	2	507	21863553	1
[	Co	59	27.786	ug/L	0.680	2	104	538119	0
[>	Ge	72		ug/L			627564	617892	0
[	Ni	60	35.021	ug/L	0.513	1	31	134286	1
[	Ni	62	37.059	ug/L	1.142	3	96	19508	3
[	Cu	63	57.890	ug/L	0.387	0	156	489594	0
[	Cu	65	58.261	ug/L	1.399	2	40	218619	2
[	Zn	66	352.354	ug/L	4.445	1	238	819916	1
[	Zn	67	328.845	ug/L	5.136	1	34	132705	1
[	Zn	68	330.107	ug/L	5.719	1	277	574491	1
[	As	75	35.985	ug/L	0.238	0	199	76655	0
[	As-1	75	35.576	ug/L	0.485	1	9984	85185	1
[	Se	82	81.755	ug/L	0.615	0	-4	20142	0
[	Se	78	81.061	ug/L	0.608	0	10195	60260	0
[	Mo	98	24.548	ug/L	0.576	2	52	134174	2
	Y	89		ug/L			415847	709880	1
	Kr	83		ug/L			575	764	5
[>	In	115		ug/L			1214777	1169239	0
[	Ag	107	23.346	ug/L	0.178	0	30	314748	0
[	Cd	111	30.094	ug/L	0.497	1	92	170383	1
[	Cd	114	30.141	ug/L	0.248	0	57	425723	1
[	Sb	121	24.512	ug/L	0.173	0	341	415435	0
[	Sb	123	24.486	ug/L	0.228	0	251	313082	0
[	Ba	135	192.802	ug/L	2.400	1	21	942525	1
[	Ba	137	191.525	ug/L	0.919	0	36	1618876	0
[>	Tb	159		ug/L			1265870	1279729	0
[	Tl	205	23.071	ug/L	0.316	1	327	1035498	0
[	Pb	208	319.805	ug/L	5.224	1	254	17917555	0
[	Bi	209		ug/L			3311562	3113887	0
[	Th	232	25.247	ug/L	0.278	1	1377	1396761	0
[	U	238	27.401	ug/L	0.298	1	55	1612727	1

ICP-MS Quantitative Analysis - Summary Report

rr V, Cr, Co, Pb, Zn (100x)
Ag (20x)

Sample ID: VS18 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:40:26
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1731801	0
[	Be	9	0.683	ug/L	0.015	2	12	3501	1
	C	13		ug/L			162544	206231	1
	Cl	37		ug/L			5197829	5293276	0
[>	Sc	45		ug/L			1160558	1435876	0
[	V	51	63.558	ug/L	2.773	4	9051	1805913	3
[	V-1	51	59.825	ug/L	2.272	3	176	1689522	3
[	Cr	52	140.438	ug/L	3.587	2	26831	3201603	2
[	Cr	53	127.220	ug/L	1.731	1	193	324559	1
[	Mn	55	890.697	ug/L	11.545	1	507	29044468	1
[	Co	59	18.242	ug/L	0.428	2	104	404292	1
[>	Ge	72		ug/L			627564	592854	1
[	Ni	60	84.823	ug/L	1.706	2	31	312003	1
[	Ni	62	92.284	ug/L	2.278	2	96	46468	2
[	Cu	63	62.716	ug/L	1.120	1	156	508914	2
[	Cu	65	63.511	ug/L	0.552	0	40	228678	2
[	Zn	66	733.871	ug/L	28.091	3	238	1637785	2
[	Zn	67	676.428	ug/L	2.260	0	34	261870	1
[	Zn	68	704.866	ug/L	8.538	1	277	1176731	2
[	As	75	39.189	ug/L	0.601	1	199	80070	0
[	As-1	75	39.343	ug/L	0.682	1	9984	89378	0
[	Se	82	0.289	ug/L	0.054	18	-4	64	21
[	Se	78	1.018	ug/L	0.318	31	10195	10234	0
[	Mo	98	0.490	ug/L	0.006	1	52	2618	2
	Y	89		ug/L			415847	645250	1
	Kr	83		ug/L			575	1006	6
[>	In	115		ug/L			1214777	1204354	1
[	Ag	107	0.837	ug/L	0.017	2	30	11645	0
[	Cd	111	14.079	ug/L	0.173	1	92	82155	1
[	Cd	114	14.072	ug/L	0.260	1	57	204714	0
[	Sb	121	0.324	ug/L	0.011	3	341	5997	3
[	Sb	123	0.329	ug/L	0.002	0	251	4580	2
[	Ba	135	561.064	ug/L	1.236	0	21	2825172	1
[	Ba	137	559.454	ug/L	8.003	1	36	4870381	1
[>	Tb	159		ug/L			1265870	1285658	0
[	Tl	205	0.962	ug/L	0.015	1	327	43712	2
[	Pb	208	886.224	ug/L	2.374	0	254	49886585	0
[	Bi	209		ug/L			3311562	2999284	0
[	Th	232	4.368	ug/L	0.024	0	1377	243958	0
[	U	238	0.631	ug/L	0.013	2	55	37388	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:45:38
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\112112.cal

rr Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1690015	1
[	Be	9	0.625	ug/L	0.020	3	12	3127	1
	C	13		ug/L			162544	219258	2
	Cl	37		ug/L			5197829	5255894	0
[>	Sc	45		ug/L			1160558	1293964	1
[	V	51	36.850	ug/L	1.012	2	9051	947834	2
[	V-1	51	37.044	ug/L	1.129	3	176	942803	2
[	Cr	52	44.348	ug/L	0.614	1	26831	931537	0
[	Cr	53	45.036	ug/L	1.405	3	193	103654	1
[	Mn	55	1493.775	ug/L	51.128	3	507	43890978	3
[	Co	59	10.145	ug/L	0.079	0	104	202694	1
[>	Ge	72		ug/L			627564	607473	1
[	Ni	60	21.140	ug/L	0.330	1	31	79708	2
[	Ni	62	24.300	ug/L	0.374	1	96	12606	0
[	Cu	63	32.770	ug/L	0.234	0	156	272527	0
[	Cu	65	33.938	ug/L	0.760	2	40	125204	1
[	Zn	66	792.994	ug/L	10.993	1	238	1813849	1
[	Zn	67	724.438	ug/L	23.593	3	34	287361	3
[	Zn	68	775.210	ug/L	27.107	3	277	1325785	2
[	As	75	28.858	ug/L	0.657	2	199	60463	1
[	As-1	75	28.927	ug/L	0.711	2	9984	69891	0
[	Se	82	0.277	ug/L	0.027	9	-4	62	9
[	Se	78	0.559	ug/L	0.246	43	10195	10208	0
[	Mo	98	0.461	ug/L	0.013	2	52	2526	2
	Y	89		ug/L			415847	551218	0
	Kr	83		ug/L			575	826	2
[>	In	115		ug/L			1214777	1217503	0
[	Ag	107	0.439	ug/L	0.012	2	30	6193	2
[	Cd	111	24.483	ug/L	0.345	1	92	144361	1
[	Cd	114	24.367	ug/L	0.025	0	57	358369	0
[	Sb	121	0.398	ug/L	0.004	0	341	7357	0
[	Sb	123	0.410	ug/L	0.013	3	251	5706	2
[	Ba	135	748.128	ug/L	5.096	0	21	3808250	0
[	Ba	137	739.432	ug/L	5.964	0	36	6508033	0
[>	Tb	159		ug/L			1265870	1267094	1
[	Tl	205	0.835	ug/L	0.019	2	327	37413	1
[	Pb	208	1042.481	ug/L	18.327	1	254	57826443	0
[	Bi	209		ug/L			3311562	3088087	0
[	Th	232	3.654	ug/L	0.077	2	1377	201282	0
[	U	238	0.553	ug/L	0.010	1	55	32254	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:49:45
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\112112.cal

rr Cr, Zn. Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1716339	0
[	Be	9	1.569	ug/L	0.027	1	12	7961	2
	C	13		ug/L			162544	195392	0
	Cl	37		ug/L			5197829	5490590	0
[>	Sc	45		ug/L			1160558	1320737	1
[	V	51	76.099	ug/L	1.107	1	9051	1987251	2
[	V-1	51	67.057	ug/L	2.336	3	176	1741658	2
[	Cr	52	435.745	ug/L	6.292	1	26831	9074779	2
[	Cr	53	403.750	ug/L	9.703	2	193	946910	2
[	Mn	55	822.183	ug/L	18.453	2	507	24662883	2
[	Co	59	25.030	ug/L	0.634	2	104	510178	1
[>	Ge	72		ug/L			627564	573957	0
[	Ni	60	184.262	ug/L	1.669	0	31	656225	1
[	Ni	62	187.450	ug/L	2.662	1	96	91298	1
[	Cu	63	51.889	ug/L	0.876	1	156	407625	1
[	Cu	65	53.425	ug/L	0.634	1	40	186225	1
[	Zn	66	337.776	ug/L	3.974	1	238	730078	0
[	Zn	67	458.111	ug/L	8.519	1	34	171702	1
[	Zn	68	428.191	ug/L	2.287	0	277	692134	1
[	As	75	10.704	ug/L	0.043	0	199	21309	1
[	As-1	75	10.744	ug/L	0.063	0	9984	30271	1
[	Se	82	∿ 0.248	ug/L	0.091	36	-4	52	40
[	Se	78	1.012	ug/L	0.146	14	10195	9907	1
[	Mo	98	0.564	ug/L	0.011	1	52	2909	1
	Y	89		ug/L			415847	877714	1
	Kr	83		ug/L			575	1065	3
[>	In	115		ug/L			1214777	1124052	0
[	Ag	107	0.450	ug/L	0.013	2	30	5859	2
[	Cd	111	5.031	ug/L	0.069	1	92	27457	0
[	Cd	114	5.012	ug/L	0.067	1	57	68096	1
[	Sb	121	∿ 0.037	ug/L	0.002	4	341	913	3
[	Sb	123	0.036	ug/L	0.002	6	251	678	3
[	Ba	135	3060.197	ug/L	38.257	1	21	14381693	1
[	Ba	137	3051.160	ug/L	12.810	0	36	24792926	0
[>	Tb	159		ug/L			1265870	1342085	1
[	Tl	205	0.811	ug/L	0.019	2	327	38524	1
[	Pb	208	238.092	ug/L	3.168	1	254	13989489	0
[	Bi	209		ug/L			3311562	2746025	0
[	Th	232	8.231	ug/L	0.167	2	1377	478504	0
[	U	238	0.545	ug/L	0.007	1	55	33674	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR68 C REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:53:53
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\112112.cal

Cr

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1589802	1
[	Be	9	0.004	ug/L	0.000	4	12	31	3
	C	13		ug/L			162544	162016	1
	Cl	37		ug/L			5197829	5880805	1
[>	Sc	45		ug/L			1160558	1155305	2
[	V	51	0.374	ug/L	0.018	4	9051	17500	1
[	V-1	51	0.492	ug/L	0.031	6	176	11345	4
[	Cr	52	0.150	ug/L	0.014	9	26831	29436	1
[	Cr	53	0.569	ug/L	0.056	9	193	1357	6
[	Mn	55	320.436	ug/L	9.329	2	507	8405525	2
[	Co	59	0.081	ug/L	0.001	1	104	1546	3
[>	Ge	72		ug/L			627564	596602	2
[	Ni	60	0.295	ug/L	0.022	7	31	1119	5
[	Ni	62	0.382	ug/L	0.035	9	96	285	4
[	Cu	63	0.887	ug/L	0.012	1	156	7385	1
[	Cu	65	0.218	ug/L	0.003	1	40	827	2
[	Zn	66	1.349	ug/L	0.012	0	238	3256	2
[	Zn	67	1.263	ug/L	0.109	8	34	524	7
[	Zn	68	1.976	ug/L	0.030	1	277	3582	1
[	As	75	0.270	ug/L	0.022	8	199	742	5
[	As-1	75	0.426	ug/L	0.120	28	9984	10361	1
[	Se	82	0.118	ug/L	0.063	53	-4	23	62
[	Se	78	0.636	ug/L	0.384	60	10195	10070	1
[	Mo	98	0.225	ug/L	0.002	1	52	1237	2
	Y	89		ug/L			415847	410536	1
	Kr	83		ug/L			575	536	5
[>	In	115		ug/L			1214777	1102238	0
[	Ag	107	0.001	ug/L	0.001	96	30	38	26
[	Cd	111	0.012	ug/L	0.003	20	92	148	9
[	Cd	114	0.006	ug/L	0.001	13	57	132	9
[	Sb	121	0.067	ug/L	0.003	4	341	1374	2
[	Sb	123	0.069	ug/L	0.002	3	251	1053	2
[	Ba	135	1.619	ug/L	0.144	8	21	7479	9
[	Ba	137	1.634	ug/L	0.130	7	36	13049	8
[>	Tb	159		ug/L			1265870	1181531	0
[	Tl	205	0.009	ug/L	0.002	25	327	663	13
[	Pb	208	0.035	ug/L	0.018	52	254	2052	46
[	Bi	209		ug/L			3311562	3013416	0
[	Th	232	0.018	ug/L	0.001	5	1377	2193	2
[	U	238	0.012	ug/L	0.001	4	55	682	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS04 A REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 21, 2012 16:58:00
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\112112.cal

A5

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1598664	0
[	Be	9	0.004	ug/L	0.000	4	12	32	3
	C	13		ug/L			162544	154677	2
	Cl	37		ug/L			5197829	5077954	2
[>	Sc	45		ug/L			1160558	1132763	1
[	V	51	0.343	ug/L	0.027	7	9051	16468	2
[	V-1	51	0.395	ug/L	0.013	3	176	8959	2
[	Cr	52	0.027	ug/L	0.073	275	26831	26649	3
[	Cr	53	0.210	ug/L	0.023	10	193	610	6
[	Mn	55	190.990	ug/L	2.950	1	507	4914400	3
[	Co	59	0.074	ug/L	0.001	1	104	1390	2
[>	Ge	72		ug/L			627564	591690	1
[	Ni	60	0.194	ug/L	0.010	5	31	743	5
[	Ni	62	0.317	ug/L	0.039	12	96	250	7
[	Cu	63	0.232	ug/L	0.002	1	156	2022	1
[	Cu	65	0.122	ug/L	0.001	0	40	475	2
[	Zn	66	0.629	ug/L	0.028	4	238	1625	2
[	Zn	67	0.908	ug/L	0.049	5	34	383	5
[	Zn	68	1.098	ug/L	0.027	2	277	2091	1
[	As	75	61.947	ug/L	0.875	1	199	126221	1
[	As-1	75	62.283	ug/L	0.859	1	9984	135736	1
[	Se	82	0.081	ug/L	0.073	90	-4	14	116
[	Se	78	0.552	ug/L	0.079	14	10195	9940	1
[	Mo	98	0.193	ug/L	0.011	5	52	1060	4
	Y	89		ug/L			415847	405401	0
	Kr	83		ug/L			575	532	6
[>	In	115		ug/L			1214777	1110123	0
[	Ag	107	0.000	ug/L	0.000	51	30	34	8
[	Cd	111	0.002	ug/L	0.002	132	92	92	11
[	Cd	114	0.000	ug/L	0.001	380	57	55	19
[	Sb	121	0.004	ug/L	0.001	12	341	383	1
[	Sb	123	0.006	ug/L	0.001	22	251	307	4
[	Ba	135	6.918	ug/L	0.061	0	21	32125	0
[	Ba	137	6.735	ug/L	0.109	1	36	54074	1
[>	Tb	159		ug/L			1265870	1193728	1
[	Tl	205	0.000	ug/L	0.000	55	327	326	1
[	Pb	208	0.009	ug/L	0.002	22	254	703	14
[	Bi	209		ug/L			3311562	3112133	0
[	Th	232	-0.011	ug/L	0.002	18	1377	723	14
[	U	238	0.002	ug/L	0.000	5	55	180	4

