

40-8905

Rio Algom Mining LLC

October 24, 2012

Certified Mail (7010 1870 0000 3702 9757)

Mr. Jerry Schoeppner
Groundwater Quality Section
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

Re: **Erratum For:**
Discharge Permit – 71 (DP-71)
Report for 3rd Quarter 2012
Original Report Dated October 10, 2012

Dear Mr. Schoeppner,

The purpose of this letter is to provide a corrected copy or erratum of the 3rd Quarter 2012, DP-71 report, dated October 10, 2012. The report summarizes activities and groundwater monitoring for Rio Algom Mining LLC (RAML), Section 4 lined evaporation ponds located at the Ambrosia Lake mill facility

The ACZ Laboratory report in Exhibit 4 of the October 10, 2012 report only contained 10 of the 11 pages that should have been in the report. Since the Excel summary data was not affected by this erratum, a new CD was not included with this report.

If you have any questions regarding this erratum or report, please call or email me at chuck.wentz@bhpbilliton.com.

Sincerely,



Chuck Wentz
Environmental Department Supervisor
Radiation Safety Officer

Attachments: As stated

cc: NRC (Mr. Tom McLaughlin)
NRC (document control)
D. Murray

FSME 20

RIO ALGOM MINING LLC – AMBROSIA LAKE FACILITY

DP – 71 3rd QUARTER REPORT 2012

This report presents the activities and results of the monitoring and sampling requirements associated with DP-71 for the 3rd quarter of 2012. DP-71 permit renewal was approved on December 1, 2003 and monitoring requirements were expanded from previous monitoring commitments listed in the permit. This expansion has resulted in acquiring data that was not obtained in past monitoring programs. In 2012, RAML submitted an updated application for permit renewal to New Mexico Environment Department, which is currently under review.

Section 15A:

Activities that included the remediation of the Section 4 evaporation ponds were conducted from 2005 through 2009. There were no operations or soil removal activities conducted at Section 4 during the 3rd quarter of 2012.

All wells associated with the permit were dry or contained insufficient water for sample collection with the exception of MW-32. Water was detected in MW-22 and MW-23, but samples were un-attainable due to insufficient depth of the water column.

Exhibit 1 presents the time versus concentration plots and hydrographs for MW-22, MW-23, and MW-32. Because of the deficiency of alluvial water in the Section 4 pond area, development of a potentiometric map for the alluvium is not practical.

Rain showers occurred on the following dates:

- July 5th, 8th, 11th, 13th, 16th, 24th, 26th, and 31st,
- August 2nd, 5th, 13th, 14th, 20th, 23th, and 24th, and
- September 11th, 12th, 13th, 24th, and 27th.

Section 15B:

Exhibit 2 presents a table titled Section 4 Monitoring Wells, Analytical Results and Water Level Measurements for this reporting period. Exhibit 3 provides a table titled Section 4 Active Monitoring Wells, Analytical Results and Water Level Measurements for a cumulative period since 2005.

Section 15C:

Exhibit 4 provides a copy of the signed laboratory analyses for this reporting period.

Section 15D:

Exhibit 1 presents the time versus concentration plots and hydrographs for MW-22, MW-23, and MW-32 since approximately 1995.