VS18 : 00274

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 17:02:10
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1570035 ✓	0
[	Be	9	50.643	ug/L	0.164	0	12	234782	0
	C	13		ug/L			162544	147772	0
	Cl	37		ug/L			5197829	5093869	3
[>	Sc	45		ug/L			1160558	1114706 ✓	1
[	V	51	47.134	ug/L	0.735	1	9051	1041989	1
[	V-1	51	47.231	ug/L	1.434	3	176	1035529	2
[	Cr	52	49.655	ug/L	2.053	4	26831	895415	3
[	Cr	53	50.001	ug/L	1.508	3	193	99116	1
[	Mn	55	47.066	ug/L	1.146	2	507	1191644	0
[	Co	59	50.054	ug/L	0.928	1	104	860955	0
[>	Ge	72		ug/L			627564	589403 ✓	1
[	Ni	60	48.492	ug/L	0.934	1	31	177344	1
[	Ni	62	50.561	ug/L	0.550	1	96	25354	0
[	Cu	63	48.834	ug/L	0.595	1	156	393952	0
[	Cu	65	50.775	ug/L	1.505	2	40	181734	2
[	Zn	66	49.922	ug/L	1.051	2	238	110984	1
[	Zn	67	49.710	ug/L	0.497	0	34	19161	0
[	Zn	68	49.197	ug/L	0.300	0	277	81890	0
[	As	75	49.204	ug/L	0.677	1	199	99903	0
[	As-1	75	49.284	ug/L	0.983	1	9984	108938	0
[	Se	82	49.835	ug/L	0.352	0	-4	11709	0
[	Se	78	50.033	ug/L	1.372	2	10195	39139	0
[	Mo	98	47.213	ug/L	0.153	0	52	246115	1
	Y	89		ug/L			415847	404025	0
	Kr	83		ug/L			575	499	2
[>	In	115		ug/L			1214777	1092624 ✓	1
[	Ag	107	44.486	ug/L	1.394	3	30	560255	1
[	Cd	111	49.672	ug/L	0.371	0	92	262756	1
[	Cd	114	50.026	ug/L	0.681	1	57	660145	0
[	Sb	121	49.580	ug/L	0.590	1	341	784858	0
[	Sb	123	49.658	ug/L	1.039	2	251	592990	0
[	Ba	135	49.652	ug/L	0.959	1	21	226795	0
[	Ba	137	49.748	ug/L	0.708	1	36	392922	0
[>	Tb	159		ug/L			1265870	1169994 ✓	1
[	Tl	205	45.877	ug/L	0.482	1	327	1882246	0
[	Pb	208	48.492	ug/L	0.552	1	254	2484033	0
[	Bi	209		ug/L			3311562	3035053	0
[	Th	232	54.561	ug/L	0.965	1	1377	2757836	0
[	U	238	54.340	ug/L	0.702	1	55	2923736	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 21, 2012 17:09:03
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\112112.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1776651	1528218 ✓	0
[	Be	9	0.004	ug/L	0.003	64	12	29	41
	C	13		ug/L			162544	151598	1
	Cl	37		ug/L			5197829	4831115	4
[>	Sc	45		ug/L			1160558	1065517 ✓	1
[	V	51	0.012	ug/L	0.007	63	9051	8550	0
[	V-1	51	0.002	ug/L	0.005	292	176	193	48
[	Cr	52	0.026	ug/L	0.016	62	26831	25061	0
[	Cr	53	-0.010	ug/L	0.010	101	193	159	10
[	Mn	55	0.064	ug/L	0.056	88	507	1994	67
[	Co	59	0.003	ug/L	0.003	82	104	146	27
[>	Ge	72		ug/L			627564	572013 ✓	1
[	Ni	60	0.004	ug/L	0.004	101	31	43	34
[	Ni	62	-0.015	ug/L	0.024	163	96	81	16
[	Cu	63	0.005	ug/L	0.004	82	156	179	16
[	Cu	65	0.005	ug/L	0.005	93	40	55	30
[	Zn	66	0.024	ug/L	0.032	134	238	267	24
[	Zn	67	0.039	ug/L	0.047	121	34	46	37
[	Zn	68	0.031	ug/L	0.008	25	277	303	2
[	As	75	0.028	ug/L	0.016	56	199	235	13
[	As-1	75	0.350	ug/L	0.134	38	9984	9784	1
[	Se	82	0.045	ug/L	0.008	18	-4	6	32
[	Se	78	1.151	ug/L	0.473	41	10195	9950	1
[	Mo	98	0.001	ug/L	0.003	352	52	52	26
	Y	89		ug/L			415847	385954	1
	Kr	83		ug/L			575	530	3
[>	In	115		ug/L			1214777	1040924 ✓	0
[	Ag	107	0.001	ug/L	0.001	76	30	43	30
[	Cd	111	0.002	ug/L	0.001	38	92	87	3
[	Cd	114	0.001	ug/L	0.001	95	57	65	24
[	Sb	121	0.041	ug/L	0.009	21	341	912	14
[	Sb	123	0.040	ug/L	0.004	10	251	665	7
[	Ba	135	0.035	ug/L	0.032	91	21	171	82
[	Ba	137	0.039	ug/L	0.034	87	36	321	78
[>	Tb	159		ug/L			1265870	1083281 ✓	0
[	Tl	205	0.008	ug/L	0.007	83	327	576	42
[	Pb	208	0.033	ug/L	0.027	82	254	1775	72
[	Bi	209		ug/L			3311562	2979030	0
[	Th	232	0.102	ug/L	0.017	16	1377	5941	13
[	U	238	0.005	ug/L	0.004	73	55	305	62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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		↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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 0.225 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	

11-27-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP/(ICP-MS) GFA CVA

Analysis Date: 11.23.12

M2 Nexion	Analyst MH 11-26-12	Peer AH 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

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: 11/23/2012 11:06:01 AM
nd Time: 11/23/2012 11:12:35 AM

lass 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

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

VS18:00311

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

VS18 : 00312

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	u 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	u 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 Tn

	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

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	↓	↓ ✓	↓

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:** 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	↓

AT 11-27-12

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

)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

VS18 : 00358

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

VS18:00361

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

VS18 : 00367

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

VS18 : 00370

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

	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

Mercury Analysis Log

Analyst: DM Date: 11-7-12

Instrument: CETAC Page: 1 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	3MM	1X		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.26	Beg in CUP %R=91 ✓
ICB			-0.01	✓
CCV1			3.49	%R=92 ✓
CCB1			-0.00	✓
CRA			0.10	✓
VS18 MB1			0.01	✓
" MB1SPK			1.90	%R=95 ✓
" A			1.08	
" ADUP			1.05	RPD=2.81 ✓
" ASPK			2.04	%R=96 ✓
" B				
" C				
" D				
" E				
CCV2			3.45	%R=91 ✓
CCB2			0.00	✓
VS18 F				DEL CV OUT
" G				
" H				
" I				
" J				
" K				
" L	↓	↓		↓

Chemical/Reagent ID:

10% $SnCl_2$: MP2391 14% NH_2OH/NaCl: MP2340

Standard ID:

Standard: 2992-7 ICV/CCV: 56-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-17-12

Page: 2 of 10

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VR37 MB1	5mm	1X	0.00	DEL CV out ✓
" MB1SPK			2.04	%R=102 ✓
" A			0.19	
CCV3			1.76	%R=44 LOW X
CCV4			3.63	%R=91 ✓
CCB3			0.00	✓
VS18 F				
" G				
" H				
" I				
" J				
" K				
" L				
VR37 MB1			0.01	✓
" MB1SPK			1.74	%R=87 ✓
" A			0.16	
CCV5			3.59	%R=90 ✓
CCB4			0.00	✓
VR37 ADUP			0.15	✓
" ASPK			1.12	%R=96 ✓
" B				
" C				
" D				
" E				
" F				
" G				
" H				
" I				
CCV6			3.60	%R=90 ✓
CCB5	↓	↓	0.00	✓

11/29/12

Chemical/Reagent ID:

10% $SnCl_2$: MP2391

14% $NH_2OH/NaCl$: MP2340

Standard ID:

Standard: 2992-7

ICV/CCV: SL-18

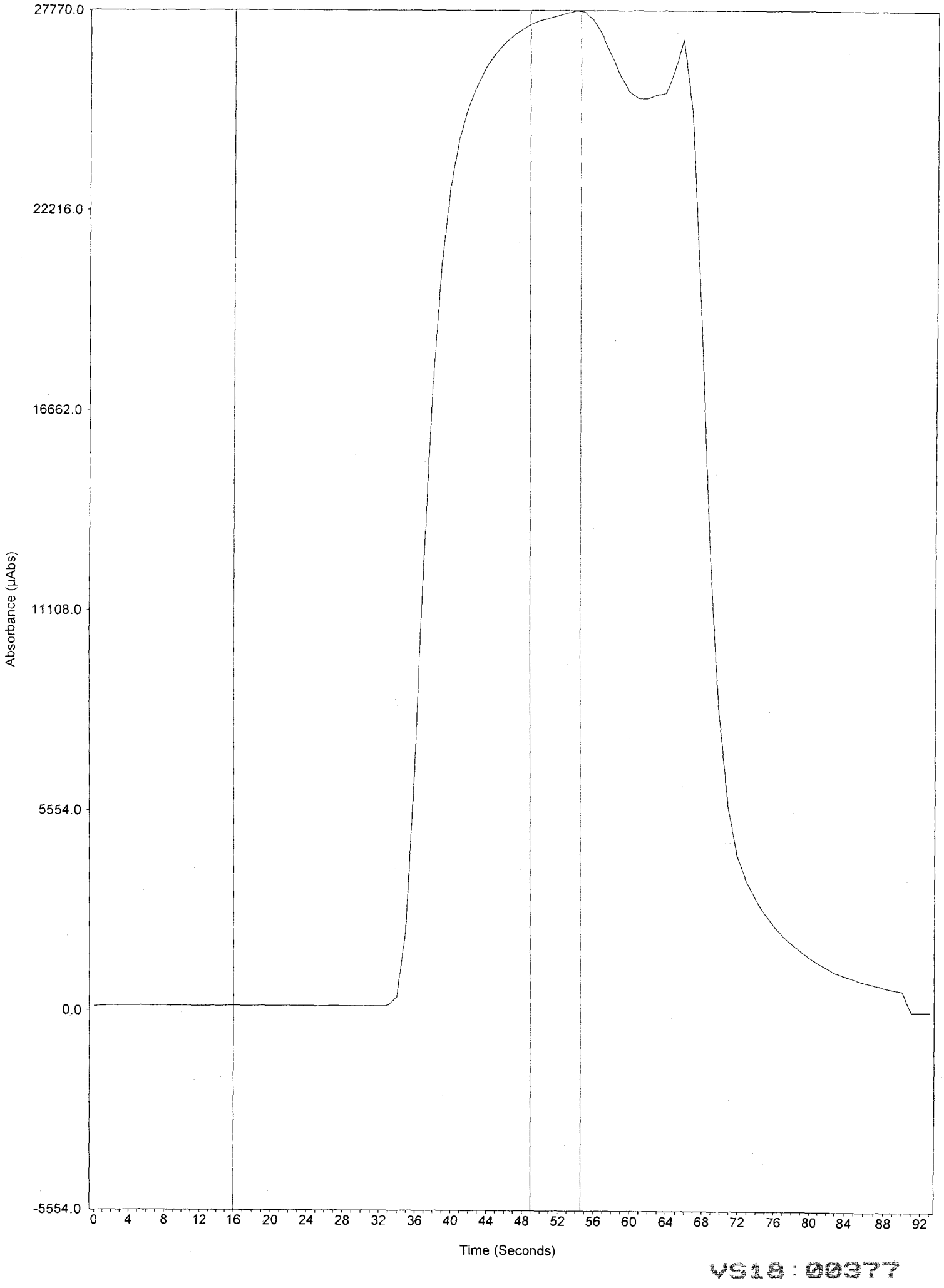
VS18:00375

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) Analysis Date: 11-17-12

	Analyst 11-17 DM	Peer 11-19	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	✓	✓	Sc RUN 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	✓	✓	Sc VR33 ASPK
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysis Notes and CAF's	✓	✓	Sc CAF


27770.0
22216.0
16662.0
11108.0
5554.0
0.0
-5554.0
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)

VS18:00377

CETAC Hg Analysis Report - 12111700.DB - Saturday, November 17, 2012, 2:36:51 PM

✓ 11-19-12 KS

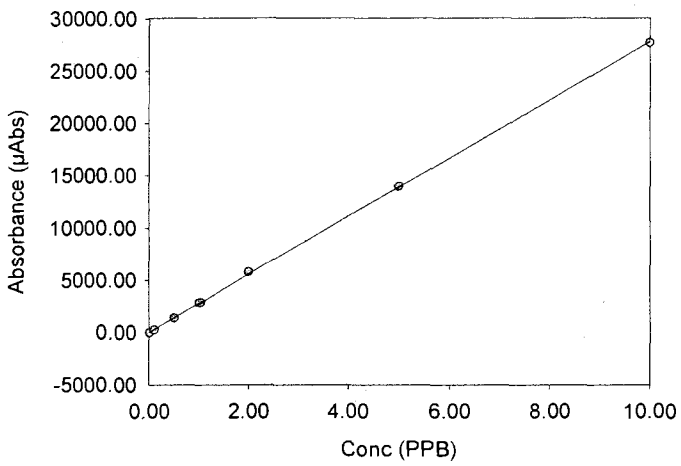
Analyst
Date Started Saturday, November 17, 2012, 06:44:12
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	17-Nov-2012, 06:44	10.00	0.46	27500.00	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	17-Nov-2012, 06:46	0.00	4.58	-33.10	1.00	
Standard #1	17-Nov-2012, 06:47	0.10	0.53	261.00	1.00	
Standard #2	17-Nov-2012, 06:49	0.50	0.24	1400.00	1.00	
Standard #3	17-Nov-2012, 06:51	1.00	0.45	2840.00	1.00	
Standard #4	17-Nov-2012, 06:52	2.00	0.54	5790.00	1.00	
Standard #5	17-Nov-2012, 06:54	5.00	0.29	14000.00	1.00	
Standard #6	17-Nov-2012, 06:56	10.00	0.39	27700.00	1.00	

Calibration Data



Int.	0.000
Slope	2778.015
Correlation	0.99994

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	17-Nov-2012, 07:05	7.26	0.75	20200.00	1.00	
ICB	17-Nov-2012, 07:06	-0.01	13.00	-18.40	1.00	

Beg: in CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:08	3.69	0.28	10200.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:09	-0.00	56.00	-2.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	17-Nov-2012, 07:11	0.10	0.42	267.00	1.00	
VS18 MB1 SMM	17-Nov-2012, 07:13	0.01	13.00	20.30	1.00	
VS18 MB1SPK SMM	17-Nov-2012, 07:14	1.90	0.60	5270.00	1.00	
VS18 A SMM	17-Nov-2012, 07:16	1.08	0.64	3000.00	1.00	
VS18 ADUP SMM	17-Nov-2012, 07:17	1.05	0.46	2910.00	1.00	
VS18 ASPK SMM	17-Nov-2012, 07:19	2.04	0.80	5660.00	1.00	
VS18 B SMM	17-Nov-2012, 07:21	0.70	0.68	1940.00	1.00	
VS18 C SMM	17-Nov-2012, 07:22	0.59	0.86	1640.00	1.00	
VS18 D SMM	17-Nov-2012, 07:24	0.77	0.48	2150.00	1.00	
VS18 E SMM	17-Nov-2012, 07:26	0.71	0.45	1970.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:27	3.65	0.49	10100.00	1.00	

Analyst
Date Started Saturday, November 17, 2012, 07:29:22
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 07:29	0.00	11.10	10.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 07:31	0.31	1.08	873.00	1.00	
VS18 G SMM	17-Nov-2012, 07:32	0.25	0.62	691.00	1.00	
VS18 H SMM	17-Nov-2012, 07:34	1.02	1.42	2840.00	1.00	
VS18 I SMM	17-Nov-2012, 07:35	3.94	0.68	10900.00	1.00	
VS18 J SMM	17-Nov-2012, 07:37	2.53	0.19	7030.00	1.00	
VS18 K SMM	17-Nov-2012, 07:38	1.94	0.22	5380.00	1.00	
VS18 L SMM	17-Nov-2012, 07:40	0.88	0.27	2440.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 07:42	0.00	17.70	12.90	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 07:43	2.04	0.47	5660.00	1.00	
VR37 A SMM	17-Nov-2012, 07:45	0.19	0.58	514.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 07:47	1.76	0.86	4880.00	1.00	Q - LOW %R
QC Standard	17-Nov-2012, 07:58	3.63	0.54	10100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:00	0.00	11.60	11.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS18 F SMM	17-Nov-2012, 08:02	0.30	0.58	846.00	1.00	
VS18 G SMM	17-Nov-2012, 08:03	0.25	0.72	683.00	1.00	
VS18 H SMM	17-Nov-2012, 08:05	1.00	0.78	2780.00	1.00	
VS18 I SMM	17-Nov-2012, 08:06	3.88	0.67	10800.00	1.00	
VS18 J SMM	17-Nov-2012, 08:08	2.42	0.57	6730.00	1.00	
VS18 K SMM	17-Nov-2012, 08:09	1.81	0.67	5030.00	1.00	
VS18 L SMM	17-Nov-2012, 08:11	0.79	0.94	2190.00	1.00	
VR37 MB1 SMM	17-Nov-2012, 08:13	0.01	4.00	19.20	1.00	
VR37 MB1SPK SMM	17-Nov-2012, 08:14	1.74	0.56	4840.00	1.00	
VR37 A SMM	17-Nov-2012, 08:16	0.16	1.44	442.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:18	3.59	0.50	9980.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:19	0.00	13.00	9.15	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VR37 ADUP SMM	17-Nov-2012, 08:21	0.15	0.54	416.00	1.00	
VR37 ASPK SMM	17-Nov-2012, 08:23	1.12	0.62	3120.00	1.00	
VR37 B SMM	17-Nov-2012, 08:24	0.09	0.36	242.00	1.00	
VR37 C SMM	17-Nov-2012, 08:26	0.28	1.03	768.00	1.00	
VR37 D SMM	17-Nov-2012, 08:27	1.41	0.61	3910.00	1.00	
VR37 E SMM	17-Nov-2012, 08:29	2.23	0.82	6190.00	1.00	
VR37 F SMM	17-Nov-2012, 08:31	0.79	0.67	2210.00	1.00	
VR37 G SMM	17-Nov-2012, 08:32	2.39	0.51	6630.00	1.00	
VR37 H SMM	17-Nov-2012, 08:34	3.87	0.37	10800.00	1.00	
VR37 I SMM	17-Nov-2012, 08:35	0.48	0.20	1340.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	17-Nov-2012, 08:37	3.60	0.66	9990.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	17-Nov-2012, 08:39	0.00	124.00	1.77	1.00	

11/20/12

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

Prep Code: SMM Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1213 End Time: 1243

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	2992-7	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	5614	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7477 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: TLM Digested 20.0mL Instrument: CETAC
Analyst: DM Date: 11-15-12
Bath Temp: 95°C Start Time: 1247 End Time: 1447

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	2992-8	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	2992-9	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7477 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: 11-16-12
Bath Temp: 94°C Start Time: 1237 End Time: 1307

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS18 A	1	—	0.716	50.0	11-22 1	YES	
" ADUP	1	—	~~0.744~~ *		1		0.720 * NB 11-16-12
" ASPK	1	—	0.718		1		
" B	1	—	0.747		1		
" C	1	—	0.734		1		
" D	1	—	0.725		1		
" E	1	—	0.739		1		
" F	1	—	0.706		1		
" G	1	—	0.723		1		
" H	1	—	0.745		1		
" I	1	—	0.731		1		
" J	1	—	0.735		1		
" K	1	—	0.708		1		
" L	1	—	0.747		1		
" MB1	—	—	—	↓	1		
" MB1SPK	—	—	—	50.0	1	↓	
			NB 11-16-12				

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 Analysis
Report and Summary QC Forms

ARI Job ID: VS18

W
11-23-12

TOC Solids Prep Log

DATE: 11/16/12 (B)

ANALYST: CDE / UW / KE 20:04

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			13.1443		13.1444	0.1 mg	
VS18 A1		-	13.1009	17.8569	17.2453	87.14%	
VS18 A1 dup		-	13.1873	18.2028	17.5651	87.29%	RPD = 0.17%
VS18 A1 trip		-	13.1807	18.6635	17.9369	86.75%	RSD = 0.32%
VS18 B1		-	13.2222	18.3043	18.1895	97.74%	
VS18 C1		-	13.1325	18.3429	18.2051	97.36%	
VS18 D1		-	13.1015	17.9894	17.8901	97.97%	
VS18 E1		-	13.1794	18.8124	18.6507	97.13%	
VS18 F1		-	13.1217	17.9223	17.8674	98.86%	
VS18 G1		-	13.1562	18.6313	18.6660	100.63%	
VS18 H1		-	13.0724	18.5964	18.6599	101.15%	
VS18 I 1		-	13.1137	16.6753	16.6677	99.79%	
VS18 J 1		-	13.1833	16.7467	16.7994	101.48%	
VS18 K1		-	13.1106	17.1043	17.0577	98.83%	
VS18 L1		-	13.0954	16.7015	16.7957	102.61%	

(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 / UW Date 11-16-12 20:04

Sample Identification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1443	~~8~~	13.1444		
VS18 A1		–	13.1009	17.8569	17.2453		dry Sed
A1dp		–	13.1873	18.2028	17.5651		
A1tp		–	13.1807	18.6635	17.9369		
B1		–	13.2222	18.3043	18.1895		
C1		–	13.1325	18.3429	18.2051		
D1		–	13.1015	17.9894	17.8901		
E1		–	13.1794	18.8124	18.6507		
F1		–	13.1217	17.9223	17.8674		
G1		–	13.1562	18.6313	18.6660		
H1		–	13.0724	18.5964	18.6599		
I1		–	13.1137	16.6753	16.6677		
J1		–	13.1833	16.7467	16.7994		
K1		–	13.1106	17.1043	17.0577		
L1		–	13.0954	16.7015	16.7957		

11-16-12

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: 11/16/2012
ANALYST: CDE / RR (B) 20:04

Instrumentation

Drying Ovens: 12
Muffle Furnace: NA
Analytical Balance: 1123230597

Batch drying time		
record times as mm/dd/yy hh:mm		
11/16/2012 20:04	date/time in oven	CDE
11/17/2012 13:17	date/time out	RR
elapsed hrs =	17.2	

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	11/16/12 18:17	11/16/12 17:44	11/17/12 13:33					
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			1.1008	1.1004			0.00							
VS18 A1		6.6781	1.0857	5.7889			4.70	84.1%						
VS18 A1 dup		6.6218	1.1072	5.7639			4.66	84.4%						
VS18 A1 trp		6.7185	1.0977	5.8347			4.74	84.3%						
VS18 B1		6.5694	1.0810	6.2694			5.19	94.5%						
VS18 C1		6.5794	1.0975	6.2978			5.20	94.9%						
VS18 D1		6.9511	1.0932	6.6717			5.58	95.2%						
VS18 E1		6.5890	1.0799	6.2929			5.21	94.6%						
VS18 F1		6.9038	1.1039	6.6756			5.57	96.1%						
VS18 G1		6.1338	1.0853	6.0409			4.96	98.2%						
VS18 H1		6.8687	1.1169	6.7939			5.68	98.7%						
VS18 I 1		6.5131	1.1050	6.2982			5.19	96.0%						
VS18 J1		6.0689	1.0850	5.9398			4.85	97.4%						
VS18 K1		6.1815	1.0605	5.9273			4.87	95.0%						
VS18 L1		6.4040	1.0965	6.2972			5.20	98.0%						

VS18:00386

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

Analyst: RL / CDL	Date: 11-16-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 20:04	Time Out of Oven: 11/17/12 13:17	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:			11/17/12 13:33						
Cal Weight (10.0000):			10.0000						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	23	Ø	1.1008	1.1004						
VSI8 A1	24	6.6781	1.0857	5.7889						
A1 dp	25	6.6218	1.1072	5.7639						
A1 TT	26	6.7185	1.0977	5.8347						
B1	27	6.5694	1.0810	6.2694						
C1	28	6.5794	1.0975	6.2978						
D1	29	6.9511	1.0932	6.6717						
E1	30	6.5890	1.0799	6.2929						
F1	31	6.9038	1.1039	6.67756						
G1	32	6.1338	1.0853	6.0409						
H1	33	6.8687	1.1169	6.7939						
I1	34	6.5131	1.1050	6.2982						
J1	35	6.0689	1.0850	5.9398						
K1	36	6.1815	1.0605	5.9273						
L1	37	6.4040	1.0965	6.2972						
				11-16-12						

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%

VS18 : 00388

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	20.01	5.27		
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			
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	(1) 6.21	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 E10	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	20	20	20.2	6.18			
L1	10	20	20.2	6.18			
US23 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			
US23 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			
US18 B1	20	~~20~~ 30	20.3	6.15			
pH 7 Buffer		20.3	20.5	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	~~20.43~~	6.10			
US18 A1	20	20	~~20.43~~	3.81			
DA1	20	20 (1)	~~20.4~~	3.80			
B1	20	20	20.3	6.69			
C1	20	20 (3)	~~20.3~~ (1) ~~6.30~~	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 (4)			
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 C1	5.26	5.27		SB1	20.1
		DI C1	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
		DI A1	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 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	Temperature
LW	12110	ICV	7.03	7.03			20.2
		VT62A1	9.89	9.90 →	6.95	6.95	19.2
		~~I-[illegible]~~ (W)					
		CCV	7.03	7.03			20.2
(W)	10:28 cont	VS19 H'	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
		VS20 A'	6.10	6.11			20.0
		B'	6.13	6.14			20.0
		~~CCV~~ (1) 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
		VS22 A'	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	Temp-erature
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
		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
		~~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
		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	Temperature
		~~US~~ ~~ICV~~ ~~CCV~~					
(W)	10:28	US18 B'	6.15	6.15			20.2
		CCV	~~6.795~~ (1)	~~6.805~~ 7.05	50.1	pH	20.5
		US18 A'	6.45	6.47			20.3
		DUP 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	5.49	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	~~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

TOC, Solids Data Analysis

DATE: 11/27/2012

Instrument: Apollo 1 — ANALYST: KE 7:28

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
42.0	50.1	75.0	43.2			45.1	9.6%	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	947	947	*94.70%*
Blank				1.00		40.0	-25.22	-25	*Blank OK*
NIST 1941B				1.00		1.7	28120	28,120	*94.05%*
Silica Blanks 1				1.00		41.9	42.00	42	*Low Scale*
Silica Blanks 2				1.00		40.1	50.07	50	*Low Scale*
Silica Blanks 3				1.00		40.0	74.99	75	*Low Scale*
Silica Blanks 4				1.00		37.9	43.22	43	*Low Scale*
VR36 A1	24.3	236.6	89.73%	9.74		2.3	9938	96,369	*Range OK!*
VR36 B1	20.4	200.7	89.84%	9.84		2.8	7685	75,208	*Range OK!*
VR36 C1	21.8	206.0	89.42%	9.45		3.6	4352	40,743	*Range OK!*
VR36 D1				1.00		0.8	73869	73,869	*Range OK!*
VR36 E1				1.00		1.1	9055	9,055	*Range OK!*
CCV				1.00		40.0	904	904	*90.40%*
Blank				1.00		40.0	30.56	31	*Blank OK*
VR36 F1				1.00		2.2	6092	6,092	*Range OK!*
VR36 G1				1.00		3.2	2748	2,748	*Range OK!*
VR36 H1	15.5	153.6	89.91%	9.91		2.0	5887	57,936	*Range OK!*

VS18 : 00396

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
~~VR36 I 1 trip~~	~~11.2~~	~~108.5~~	~~89.68%~~	~~9.69~~		~~1.5~~	~~5533~~	~~53,209~~	~~Range OK!~~
VR36 I 1	11.2	108.5	89.68%	9.69		1.7	3908	37,467	*Low Scale*
VR36 I 1 dup	11.4	109.5	89.59%	9.61		1.7	4392	41,798	*RPD=10.9%*
VR36 I 1 trp	11.7	113.4	89.68%	9.69		1.6	5169	49,708	*RSD=14.4%*
VR36 I 1 ms	11.2	108.5	89.68%	9.69	10	1.7	21062	203,646	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.2*	*mg samp=*	*142,463*	*ppm*		*117%*	
VR36 J 1	12.2	119.1	89.76%	9.76		2.1	10676	103,827	*Range OK!*
VR36 K1	11.0	104.9	89.51%	9.54		2.3	18038	171,632	*Range OK!*
CCV				1.00		40.0	950	950	*95.00%*
Blank				1.00		40.0	-24.85	-25	*Blank OK*
VR36 L1	11.2	107.2	89.55%	9.57		2.9	6554	62,345	*Range OK!*
VR37 A1				1.00		1.0	23264	23,264	*Range OK!*
VR37 B1				1.00		2.8	7675	7,675	*Range OK!*
VR37 C1				1.00		0.9	17947	17,947	*Range OK!*
VR37 D1	27.8	270.6	89.73%	9.73		2.0	7575	73,340	*Range OK!*
VR37 E1	15.6	150.5	89.63%	9.65		2.0	18254	175,714	*Range OK!*
VR37 F1				1.00		0.9	17585	17,585	*Range OK!*
VR37 G1	15.6	153.8	89.86%	9.86		1.8	8131	79,764	*Range OK!*
VR37 H1				1.00		0.9	36305	36,305	*Range OK!*
VR37 I 1				1.00		0.8	12374	12,374	*Range OK!*
CCV				1.00		40.0	974	974	*97.40%*
Blank				1.00		40.0	-18.01	-18	*Blank OK*
VR37 J 1	19.4	191.4	89.86%	9.87		1.7	6548	64,203	*Range OK!*
VR37 K1	13.5	133.1	89.86%	9.86		2.3	19970	196,490	*Range OK!*
VR37 L1	14.3	141.8	89.92%	9.92		2.3	9114	89,973	*Range OK!*
VR37 M1	19.7	186.8	89.45%	9.48		2.3	11212	105,932	*Range OK!*
VR37 N1	15.8	151.6	89.58%	9.59		1.9	8726	83,338	*Range OK!*
VR37 O1	24.1	235.3	89.76%	9.76		3.0	4123	39,860	*Range OK!*
VR82 A1				1.00		0.9	67885	67,885	*Range OK!*
VR82 B1				1.00		1.1	65630	65,630	*Range OK!*
VR82 C1				1.00		1.5	26143	26,143	*Range OK!*
VR82 D.1				1.00		0.8	53741	53,741	*Range OK!*
CCV				1.00		40.0	1049	1,049	*104.90%*
Blank				1.00		40.0	-20.87	-21	*Blank OK*
VR82 E1				1.00		0.9	46834	46,834	*Range OK!*
VR82 F1				1.00		1.1	45568	45,568	*Range OK!*
VR82 G1				1.00		0.9	67950	67,950	*Range OK!*
VR82 H1				1.00		0.8	31984	31,984	*Range OK!*
VR82 I 1				1.00		0.9	50718	50,718	*Range OK!*
VS18 A1	19.7	193.6	89.82%	9.83		2.4	6724	65,681	*Range OK!*
VS18 A1 dup	19.1	190.7	89.98%	9.98		2.7	6625	65,741	*RPD=0.1%*
VS18 A1 trp	19.3	190.8	89.88%	9.89		2.3	7262	71,391	*RSD=4.9%*
VS18 A1 ms	19.7	193.6	89.82%	9.83	10	2.6	16037	157,204	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*94,494*	*ppm*		*97%*	

Sample Data

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

Sample ID	Dilution Data				Spike (µL Std)	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
VS18 B1	14.3	129.1	88.92%	9.03		2.3	6429	57,679	*Range OK!*
CCV				1.00		40.0	1081	1,081	*108.10%*
Blank				1.00		40.0	-21.37	-21	*Blank OK*
VS18 C1	18.7	180.9	89.66%	9.67		2.8	6094	58,561	*Range OK!*
VS18 D1	12.6	123.1	89.76%	9.77		2.3	7343	71,344	*Range OK!*
VS18 E1	15.1	149.6	89.91%	9.91		2.5	7140	70,336	*Range OK!*
VS18 F1	18.2	180.8	89.93%	9.93		2.3	5104	50,301	*Range OK!*
VS19 G1	16.9	165.9	89.81%	9.82		2.5	4722	45,956	*Range OK!*
VS18 H1				1.00		0.9	34287	34,287	*Range OK!*
VS18 I 1				1.00		0.8	49897	49,897	*Range OK!*
VS18 J 1				1.00		1.0	11587	11,587	*Range OK!*
VS18 K1	20.2	195.7	89.68%	9.69		2.7	4066	39,000	*Range OK!*
VS18 L1	11.8	108.8	89.15%	9.22		3.0	3978	36,308	*Range OK!*
NIST 1941B				1.00		1.5	34988	34,986	*117.02%*
CCV				1.00		40.0	999	999	*99.90%*
Blank				1.00		40.0	-13.61	-14	*Blank OK*

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(1) 11-27-12 (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:	11-27-12
Verification:	ERA – 0409-12-01		5000 to 1000 for CVS		Time:	7:28
SRM:	NBS – (1941b) or 8704		Method: PSEP 1986-MOD		Balance ID	B14645145
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			
SB	1			41.9			
	2			40.1			
	3			40.0			
	4			37.9			
VR36	A1	24.3	236.6	(2032.3)			
	B1	20.4	200.7	2.8			
	C1	21.8	206.0	3.6			
	D1			0.8			
	E1			1.1			
CCV				40			
CCB				40			
VR36	F1			2.2			
	G1			3.2			
	H1	15.5	153.6	2.0			
	I1	(22.11.2)	108.5	1.5			Trip Motor ig
	I1	(22.11.2)	108.5	1.7			
	RI1	11.4	109.5	1.7			
	DI1	11.7	113.4	1.6			
	MSI1	11.2	108.5	1.7	2500	10	
	J1	12.2	119.1	2.1			
	K1	11.0	104.9	2.3			
CCV				40			
CCB				40			
VR36	L1	11.2	107.2	2.9			
VR37	A1			1.0			
	B1			2.8			
	C1			0.9			
	D1	27.8	270.6	2.0			
	E1	15.6	150.5	2.0			

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① 11-27-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler		
Standards:	Source	Conc (ppm)	Analyst:	(W)	
Calibration:	ARI - C0128-03	5000	Date:	11-27-12	
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:28	
SRM:	NBS (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B14695 4145	
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VR37 F1			0.9			
G1	15.6	153.8	1.8			
H1			0.9			
I1			0.8			
CCV			40			
CCB			40			
VR37 J1	19.4	191.4	1.7			
K1	13.5	139.1	2.3			
L1	14.3	141.8	2.3			
M1	19.7	186.8	2.3			
N1	15.8	157.6	1.9			
O1	24.1	235.3	3.0			
VR82 A1			0.9			
B1			1.1			
C1			1.5			
D1			0.8			
CCV			40			
CCB			40			
VR82 E1			0.9			
F1			1.1			
G1			0.9			
H1			0.8			
I1			0.9			
VS18 A1	19.7	193.6	2.4			
SPA1	19.1	190.7	2.7			
SPA1	19.3	190.8	2.3			
MSA1	19.7	193.6	2.6	2500	10	
B1	14.3	129.1	2.3			
CCV	1		40			
CCB			40			
VS18 C1	18.7	180.9	①~~2.2~~	2.8		
D1	12.6	123.1	①~~3.0~~	2.3		

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(1) 11-27-12 (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:	11-27-12
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:28
SRM:	NBS (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B14645445
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VS18 E1	15.1	149.6	2.5			
F1	18.2	180.8	2.3			
G1	16.9	165.9	2.5			
H1			0.9			
I1			0.8			
J1			1.0			
K1	20.2	195.7	2.7			
L1	11.8	108.8	3.0			
NBS 1941 B			1.5			
CCV			40			
CCB			40			

11-27-12 (W)

VS18:00401

11-28-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/27 17:50:46

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270727
Timestamp: 2012/11/27 07:30
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	946.6590	37.8664	5233503	8.115	9.115	146

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270735
Timestamp: 2012/11/27 07:40
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.2207	-1.0088	28226	7.996	8.065	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270748
Timestamp: 2012/11/27 07:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28119.7227	47.8035	6564062	7.933	8.933	210

Sample ID: Silica Blank 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270814
Timestamp: 2012/11/27 08:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	42.0022	1.7599	235644	7.931	8.928	60

Sample ID: Silica Blank 2
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270822
Timestamp: 2012/11/27 08:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0711	2.0079	268846	7.918	8.916	62

Sample ID: Silica Blank 3
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270831
Timestamp: 2012/11/27 08:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	74.9865	2.9995	401619	8.027	9.023	65

Sample ID: Silica Blank 4
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11270840
Timestamp: 2012/11/27 08:42
Sample Type: Sample

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

VS18:00402

1	43.2200	1.6380	219329	7.980	8.976	60

Sample ID: VR36 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11270854
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 08:58
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9938.1826	22.8578	3060597	8.077	9.074	131

Sample ID: VR36 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11270903
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:06
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7684.9502	21.5179	2881180	8.144	9.144	116

Sample ID: VR36 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11270914
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:17
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4351.8306	15.6666	2097712	8.414	9.411	109

Sample ID: VR36 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11270919
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:23
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	73868.9297	59.0951	7912671	8.347	9.346	170

Sample ID: VR36 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11270925
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:28
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9054.8008	9.9603	1333653	8.435	9.433	112

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11270932
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:35
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	903.9148	36.1566	5004570	8.564	9.563	134

Sample ID: ICB/CCB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11270940
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 09:43
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30.5576	1.2223	326968	8.397	9.391	92

Sample ID: VR36 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270948
Timestamp: 2012/11/27 09:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6092.3496	13.4032	1794646	8.341	9.339	131

Sample ID: VR36 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11270956
Timestamp: 2012/11/27 09:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2748.3540	8.7947	1177590	8.267	9.265	127

Sample ID: VR36 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271003
Timestamp: 2012/11/27 10:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5887.0493	11.7741	1576518	8.300	9.295	96

Sample ID: VR36 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

11-27-12 was Trip Not original Run (R)

Mode: TOC
Filename: 11271007
Timestamp: 2012/11/27 10:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5533.1221	8.2997	1111304	8.368	9.363	91

Sample ID: VR36 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271014
Timestamp: 2012/11/27 10:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3907.7053	6.6431	889492	8.343	9.339	82

Sample ID: VR36 I 1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271021
Timestamp: 2012/11/27 10:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4392.1021	7.4666	999753	8.354	9.343	90

Sample ID: VR36 I 1 FA
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271026
Timestamp: 2012/11/27 10:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5169.2007	8.2707	1107426	8.401	9.400	92

Sample ID: VR36 I 1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271034
Timestamp: 2012/11/27 10:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21062.4961	35.8062	4794354	8.622	9.622	133

Sample ID: VR36 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271051
Timestamp: 2012/11/27 10:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10675.9062	22.4194	3001894	8.428	9.426	125

Sample ID: VR36 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271058
Timestamp: 2012/11/27 11:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18038.0547	41.4875	5555062	8.519	9.517	138

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271120
Timestamp: 2012/11/27 11:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	950.4704	38.0188	5253917	8.516	9.515	133

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271126
Timestamp: 2012/11/27 11:31
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-24.8518	-0.9941	30202	8.271	8.197	120

Last Message: Low Sample Detected

Sample ID: VR36 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271136
Timestamp: 2012/11/27 11:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6554.2153	19.0072	2545013	8.196	9.196	121

Sample ID: VR37 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271141
Timestamp: 2012/11/27 11:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23264.4316	23.2644	3115041	8.136	9.134	131

Sample ID: VR37 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11271149
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 11:52
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7675.5200	21.4915	2877645	7.958	8.953	144

Sample ID: VR37 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11271157
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 12:00
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17946.6367	16.1520	2162703	7.868	8.863	135

Sample ID: VR37 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11271205
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 12:07
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7574.7007	15.1494	2028462	7.881	8.878	108

Sample ID: VR37 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11271214
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 12:17
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18254.4180	36.5088	4888429	7.944	8.942	134

Sample ID: VR37 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11271221
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 12:24
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17585.3711	15.8268	2119168	8.006	9.003	116

Sample ID: VR37 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11271228
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 12:30
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8131.3179	14.6364	1959769	8.048	9.044	105

Sample ID: VR37 H1 | Mode: TOC
Method: Boat Sampler | Filename: 11271234
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 12:37
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36305.0430	32.6745	4375028	7.937	8.936	141

Sample ID: VR37 I 1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271248
Timestamp: 2012/11/27 12:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12373.9385	9.8992	1325468	8.022	9.021	120

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271256
Timestamp: 2012/11/27 13:00
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	974.3135	38.9725	5381618	8.018	9.017	162

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271302
Timestamp: 2012/11/27 13:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-18.0115	-0.7205	66838	7.917	7.990	120

Last Message: Low Sample Detected

Sample ID: VR37 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271312
Timestamp: 2012/11/27 13:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6547.6982	11.1311	1490421	7.829	8.827	102

Sample ID: VR37 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271317
Timestamp: 2012/11/27 13:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19969.6934	45.9303	6149936	7.755	8.753	149

Sample ID: VR37 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271324
Timestamp: 2012/11/27 13:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9113.7285	20.9616	2806695	7.737	8.736	119

Sample ID: VR37 M1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271330
Timestamp: 2012/11/27 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11211.5146	25.7865	3452737	7.648	8.642	123

Sample ID: VR37 N1 | Mode: TOC
Method: Boat Sampler | Filename: 11271337
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 13:41
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8726.1182	16.5796	2219965	7.559	8.557	114

Sample ID: VR37 O1 | Mode: TOC
Method: Boat Sampler | Filename: 11271348
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 13:50
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4122.7285	12.3682	1656065	7.716	8.713	105

Sample ID: VR82 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11271353
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 13:57
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67885.3984	61.0969	8180696	7.656	8.652	157

Sample ID: VR82 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11271401
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:05
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	65630.3828	72.1934	9666494	7.764	8.762	159

Sample ID: VR82 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11271431
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:35
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26142.6777	39.2140	5250645	7.691	8.687	146

Sample ID: VR82 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11271439
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:43
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53740.7266	42.9926	5756584	7.530	8.528	139

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11271448
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 14:53
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1049.3702	41.9748	5783612	7.496	8.495	154

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271456
Timestamp: 2012/11/27 14:58
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-20.8714	-0.8349	51521	7.588	8.588	42

Sample ID: VR82 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271501
Timestamp: 2012/11/27 15:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46834.2930	42.1509	5643881	7.515	8.512	154

Sample ID: VR82 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271507
Timestamp: 2012/11/27 15:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	45568.0430	50.1248	6711575	7.576	8.575	152

Sample ID: VR82 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271514
Timestamp: 2012/11/27 15:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67949.8438	61.1549	8188461	7.368	8.367	158

Sample ID: VR82 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271521
Timestamp: 2012/11/27 15:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31983.8047	25.5870	3426032	7.480	8.478	121

Sample ID: VR82 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271528
Timestamp: 2012/11/27 15:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50718.0430	45.6462	6111902	7.290	8.289	145

Sample ID: VS18 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11271533
Timestamp: 2012/11/27 15:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6723.7822	16.1371	2160709	7.232	8.231	111

Sample ID: VS18 A1 DUP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271541
Timestamp: 2012/11/27 15:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6625.1787	17.8880	2395150	7.255	8.247	116

Sample ID: VS18 A1 DUP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271547
Timestamp: 2012/11/27 15:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7262.0435	16.7027	2236444	7.300	8.298	112

Sample ID: VS18 A1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271553
Timestamp: 2012/11/27 15:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16036.6309	41.6952	5582874	7.469	8.466	139

Sample ID: VS18 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271558
Timestamp: 2012/11/27 16:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6428.7129	14.7860	1979809	7.424	8.422	110

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271625
Timestamp: 2012/11/27 16:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1080.6938	43.2278	5951378	7.381	8.380	143

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271630
Timestamp: 2012/11/27 16:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.3679	-0.8547	48861	7.252	7.284	120

Last Message: Low Sample Detected

Sample ID: VS18 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271635
Timestamp: 2012/11/27 16:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6094.0137	17.0632	2284719	7.269	8.267	119

Sample ID: VS18 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11271640
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 16:43
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7342.7754	16.8884	2261306	7.285	8.283	115

Sample ID: VS18 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11271645
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 16:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7139.5649	17.8489	2389919	7.340	8.339	110

Sample ID: VS18 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11271650
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 16:53
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5104.0669	11.7394	1571866	7.377	8.374	99

Sample ID: VS18 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11271655
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 16:57
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4722.4731	11.8062	1580814	7.342	8.342	98

Sample ID: VS18 H1 | Mode: TOC
Method: Boat Sampler | Filename: 11271700
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 17:04
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34286.5820	30.8579	4131788	7.229	8.227	139

Sample ID: VS18 I1 | Mode: TOC
Method: Boat Sampler | Filename: 11271709
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 17:12
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49896.7617	39.9174	5344828	7.226	8.224	158

Sample ID: VS18 J1 | Mode: TOC
Method: Boat Sampler | Filename: 11271714
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/27 17:18
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11587.3613	11.5874	1551515	7.320	8.315	113

Sample ID: VS18 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271720
Timestamp: 2012/11/27 17:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4065.6396	10.9772	1469819	7.332	8.330	103

Sample ID: VS18 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271726
Timestamp: 2012/11/27 17:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3977.6409	11.9329	1597784	7.356	8.353	111

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271731
Timestamp: 2012/11/27 17:36
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34988.3242	52.4825	7190561	7.455	8.454	205

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271737
Timestamp: 2012/11/27 17:41
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	999.0364	39.9615	5514030	7.369	8.369	149

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11271744
Timestamp: 2012/11/27 17:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-13.6122	-0.5445	90400	7.535	8.533	54

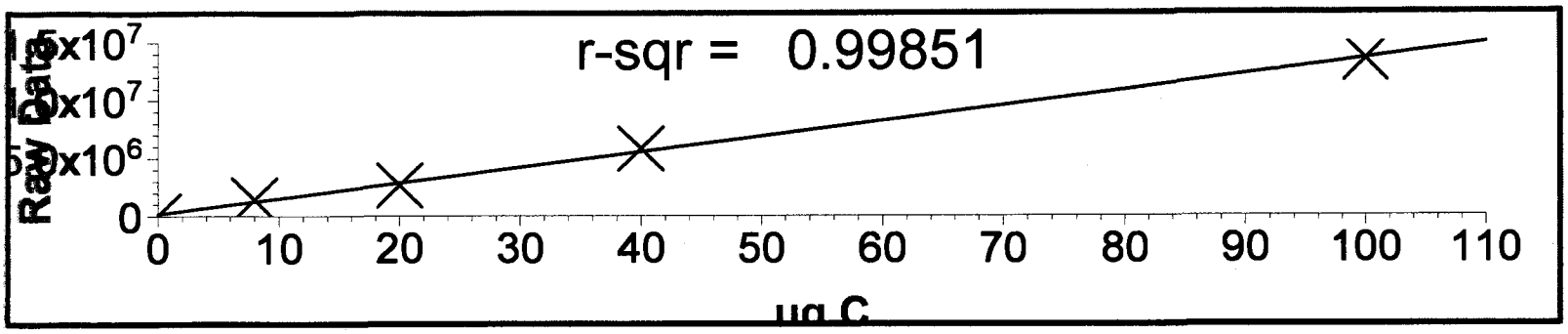
11-13-12 (W)

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

VS18 : 00413


r-sqr = 0.99851
Raw Data
5x10^7
0x10^7
5x10^6
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

VS18:00415

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

VS18 : 00416

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS18

ANALYTICAL
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ANALYST NOTES - GeoTech

ARI Job No: VS18 Client Name: HART CROWSER, INC.

Parameter: #10 SCREEN Client Project: UPPER COLUMBIA

☐ Job OK, no corrective action required

SET UP DATE: 11.14.2012

AIR DRY START: 11.14.2012 / 14:05

#10 SCREEN START: 11.15.2012

Analyst: 11.16.2012 Date Completed: eg

Analytical Resources, Inc.

HOURLY LOG

Client: HART CROWSER INC.

Client Project: UPPER COLUMBIA, 17800-36

ARI Project #: VS18

NAME	DATE	TIME IN	TIME OUT	TOTAL HOURS	NOTES
E. GOBLE	11.14.2012	13:30	14:05	0.58	SETUP / AIRDRY
E.GOBLE	11.15.2012	13:10	13:20	0.16	PREP
E. GOBLE	11.15.2012	13:40	14:15	0.58	#10 SIEVE/DECON
E. GOBLE	11.15.2012	16:15	16:40	0.58	#10 SIEVE/DECON
E.GOBLE	11.16.2012	8:00	8:50	0.83	#10 SIEVE
			TOTAL HOURS	2.75	

Geotech Data Review Checklist
ARI SOP 1150S

ARI JOB No.: VS18	Analyst	Peer	Comment
Preliminary Information:			
Logged Out of Refrigerator Logbook	eg		
Analyst/ Date/ Sample Info	eg	gc	
QC ID Recorded (If Applicable Per Method)			NA
Crossouts/ Corrections/ Deletions	eg	gc	
Samples Returned to login (If Applicable)	eg	gc	11.16.2012 BY eg
Samples:			
QC within Specified Standard Deviation			NA
Data is Consistant Between Parameters			NA
Data Distribution:			
Client Name/ Project/ Project No./ ARI Job	eg	gc	
Sample IDs	eg	gc	
Requested Analysis Results	eg	gc	
Correct samples identified for distribution	eg	gc	
Raw data match distributed data	eg	gc	
Data filename correct	eg	gc	

Table of Contents: ARI Job VS19

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

AV
Signature

November-30-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 3, 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. VS19

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.

for

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

Enclosures

cc: eFile VS19

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: VS19

Sample Custody Record

Samples Shipped to: ARF

2 of 6

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 ~~Upper Columbia~~ LAB NUMBER

PROJECT NAME Upper Columbia

HART CROWSER CONTACT Steve Hughes, Roger McGinnis, Anne Conrad

SAMPLED BY: PRC, NWG, KJH, ASK

REQUESTED ANALYSIS: Metals *, TOC, pH (EPA 9045), Total Solids (SM2540)

OBSERVATIONS/COMMENTS/COMPOSITING INSTRUCTIONS

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	Metals *	TOC	pH (EPA 9045)	Total Solids (SM2540)	NO. OF CONTAINERS
	SAG-3C		11/8/12	1100	SOIL	X	X	X	X	1
	SAG-4C		11/8/12	1013	↓	↓	↓	↓	↓	1
	SAG-5C		11/7/12	1443						1
	SAG-6C		11/7/12	1550						1
	SAG-7C		↓	1604						1
	SAG-7P-1 (0 to 3" depth)			1603						1
	SAG-7P-2 (3 to 6" depth)			1608						1
	SAG-7P-3 (6 to 12" depth)		↓	1613						1
	SAG-7P-4 (12 to 24" depth)		11/9/12	1602						1
	SAG-8C		11/8/12	1554						1
	SAG-9C		11/7/12	1506						1
	SAG-10C		11/4/12	1507		↓	↓	↓	↓	1

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE [signature]	11/12/12	SIGNATURE [signature]	11/12/12
PRINT NAME Phil Cordell	TIME 1200	PRINT NAME Chris Atwell	TIME 1221
COMPANY HC		COMPANY ARI	

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

TOTAL NUMBER OF CONTAINERS 12

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 ______

00003 0157A

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: VS19

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: _____

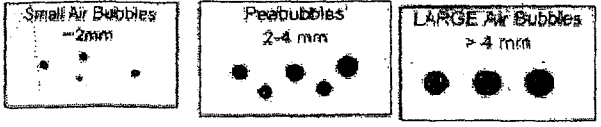
Samples Logged by: JM Date: 11/13/12 Time: 817

*** 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: VS19

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS19
December 3, 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 11/26/12 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: Is in control.

Matrix spike/Sample Duplicate/RPD: The percent recoveries for aluminum, antimony, iron, magnesium, manganese an dpotassium were not within control limits for the matrix spike associated with sample SA9-3C. 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.

Conventional Chemistry Parameters

The samples were analyzed between 11/20/12 and 11/287/12 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.

Matrix spike: Is in control.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VS19
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: Lucinda Curtis *Geotechnical Division Manager* Date: 11/20/12

Reviewed by: Kathleen J Brucker *Lead Technician* Date: 11/21/2012

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VS19
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.	SA9-3C	VS19A	12-22665	Soil	11/08/12 11:00	11/12/12 12:21
2.	SA9-4C	VS19B	12-22666	Soil	11/08/12 10:13	11/12/12 12:21
3.	SA9-5C	VS19C	12-22667	Soil	11/07/12 14:43	11/12/12 12:21
4.	SA9-6C	VS19D	12-22668	Soil	11/07/12 15:50	11/12/12 12:21
5.	SA9-7C	VS19E	12-22669	Soil	11/07/12 16:04	11/12/12 12:21
6.	SA9-7P-1(0 to 3"depth)	VS19F	12-22670	Soil	11/07/12 16:03	11/12/12 12:21
7.	SA9-7P-2(3 to 6"depth)	VS19G	12-22671	Soil	11/07/12 16:08	11/12/12 12:21
8.	SA9-7P-3(6 to 12"depth)	VS19H	12-22672	Soil	11/07/12 16:13	11/12/12 12:21
9.	SA9-7P-4(12 to 24" depth	VS19I	12-22673	Soil	11/09/12 16:02	11/12/12 12:21
10.	SA9-8C	VS19J	12-22674	Soil	11/08/12 15:54	11/12/12 12:21
11.	SA9-9C	VS19K	12-22675	Soil	11/07/12 15:06	11/12/12 12:21
12.	SA9-10C	VS19L	12-22676	Soil	11/09/12 15:07	11/12/12 12:21

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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: VS19

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA9-3C	VS19A	12-22665	
SA9-3CD	VS19ADUP	12-22665	
SA9-3CS	VS19ASPK	12-22665	
SA9-4C	VS19B	12-22666	
PBS	VS19MB1	12-22666	
LCSS	VS19MB1SPK	12-22666	
SA9-5C	VS19C	12-22667	
SA9-6C	VS19D	12-22668	
SA9-7C	VS19E	12-22669	
SA9-7P-1(0 to 3	VS19F	12-22670	
SA9-7P-2(3 to 6	VS19G	12-22671	
SA9-7P-3(6 to 12	VS19H	12-22672	
SA9-7P-4(12 to 24	VS19I	12-22673	
SA9-8C	VS19J	12-22674	
SA9-9C	VS19K	12-22675	
SA9-10C	VS19L	12-22676	

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: 11/30/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA9-3C
SAMPLE

Lab Sample ID: VS19A
LIMS ID: 12-22665
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
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	**29,400**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.083	0.2	**13.7**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**597**	
3050B	11/21/12	200.8	11/23/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.8**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.011	0.09	**4.26**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.5	10	**5,180**	
3050B	11/21/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.18	2	**89**	
3050B	11/21/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.15	0.9	**14.4**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.034	0.5	**38.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**33,700**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.045	0.09	**165**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**15,200**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.095	0.2	**1,260**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.054**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.046	0.5	**37.4**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	41	120	**5,570**	
3050B	11/21/12	200.8	11/23/12	7782-49-2	Selenium	0.094	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0076	0.2	**0.3**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.5	120	**150**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0028	0.2	**0.5**	
3050B	11/21/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.081	0.9	**61.9**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.6	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
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Sample ID: SA9-4C
SAMPLE

Lab Sample ID: VS19B
LIMS ID: 12-22666
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 92.1%

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**	9.1	10	**15,600**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.087	0.2	**17.9**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**120**	
3050B	11/21/12	200.8	11/23/12	**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	**6.5**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.9	10	**10,300**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**19.4**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.2**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**25.8**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**14,200**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**503**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.6	10	**2,850**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**334**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.157**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**20.7**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	45	130	**1,150**	
3050B	11/21/12	200.8	11/23/12	**7782-49-2**	**Selenium**	0.099	0.5	**1.0**	
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.6**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**340**	
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	**18.9**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**490**	

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: SA9-5C
SAMPLE

Lab Sample ID: VS19C
LIMS ID: 12-22667
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 93.4%

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**	9.0	10	**18,400**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.1**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.088	0.2	**28.1**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**445**	
3050B	11/21/12	200.8	11/23/12	**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	**12.8**	
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**	0.039	0.5	**18.1**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**7.8**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.037	0.5	**30.5**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**17,200**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**534**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**3,960**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,730**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.191**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**25.9**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**1,510**	
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	**0.6**	
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	**17.3**	
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

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA9-6C
SAMPLE

Lab Sample ID: VS19D
LIMS ID: 12-22668
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
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	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.9	10	**15,300**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.084	0.2	**14.1**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**368**	
3050B	11/21/12	200.8	11/23/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**13.9**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**11,900**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.037	0.5	**24.9**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.031	0.2	**8.6**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.035	0.5	**28.3**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**19,700**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.23	0.5	**651**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**5,670**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,150**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.184**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.048	0.5	**27.4**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**2,020**	
3050B	11/21/12	200.8	11/23/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.5**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**290**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.016	0.2	**25.3**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.6	20	**550**	

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: SA9-7C
SAMPLE

Lab Sample ID: VS19E
LIMS ID: 12-22669
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
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	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.6	10	**18,200**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.089	0.2	**36.0**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**354**	
3050B	11/21/12	200.8	11/23/12	**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	**13.6**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**4,810**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.039	0.5	**24.2**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.033	0.2	**8.6**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.037	0.5	**30.9**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**22,900**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**539**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**5,400**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.097	0.2	**1,260**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.115**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**25.9**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**1,800**	
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**	0.0082	0.2	**0.4**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**210**	
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**	0.017	0.2	**28.7**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**580**	

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: SA9-7P-1(0 to 3"depth)
SAMPLE

Lab Sample ID: VS19F
LIMS ID: 12-22670
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
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	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.6	10	**20,400**	
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**	0.087	0.2	**14.6**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**251**	
3050B	11/21/12	200.8	11/23/12	**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	**1.1**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**4,140**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**24.7**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**8.7**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**22.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**23,700**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.047	0.1	**37.5**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**5,790**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.097	0.2	**738**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.031**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**30.5**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**1,740**	
3050B	11/21/12	200.8	11/23/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.2**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**240**	
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	**30.0**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.34	4	**154**	

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: SA9-7P-2(3 to 6"depth)
SAMPLE

Lab Sample ID: VS19G
LIMS ID: 12-22671
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-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	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.0	10	**21,000**	
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	**7.3**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**177**	
3050B	11/21/12	200.8	11/23/12	**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	**0.5**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**3,930**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**24.9**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**8.8**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**24.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**25,200**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.048	0.1	**16.5**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**6,020**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**537**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.022**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**30.7**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**1,850**	
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	**0.2**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**270**	
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	**30.5**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.34	4	**103**	

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: SA9-7P-3(6 to 12"depth)
SAMPLE

Lab Sample ID: VS19H
LIMS ID: 12-22672
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 97.9%

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	**20,300**	
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	**8.2**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**167**	
3050B	11/21/12	200.8	11/23/12	**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	**0.8**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.5	10	**3,760**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**28.9**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**9.1**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**25.3**	
3050B'	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**25,500**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.047	0.1	**34.5**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**6,070**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.094	0.2	**431**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.023**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**30.0**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	41	120	**1,870**	
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	**0.3**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.5	120	**270**	
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	**34.7**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.34	4	**111**	

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: SA9-7P-4(12 to 24" depth)
SAMPLE

Lab Sample ID: VS19I
LIMS ID: 12-22673
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Percent Total Solids: 98.6%

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**	8.5	10	**18,700**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.082	0.2	**6.6**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**226**	
3050B	11/21/12	200.8	11/23/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.011	0.09	**0.30**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.5	10	**4,170**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.036	0.5	**29.6**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.030	0.2	**9.5**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.034	0.5	**25.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**26,900**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.044	0.09	**16.0**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**7,980**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.095	0.2	**434**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.014**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.046	0.5	**36.7**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**3,040**	
3050B	11/21/12	200.8	11/23/12	7782-49-2	Selenium	0.093	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0075	0.2	**0.2**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.5	120	**260**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0028	0.2	**0.2**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.016	0.2	**36.3**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.32	4	**80**	

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: SA9-8C**
Page 1 of 1 **SAMPLE**

Lab Sample ID: VS19J
LIMS ID: 12-22674
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 92.8%

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	**21,200**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.7**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.090	0.2	**26.3**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**535**	
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	**16.0**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**13,200**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.039	0.5	**33.5**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.033	0.2	**11.4**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.037	0.5	**38.4**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**28,300**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**691**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**8,250**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,030**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.262**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.051	0.5	**33.5**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**1,860**	
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**	0.0083	0.2	**0.5**	
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**	0.0031	0.2	**0.9**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.018	0.2	**20.9**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.8	20	**850**	

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: SA9-9C
SAMPLE

Lab Sample ID: VS19K
LIMS ID: 12-22675
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
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	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.9	10	**21,000**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.083	0.2	**33.3**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**375**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**9.8**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**3,590**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.036	0.5	**29.7**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.031	0.2	**10.2**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.035	0.5	**33.1**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**28,100**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.23	0.5	**362**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**6,630**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,340**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.068**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.047	0.5	**35.5**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**2,900**	
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	11/26/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.3**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**230**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.016	0.2	**26.1**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.6	20	**430**	

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: SA9-10C
SAMPLE

Lab Sample ID: VS19L
LIMS ID: 12-22676
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
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	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.6	10	**18,700**	
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**	0.089	0.2	**22.0**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**189**	
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	**6.7**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**8,250**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.039	0.5	**25.6**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.033	0.2	**8.1**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.037	0.5	**24.7**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**22,000**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.048	0.1	**260**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**6,040**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.097	0.2	**654**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.094**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**26.9**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	42	120	**1,890**	
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	**310**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.3**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**26.7**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	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
Page 1 of 1

Sample ID: SA9-3C
MATRIX SPIKE

Lab Sample ID: VS19A
LIMS ID: 12-22665
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	29,400	29,300	190	-52.6%	H
Antimony	200.8	0.2 U	0.5	23.8	2.1%	N
Arsenic	200.8	13.7	38.7	23.8	105%	
Barium	6010C	597	800	190	107%	
Beryllium	200.8	0.8	26.0	23.8	106%	
Cadmium	200.8	4.26	28.1	23.8	100%	
Calcium	6010C	5,180	6,110	950	97.9%	H
Chromium	200.8	89	108	23.8	79.8%	
Cobalt	200.8	14.4	36.8	23.8	94.1%	
Copper	200.8	38.0	65.6	23.8	116%	
Iron	6010C	33,700	33,000	190	-368%	H
Lead	200.8	165	194	23.8	122%	H
Magnesium	6010C	15,200	15,800	950	63.2%	H
Manganese	6010C	1,260	1,400	47.5	295%	H
Mercury	7471A	0.054	0.129	0.0715	105%	
Nickel	200.8	37.4	63.7	23.8	111%	
Potassium	6010C	5,570	6,100	950	55.8%	H
Selenium	200.8	0.5 U	75.7	76.0	99.6%	
Silver	200.8	0.3	23.9	23.8	99.2%	
Sodium	6010C	150	1,050	950	94.7%	
Thallium	200.8	0.5	25.3	23.8	104%	
Vanadium	200.8	61.9	89.4	23.8	116%	
Zinc	200.8	280	370	76.0	118%	

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: SA9-3C
DUPLICATE

Lab Sample ID: VS19A
LIMS ID: 12-22665
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	29,400	28,600	2.8%	+/- 20%	
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	13.7	12.6	8.4%	+/- 20%	
Barium	6010C	597	589	1.3%	+/- 20%	
Beryllium	200.8	0.8	0.8	0.0%	+/- 0.2	L
Cadmium	200.8	4.26	3.97	7.0%	+/- 20%	
Calcium	6010C	5,180	5,040	2.7%	+/- 20%	
Chromium	200.8	89	90	1.1%	+/- 20%	
Cobalt	200.8	14.4	13.2	8.7%	+/- 20%	
Copper	200.8	38.0	35.6	6.5%	+/- 20%	
Iron	6010C	33,700	33,100	1.8%	+/- 20%	
Lead	200.8	165	148	10.9%	+/- 20%	
Magnesium	6010C	15,200	14,600	4.0%	+/- 20%	
Manganese	6010C	1,260	1,330	5.4%	+/- 20%	
Mercury	7471A	0.054	0.046	16.0%	+/- 20%	
Nickel	200.8	37.4	34.0	9.5%	+/- 20%	
Potassium	6010C	5,570	4,950	11.8%	+/- 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	150	140	6.9%	+/- 120	L
Thallium	200.8	0.5	0.5	0.0%	+/- 0.2	L
Vanadium	200.8	61.9	59.4	4.1%	+/- 20%	
Zinc	200.8	280	260	7.4%	+/- 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: LAB CONTROL**

Lab Sample ID: VS19LCS
LIMS ID: 12-22666
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-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	204	200	102%	
Antimony	200.8	25.6	25.0	102%	
Arsenic	200.8	27.0	25.0	108%	
Barium	6010C	203	200	102%	
Beryllium	200.8	26.9	25.0	108%	
Cadmium	200.8	26.3	25.0	105%	
Calcium	6010C	982	1000	98.2%	
Chromium	200.8	26.9	25.0	108%	
Cobalt	200.8	26.1	25.0	104%	
Copper	200.8	28.6	25.0	114%	
Iron	6010C	208	200	104%	
Lead	200.8	27.8	25.0	111%	
Magnesium	6010C	1030	1000	103%	
Manganese	6010C	50.0	50.0	100%	
Mercury	7471A	0.155	0.143	108%	
Nickel	200.8	28.3	25.0	113%	
Potassium	6010C	980	1000	98.0%	
Selenium	200.8	87.0	80.0	109%	
Silver	200.8	27.4	25.0	110%	
Sodium	6010C	970	1000	97.0%	
Thallium	200.8	27.5	25.0	110%	
Vanadium	200.8	26.8	25.0	107%	
Zinc	200.8	91	80	114%	

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: VS19MB
LIMS ID: 12-22666
Matrix: Soil
Data Release Authorized:
Reported: 11/29/12

QC Report No: VS19-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	11/23/12	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	U
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	11/23/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	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

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

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**
Beryllium	BE	PMS	MS112311	50.0	50.50	**101.0**	50.0	49.71	**99.4**	50.36	**100.7**	52.95	**105.9**	52.03	**104.1**	52.03	**104.1**
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**

VS19 : 09032

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: VS19

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		
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		
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
Beryllium	BE	PMS	MS112311	50.0	51.98	104.0	53.66	107.3	53.46	106.9	53.26	106.5	55.14	110.3		
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		
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		
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		
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		
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		
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	4.40	110.0	4.43	110.8	4.44	111.0	4.41	110.3
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		
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		
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		
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		
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		

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

UNITS: ug/L

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**	2026.84	**101.3**	2034.41	**101.7**				
Antimony	SB	PMS	MS112311	50.0												
Arsenic	AS	PMS	MS112311	50.0												
Barium	BA	ICP	IP112371	1000.0	996.57	**99.7**	997.32	**99.7**	1010.84	**101.1**	1000.14	**100.0**				
Beryllium	BE	PMS	MS112311	50.0												
Cadmium	CD	PMS	MS112311	50.0												
Calcium	CA	ICP	IP112371	2000.0	2053.45	**102.7**	2074.98	**103.7**	2071.01	**103.6**	2081.68	**104.1**				
Chromium	CR	PMS	MS112311	50.0												
Cobalt	CO	PMS	MS112311	50.0												
Copper	CU	PMS	MS112311	50.0												
Iron	FE	ICP	IP112371	2000.0	2088.23	**104.4**	2113.53	**105.7**	2115.27	**105.8**	2124.11	**106.2**				
Lead	PB	PMS	MS112311	50.0												
Magnesium	MG	ICP	IP112371	2000.0	2028.90	**101.4**	2035.99	**101.8**	2024.58	**101.2**	2046.79	**102.3**				
Manganese	MN	ICP	IP112371	1000.0	1017.86	**101.8**	1018.47	**101.8**	1025.05	**102.5**	1018.89	**101.9**				
Mercury	HG	CVA	HG112301	4.0												
Nickel	NI	PMS	MS112311	50.0												
Potassium	K	ICP	IP112371	20000.0	20073.17	**100.4**	20025.69	**100.1**	20159.59	**100.8**	19939.14	**99.7**				
Selenium	SE	PMS	MS112311	50.0												
Sodium	NA	ICP	IP112371	50000.0	52489.70	**105.0**	52021.06	**104.0**	52476.99	**105.0**	51737.25	**103.5**				
Thallium	TL	PMS	MS112311	50.0												
Vanadium	V	PMS	MS112311	50.0												
Zinc	ZN	PMS	MS112311	50.0												

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: VS19

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
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**
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**
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**
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**
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**

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: VS19

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Beryllium	BE	PMS	MS112611	50.0	52.86	**105.7**										
Chromium	CR	PMS	MS112611	50.0	49.84	**99.7**										
Cobalt	CO	PMS	MS112611	50.0	48.25	**96.5**										
Lead	PB	PMS	MS112611	50.0	51.20	**102.4**										
Selenium	SE	PMS	MS112611	50.0	53.40	**106.8**										
Silver	AG	PMS	MS112611	50.0	55.91	**111.8**										
Vanadium	V	PMS	MS112611	50.0	49.15	**98.3**										
Zinc	ZN	PMS	MS112611	50.0	51.13	**102.3**										

VS19 : 9065

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: VS19

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**		
Beryllium	BE	PMS	MS112311	0.2	0.21	**105.0**										
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**										
Beryllium	BE	PMS	MS112611	0.2	0.21	**105.0**										
Chromium	CR	PMS	MS112611	0.5	0.58	**116.0**										
Cobalt	CO	PMS	MS112611	0.2	0.20	**100.0**										
Lead	PB	PMS	MS112611	0.1	0.11	**110.0**										
Selenium	SE	PMS	MS112611	0.5	0.52	**104.0**										
Silver	AG	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**										

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: VS19

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
Beryllium	BE	PMS	MS112311	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	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: VS19

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		
Arsenic	AS	PMS	MS112311	10.0	0.2	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
Beryllium	BE	PMS	MS112311	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Cadmium	CD	PMS	MS112311	5.0	0.1	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		
Cobalt	CO	PMS	MS112311	50.0	0.2	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		
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		
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		
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		
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		
Vanadium	V	PMS	MS112311	50.0	0.2	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		

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS19

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	50.0	U	50.0	U						
Antimony	SB	PMS	MS112311	60.0	0.2												
Arsenic	AS	PMS	MS112311	10.0	0.2												
Barium	BA	ICP	IP112371	200.0	3.0	3.0	U	3.0	U	3.0	U						
Beryllium	BE	PMS	MS112311	5.0	0.2												
Cadmium	CD	PMS	MS112311	5.0	0.1												
Calcium	CA	ICP	IP112371	5000.0	50.0	50.0	U	50.0	U	50.0	U						
Chromium	CR	PMS	MS112311	10.0	0.5												
Cobalt	CO	PMS	MS112311	50.0	0.2												
Copper	CU	PMS	MS112311	25.0	0.5												
Iron	FE	ICP	IP112371	100.0	50.0	50.0	U	50.0	U	50.0	U						
Lead	PB	PMS	MS112311	3.0	0.1												
Magnesium	MG	ICP	IP112371	5000.0	50.0	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						
Mercury	HG	CVA	HG112301	0.2	0.1												
Nickel	NI	PMS	MS112311	40.0	0.5												
Potassium	K	ICP	IP112371	5000.0	500.0	500.0	U	500.0	U	500.0	U						
Selenium	SE	PMS	MS112311	5.0	0.5												
Sodium	NA	ICP	IP112371	5000.0	500.0	500.0	U	500.0	U	500.0	U						
Thallium	TL	PMS	MS112311	10.0	0.2												
Vanadium	V	PMS	MS112311	50.0	0.2												
Zinc	ZN	PMS	MS112311	20.0	4.0												

VS19 0005

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS19

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
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
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
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
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
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

VS19-0051

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Beryllium	BE	PMS	MS112611	5.0	0.2	0.2	U										
Chromium	CR	PMS	MS112611	10.0	0.5	0.5	U										
Cobalt	CO	PMS	MS112611	50.0	0.2	0.2	U										
Lead	PB	PMS	MS112611	3.0	0.1	0.1	U										
Selenium	SE	PMS	MS112611	5.0	0.5	0.5	U										
Silver	AG	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										

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP112371

SDG: VS19

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**

VS19-SDG

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP112371

SDG: VS19

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**	199262.1	199237.2	**99.6**			
Antimony		1000	7.1	1018.1	**101.8**	5.7	1005.6	**100.6**			
Arsenic		1000	16.0	1038.0	**103.8**	14.7	1024.9	**102.5**			
Barium		1000	-3.9	975.1	**97.5**	-5.0	999.9	**100.0**			
Beryllium		1000	0.1	967.9	**96.8**	0.1	996.3	**99.6**			
Boron			-2.7	-2.5		-3.5	-3.1				
Cadmium		1000	-0.3	1036.6	**103.7**	-0.2	1027.3	**102.7**			
Calcium	100000	100000	100109.7	98290.4	**98.3**	100080.7	100866.3	**100.9**			
Chromium		1000	-0.2	992.2	**99.2**	1.1	1017.7	**101.8**			
Cobalt		1000	-0.5	978.5	**97.9**	-0.4	969.3	**96.9**			
Copper		1000	-0.3	1054.9	**105.5**	-0.4	1050.5	**105.1**			
Iron	200000	200000	198869.4	194665.6	**97.3**	199632.7	200362.5	**100.2**			
Lead		1000	-0.3	1008.8	**100.9**	0.2	997.9	**99.8**			
Magnesium	100000	100000	103808.0	97435.3	**97.4**	103345.5	100048.2	**100.0**			
Manganese		1000	0.9	946.1	**94.6**	1.1	973.4	**97.3**			
Molybdenum			1.3	1.7		1.7	1.6				
Nickel		1000	0.7	951.4	**95.1**	0.3	974.9	**97.5**			
Potassium			9.4	-18.2		-9.3	-34.0				
Selenium		1000	8.1	1027.4	**102.7**	7.8	1014.0	**101.4**			
Silicon			-3.3	-4.8		-5.5	-2.0				
Silver		1000	-1.2	1044.9	**104.5**	-1.2	1039.7	**104.0**			
Sodium			16.1	27.5		16.0	30.4				
Strontium			4.1	3.9		4.0	4.0				
Thallium		1000	-0.6	945.3	**94.5**	0.6	935.2	**93.5**			
Tin			-5.1	-6.5		-5.4	-5.5				
Titanium			2.4	2.6		2.7	2.3				
Vanadium		1000	4.5	1006.1	**100.6**	4.6	997.7	**99.8**			
Zinc		1000	3.3	954.4	**95.4**	2.5	977.8	**97.8**			

IP112371 VS19

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

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.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS112611

SDG: VS19

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**						

VS19 : 59615

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS19

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA9-3CA	VS19APOST	MS112311	471.38	B	1000.00	U	500	Soil	**94.3**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VS19

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA9-3CL	VS19A-L	Soil	IP112371	123767.73		131916.00		6.6	
Barium	SA9-3CL	VS19A-L	Soil	IP112371	2513.56		2754.50		9.6	
Calcium	SA9-3CL	VS19A-L	Soil	IP112371	21808.98		23571.90	B	8.1	
Iron	SA9-3CL	VS19A-L	Soil	IP112371	141817.40		154658.85		9.1	
Magnesium	SA9-3CL	VS19A-L	Soil	IP112371	63933.55		68949.95		7.8	
Manganese	SA9-3CL	VS19A-L	Soil	IP112371	5324.12		5782.00		8.6	
Potassium	SA9-3CL	VS19A-L	Soil	IP112371	23440.23		25076.25		7.0	
Sodium	SA9-3CL	VS19A-L	Soil	IP112371	623.07	B	2500.00	U	100.0	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS19

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA9-3CL	VS19A-L	Soil	MS112311	0.08	U	0.10	B		
Arsenic	SA9-3CL	VS19A-L	Soil	MS112311	14.48		14.55	B	0.5	
Beryllium	SA9-3CL	VS19A-L	Soil	MS112311	0.89	B	0.95	B	6.7	
Cadmium	SA9-3CL	VS19A-L	Soil	MS112311	4.49	B	4.85	B	8.0	
Copper	SA9-3CL	VS19A-L	Soil	MS112311	40.01		42.30	B	5.7	
Lead	SA9-3CL	VS19A-L	Soil	MS112311	173.54		173.60		0.0	
Nickel	SA9-3CL	VS19A-L	Soil	MS112311	39.40	B	39.60	B	0.5	
Selenium	SA9-3CL	VS19A-L	Soil	MS112311	-0.23	U	-0.30	B		
Thallium	SA9-3CL	VS19A-L	Soil	MS112311	0.56	B	0.60	B	7.1	
Chromium	SA9-3CL	VS19A-L	Soil	MS112611	18.77		20.85	B	11.1	
Cobalt	SA9-3CL	VS19A-L	Soil	MS112611	3.03	B	3.30	B	8.9	
Silver	SA9-3CL	VS19A-L	Soil	MS112611	0.27	B	0.25	B	7.4	
Vanadium	SA9-3CL	VS19A-L	Soil	MS112611	13.04	B	14.10	B	8.1	
Zinc	SA9-3CL	VS19A-L	Soil	MS112611	58.58		62.85	B	7.3	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19 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: VS19

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

VS19-0951

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VS19

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

VS19-9952

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA9-3C	VS19A	0.722	0.0	50.0
SA9-3CD	VS19ADUP	0.725	0.0	50.0
SA9-3CS	VS19ASPK	0.721	0.0	50.0
SA9-4C	VS19B	0.744	0.0	50.0
SA9-5C	VS19C	0.715	0.0	50.0
SA9-6C	VS19D	0.735	0.0	50.0
SA9-7C	VS19E	0.739	0.0	50.0
SA9-7P-1(0 to 3	VS19F	0.702	0.0	50.0
SA9-7P-2(3 to 6	VS19G	0.749	0.0	50.0
SA9-7P-3(6 to 12	VS19H	0.743	0.0	50.0
SA9-7P-4(12 to 24	VS19I	0.703	0.0	50.0
SA9-8C	VS19J	0.719	0.0	50.0
SA9-9C	VS19K	0.718	0.0	50.0
SA9-10C	VS19L	0.732	0.0	50.0
PBS	VS19MB1	0.700	0.0	50.0
LCSW	VS19MB1SPK	0.700	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA9-3C	VS19A	1.085	0.0	50.0
SA9-3CD	VS19ADUP	1.084	0.0	50.0
SA9-3CS	VS19ASPK	1.085	0.0	50.0
SA9-4C	VS19B	1.054	0.0	50.0
SA9-5C	VS19C	1.057	0.0	50.0
SA9-6C	VS19D	1.056	0.0	50.0
SA9-7C	VS19E	1.081	0.0	50.0
SA9-7P-1(0 to 3	VS19F	1.057	0.0	50.0
SA9-7P-2(3 to 6	VS19G	1.005	0.0	50.0
SA9-7P-3(6 to 12	VS19H	1.083	0.0	50.0
SA9-7P-4(12 to 24	VS19I	1.063	0.0	50.0
SA9-8C	VS19J	1.059	0.0	50.0
SA9-9C	VS19K	1.022	0.0	50.0
SA9-10C	VS19L	1.078	0.0	50.0
PBS	VS19MB1	1.000	0.0	50.0
LCSS	VS19MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS19

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA9-3C	VS19A	1.086	0.0	50.0
SA9-3CD	VS19ADUP	1.087	0.0	50.0
SA9-3CS	VS19ASPK	1.084	0.0	50.0
SA9-4C	VS19B	1.084	0.0	50.0
SA9-5C	VS19C	1.055	0.0	50.0
SA9-6C	VS19D	1.089	0.0	50.0
SA9-7C	VS19E	1.015	0.0	50.0
SA9-7P-1(0 to 3	VS19F	1.027	0.0	50.0
SA9-7P-2(3 to 6	VS19G	1.009	0.0	50.0
SA9-7P-3(6 to 12	VS19H	1.013	0.0	50.0
SA9-7P-4(12 to 24	VS19I	1.082	0.0	50.0
SA9-8C	VS19J	1.041	0.0	50.0
SA9-9C	VS19K	1.073	0.0	50.0
SA9-10C	VS19L	1.017	0.0	50.0
PBS	VS19MB1	1.000	0.0	50.0
LCSS	VS19MB1SPK	1.000	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: VS19 | 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

VS19 0055

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS19 | 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											
PBS	VS19MB1	2.00	13071			X			X		X					X		X	X	X		X											
SA9-4C	VS19B	5.00	13113			X			X		X					X		X	X	X		X											
SA9-5C	VS19C	5.00	13153			X			X		X					X		X	X	X		X											
SA9-6C	VS19D	5.00	13193			X			X		X					X		X	X	X		X											
SA9-3CL	VS19A-L	25.00	13233			X			X		X					X		X	X	X		X											
SA9-3C	VS19A	5.00	13273			X			X		X					X		X	X	X		X											
SA9-3CD	VS19ADUP	5.00	13313			X			X		X					X		X	X	X		X											
SA9-3CS	VS19ASPK	5.00	13353			X			X		X					X		X	X	X		X											
ZZZZZZ	ZZZZZZ	5.00	13393																														
LCSS	VS19MB1SPK	2.00	13433			X			X		X					X		X	X	X		X											
CCV	CCV7	1.00	13474			X			X		X					X		X	X	X		X											

FORM XIV

VS19 00057

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS19 | 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											
SA9-7C	VS19E	5.00	14012			X			X		X					X		X	X	X		X											
SA9-7P-1(0 to 3	VS19F	5.00	14053			X			X		X					X		X	X	X		X											
SA9-7P-2(3 to 6	VS19G	5.00	14093																														
SA9-7P-3(6 to 12	VS19H	5.00	14133																														
SA9-7P-4(12 to 24	VS19I	5.00	14173			X			X		X					X		X	X	X		X											
SA9-8C	VS19J	5.00	14213			X			X		X					X		X	X	X		X											
SA9-9C	VS19K	5.00	14253			X			X		X					X		X	X	X		X											
SA9-10C	VS19L	5.00	14293			X			X		X					X		X	X	X		X											
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											
ZZZZZZ	VS20MB1	2.00	15030																														
ZZZZZZ	VS20B	5.00	15071																														
ZZZZZZ	VS20C	5.00	15112																														
ZZZZZZ	VS20D	5.00	15152																														
ZZZZZZ	VS20A-L	25.00	15192																														
ZZZZZZ	VS20A	5.00	15232																														
ZZZZZZ	VS20ADUP	5.00	15272																														
ZZZZZZ	VS20ASPK	5.00	15312																														
ZZZZZZ	ZZZZZZ	5.00	15352																														
ZZZZZZ	VS20MB1SPK	2.00	15393																														
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											
ZZZZZZ	VS20E	5.00	15520																														
ZZZZZZ	VS20F	5.00	15560																														
ZZZZZZ	VS20G	5.00	16001																														
ZZZZZZ	VS20H	5.00	16041																														
ZZZZZZ	VS20I	5.00	16081																														
ZZZZZZ	VS20J	5.00	16121																														

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: VS19 | 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	VS20K	5.00	16161																														
ZZZZZZ	VS20L	5.00	16201																														
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											
SA9-7P-2(3 to 6	VS19G	5.00	17014			X			X		X					X		X	X	X		X											
SA9-7P-3(6 to 12	VS19H	5.00	17054			X			X		X					X		X	X	X		X											
CCV	CCV14	1.00	17094			X			X		X					X		X	X	X		X											
CCB	CCB13	1.00	17135			X			X		X					X		X	X	X		X											
CRI	CRIF3	1.00	17181			X			X		X					X		X	X	X		X											
ICSA	ICSAF3	1.00	17222			X			X		X					X		X	X	X		X											
ICSAB	ICSABF3	1.00	17262			X			X		X					X		X	X	X		X											
CCV	CCV15	1.00	17303			X			X		X					X		X	X	X		X											
CCB	CCB14	1.00	17343			X			X		X					X		X	X	X		X											

VS19 : 9555

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS19 | 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	X
S1	S1	1.00	12190				X			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	X
S3	S3	1.00	12280				X			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	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	X
ICB	ICB	1.00	13000				X			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	X
CCB	CCB1	1.00	13100				X			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	X
ICSA	ICSAI	1.00	13190				X			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	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	X
CCB	CCB2	1.00	14080				X			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	X
CCB	CCB3	1.00	15020				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR64MB2	1.00	15070																														
ZZZZZZ	VR64MB2SPK	1.00	15120																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS19 | 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	X
CCB	CCB4	1.00	15570				X			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	X
CCB	CCB5	1.00	16570				X			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	X
CCB	CCB6	1.00	17500				X			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	X

FORM XIV

VS19 9955

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS19 | 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	X
CCB	CCB7	1.00	18070				X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VS19MB1	20.00	18120				X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VS19MB1SPK	20.00	18160				X			X		X	X	X	X								X	X	X	X				X		X	X
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																														
SA9-4C	VS19B	20.00	18410				X			X		X	X	X	X								X		X	X				X		X	
SA9-5C	VS19C	20.00	18460				X			X		X	X	X	X								X		X	X				X		X	
SA9-6C	VS19D	20.00	18500				X			X		X	X	X	X								X		X	X				X		X	
CCV	MCCV8	1.00	18540				X			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	X
SA9-3CL	VS19A-L	100.00	19060				X			X		X			X								X	X	X	X				X			
SA9-3C	VS19A	20.00	19100				X			X		X			X								X	X	X	X				X			
SA9-3CD	VS19ADUP	20.00	19140				X			X		X			X								X	X	X	X				X			
SA9-3CS	VS19ASPK	20.00	19180				X			X		X			X								X	X	X	X				X			
SA9-3CA	VS19APOST	20.00	19220																						X								
SA9-7C	VS19E	20.00	19260				X			X		X	X	X	X								X		X	X				X		X	
SA9-7P-1(0 to 3	VS19F	20.00	19300				X			X		X	X	X	X								X	X	X	X				X		X	X
SA9-7P-2(3 to 6	VS19G	20.00	19340				X			X		X	X	X	X								X	X	X	X				X		X	X
SA9-7P-3(6 to 12	VS19H	20.00	19400				X			X		X	X	X	X								X	X	X	X				X		X	X
SA9-7P-4(12 to 24	VS19I	20.00	19440				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV9	1.00	19480				X			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	X
ZZZZZZ	VS20MB1	20.00	19590																														
ZZZZZZ	VS20MB1SPK	20.00	20030																														
SA9-8C	VS19J	20.00	20070				X					X	X	X	X								X		X					X		X	
SA9-9C	VS19K	20.00	20110				X					X	X	X	X								X		X					X		X	
SA9-10C	VS19L	20.00	20150				X					X	X	X	X								X	X	X					X		X	
ZZZZZZ	VS20B	20.00	20200																														
ZZZZZZ	VS20C	20.00	20240																														
ZZZZZZ	VS20D	20.00	20280																														
ZZZZZZ	VS20E	20.00	20330																														

VS19-0002

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS19 | 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	VS20F	20.00	20370																														
CCV	MCCV10	1.00	20410				X			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	X

VS19 00053

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: NEXION 300D MS START DATE: 11/26/2012

SDG: VS19 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
S1	S1	1.00	10070		X					X			X	X										X		X						X	X
S2	S2	1.00	10110		X					X			X	X										X		X						X	X
S3	S3	1.00	10150		X					X			X	X										X		X						X	X
S4	S4	1.00	10200		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
ICB	ICB	1.00	10500		X					X			X	X										X		X						X	X
CCV	MCCV1	1.00	10540		X					X			X	X										X		X						X	X
CCB	CCB1	1.00	11010		X					X			X	X										X		X						X	X
CRI	MCRI	1.00	11050		X					X			X	X										X		X						X	X
ICSA	ICSAI	1.00	11090		X					X			X	X										X		X						X	X
ICSAB	ICSABI	1.00	11160		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
CCB	CCB2	1.00	12040		X					X			X	X										X		X						X	X
PBS	VS19MB1	20.00	12110		X																												
LCSS	VS19MB1SPK	20.00	12150		X																												
ZZZZZZ	VS18J	20.00	12190																														
ZZZZZZ	VS18K	20.00	12230																														
ZZZZZZ	VS18L	20.00	12280																														
SA9-4C	VS19B	100.00	12320																					X									X
SA9-4C	VS19B	20.00	12360		X																												
SA9-5C	VS19C	100.00	12400																					X									X
SA9-5C	VS19C	20.00	12450		X																												
SA9-6C	VS19D	20.00	12490		X																												
CCV	MCCV3	1.00	12530		X					X			X	X										X		X						X	X
CCB	CCB3	1.00	13000		X					X			X	X										X		X						X	X
SA9-3CL	VS19A-L	100.00	13080		X																												

FORM XIV

VS19:00054

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS19 | 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
SA9-3C	VS19A	20.00	13120		X																			X								X	
SA9-3CD	VS19ADUP	20.00	13160		X																												
SA9-3CS	VS19ASPK	20.00	13200		X																												
SA9-6C	VS19D	100.00	13240																					X									X
SA9-7C	VS19E	100.00	13280																					X									X
SA9-7P-1(0 to 3	VS19F	20.00	13340		X																												
SA9-7P-2(3 to 6	VS19G	20.00	13380		X																												
SA9-7P-3(6 to 12	VS19H	20.00	13420		X																												
SA9-7P-4(12 to 24	VS19I	20.00	13460		X																												
CCV	MCCV4	1.00	13500		X					X			X	X										X		X					X	X
CCB	CCB4	1.00	13570		X					X			X	X										X		X					X	X
SA9-3CL	VS19A-L	500.00	14020										X	X																	X	X
SA9-3C	VS19A	100.00	14060										X	X																	X	X
SA9-3CD	VS19ADUP	100.00	14100										X	X																	X	X
SA9-3CS	VS19ASPK	100.00	14140										X	X																	X	X
SA9-8C	VS19J	100.00	14180																					X									X
SA9-10C	VS19L	100.00	14220																														X
SA9-7C	VS19E	20.00	14260		X																												
SA9-9C	VS19K	20.00	14310		X					X																X							
SA9-8C	VS19J	20.00	14360		X					X																X							
SA9-10C	VS19L	20.00	14400		X					X																X							
CCV	MCCV5	1.00	14440		X					X			X	X										X		X					X	X
CCB	CCB5	1.00	14510		X					X			X	X										X		X					X	X
ZZZZZZ	VS20MB1	20.00	15160																														
ZZZZZZ	VS20MB1SPK	20.00	15200																														
SA9-9C	VS19K	100.00	15240																					X									X
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
CCB	CCB6	1.00	16050		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: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS19 | 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

VS19-0055

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS19 | 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

VS19 0057

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS19 | 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																														
PBW	VS19MB1	1.00	14103														X																
LCSW	VS19MB1SPK	1.00	14120														X																
SA9-3C	VS19A	1.00	14134														X																
CCV	ACCV9	1.00	14152														X																
CCB	CCB9	1.00	14170														X																
SA9-3CD	VS19ADUP	1.00	14184														X																
SA9-3CS	VS19ASPK	1.00	14202														X																
SA9-4C	VS19B	1.00	14215														X																
SA9-5C	VS19C	1.00	14233														X																
SA9-6C	VS19D	1.00	14251														X																
SA9-7C	VS19E	1.00	14265														X																
SA9-7P-1(0 to 3	VS19F	1.00	14282														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: VS19 | 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
SA9-7P-2(3 to 6	VS19G	1.00	14300														X																
SA9-7P-3(6 to 12	VS19H	1.00	14313														X																
SA9-7P-4(12 to 24	VS19I	1.00	14331														X																
CCV	ACCV10	1.00	14345														X																
CCB	CCB10	1.00	14363														X																
SA9-8C	VS19J	1.00	14381														X																
SA9-9C	VS19K	1.00	14395														X																
SA9-10C	VS19L	1.00	14412														X																
CCV	ACCV11	1.00	14430														X																
CCB	CCB11	1.00	14444														X																

VS19 00006

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VS19

SAMPLE RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: DMF
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA9-3C
ARI ID: 12-22665 VS19A

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	97.40
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.192	4.78

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-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: SA9-4C
ARI ID: 12-22666 VS19B

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	93.00
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	3.32

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MB
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA9-5C
ARI ID: 12-22667 VS19C

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.10
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	93.80
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	5.34

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-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: SA9-6C
ARI ID: 12-22668 VS19D

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.44
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	95.60
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	8.40

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MC
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA9-7C
ARI ID: 12-22669 VS19E

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.78
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	96.40
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	2.79

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-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: SA9-7P-1(0 to 3"depth)
ARI ID: 12-22670 VS19F

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.03
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.70
Total Organic Carbon	11/28/12 112812#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
VS19-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: SA9-7P-2(3 to 6"depth)
ARI ID: 12-22671 VS19G

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.10
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	98.10
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	0.717

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-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: SA9-7P-3(6 to 12"depth)
ARI ID: 12-22672 VS19H

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	98.20
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	0.717

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MB
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA9-7P-4(12 to 24" depth)
ARI ID: 12-22673 VS19I

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	98.80
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	0.585

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-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: SA9-8C
ARI ID: 12-22674 VS19J

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.97
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	93.70
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.196	12.4

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MB
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA9-9C
ARI ID: 12-22675 VS19K

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.60
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.40
Total Organic Carbon	11/28/12 112812#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
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: YR
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA9-10C
ARI ID: 12-22676 VS19L

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.03
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	95.90
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	9.18

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

METHOD BLANK RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: JMB
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
Total Organic Carbon	11/28/12	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MW
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	11/28/12	Percent	0.092	0.100	92.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS
VS19-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%

REPLICATE RESULTS-CONVENTIONALS
VS19-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: JB
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: VS19A Client ID: SA9-3C					
pH	11/21/12	std units	5.96	5.98	0.02
Total Solids	11/20/12	Percent	97.40	97.50 97.60	0.1%
Total Organic Carbon	11/28/12	Percent	4.78	5.41 5.00	6.3%

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

MS/MSD RESULTS-CONVENTIONALS
VS19-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

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VS19A Client ID: SA9-3C						
Total Organic Carbon	11/28/12	Percent	4.78	15.7	9.64	113.3%

Total Solids

ARI Job ID: VS19

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
VS19	A	SA9-3C	1.095	10.601	10.321	97.05
VS19	B	SA9-3C	1.092	10.078	9.371	92.13
VS19	C	SA9-3C	1.097	10.252	9.648	93.40
VS19	D	SA9-3C	1.092	10.181	9.698	94.69
VS19	E	SA9-3C	1.082	10.584	10.189	95.84
VS19	F	SA9-3C	1.079	10.423	10.186	97.46
VS19	G	SA9-3C	1.107	10.651	10.446	97.85
VS19	H	SA9-3C	1.073	10.339	10.144	97.90
VS19	I	SA9-3C	1.126	10.886	10.748	98.59
VS19	J	SA9-3C	1.101	10.827	10.124	92.77
VS19	K	SA9-3C	1.093	10.598	10.323	97.11
VS19	L	SA9-3C	1.151	10.342	9.945	95.68

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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]
VS19 A	1.095	10.601	10.321	—	√
" B	1.092	10.078	9.571	—	√
" C	1.097	10.252	9.648	—	√
" D	1.092	10.181	9.698	—	√
" E	1.082	10.584	10.189	—	√
" F	1.079	10.423	10.186	—	√
" G	1.107	10.651	10.446	—	√
" H	1.073	10.339	10.144	—	√
" I	1.126	10.886	10.748	—	√
" J	1.101	10.827	10.124	—	√
" K	~~1.086~~ 1.093 *	10.598	10.323	—	√
" L	1.151	10.342	9.945	—	√

NB 11-23-12

* 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: VS19

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 VS19 ASPK, MBISPK

	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	

NB 11-21-12*
NB 11-21-12*

	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.

VS19:00092

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: NB Date: 11-21-12 Time: 1158

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
VS19 A	1	—	1.085	50.0	1.086	50.0	
" ADUP	1	—	1.084		1.087		
" ASPK	1	—	1.085		1.084		
" B	1	—	1.054		1.084		
" C	1	—	1.057		1.055		
" D	1	—	1.056		1.089		
" E	1	—	1.081		1.015		
" F	1	—	1.057		1.027		
" G	1	—	1.005		1.009		
" H	1	—	1.083		1.013		
" I	1	—	1.063		1.082		
" J	1	—	1.059		1.041		
" K	1	—	1.022		1.073		
" L	1	—	1.078		1.017		
" MBI	—	—	—		—		
" MBISPK	—	—	—	50.0	—	50.0	

NB 11-21-12

Chemical/Reagent ID:
NB11-21-12
HNO_3: ~~MP4~~ MP2392 I7833 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

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: 1205258

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS19
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 : 0 ppb Sb

ASPK: 0.574 ppb Sb %R = 2.3

post-spike ok

Samples Affected:

Corrective Action Taken:

End

11/27/12

Analyst Initials: MJT **Supervisor:**

Date: 11.26.12 **Date:**

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VS19

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11 - ~~23~~ 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			
		MB1SPK		✓	
		MB1SPD		✓	
		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		✓ ↓	↓
		MB1SPK		2 ✓	
		CCV4			
		CCB4			
		VS18 E	SWC	5	
		F		↓	
		G		↓	
		H		↓	

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 (0.00130 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			

VS19:00101

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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: 6 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		ICSA			
		ICSAB			
		CCV15			
		CCB14			
		Rinse / DI			
		BA 11/26/12			

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 MJ 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 JS

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

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

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
Sample ID: STD4

Autosampler Location: 4
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
Sample ID: STD5

Autosampler Location: 5
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

==========

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	Std.Dev.	Sample Conc.	Sample Units	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: ICB

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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	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%

Conc.

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.	Units	Std.Dev.	Sample Conc.	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Conc.	Calib. Units	Std.Dev.	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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
All	218.0 kPa	0.75 L/min

Mean Data: VT01 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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%
Sb 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Std.Dev.	Sample Conc.	Sample Units	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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
All	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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

Del

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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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.	Units	Std.Dev.	Sample Conc.	Units	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	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%

Cont.

Sequence No.: 53
Sample ID: CV
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
A11	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	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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 11/26/12
Analyst: BA
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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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.	Units	Std.Dev.	Sample Conc.	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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	Conc.	Calib. Units	Std.Dev.	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.	Conc.	Sample Units	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
All	219.0 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	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	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%

Conf.

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	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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	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%

Cont.

Sequence No.: 80
Sample ID: CV 10
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
A11	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	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	Calib. Conc.	Calib. Units	Std.Dev.	Sample 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	Calib. Conc.	Units	Std.Dev.	Sample Conc.	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
All	218.0 kPa	0.75 L/min

Mean Data: VS20 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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
A11	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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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	Std.Dev.	Sample Conc.	Sample Units	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
Sample ID: VS20 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 364
Date Collected: 11/23/2012 3:39:30 PM
Data Type: Original

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.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample 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 11
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	Std.Dev.	Sample Conc.	Sample Units	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.	Units	Std.Dev.	Sample Conc.	Units	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.	Units	Std.Dev.	Sample Conc.	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
Sample ID: VS20 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 367
Date Collected: 11/23/2012 4:00:10 PM
Data Type: Original

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.	Units	Std.Dev.	Sample Conc.	Units	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.	Units	Std.Dev.	Sample Conc.	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
All	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%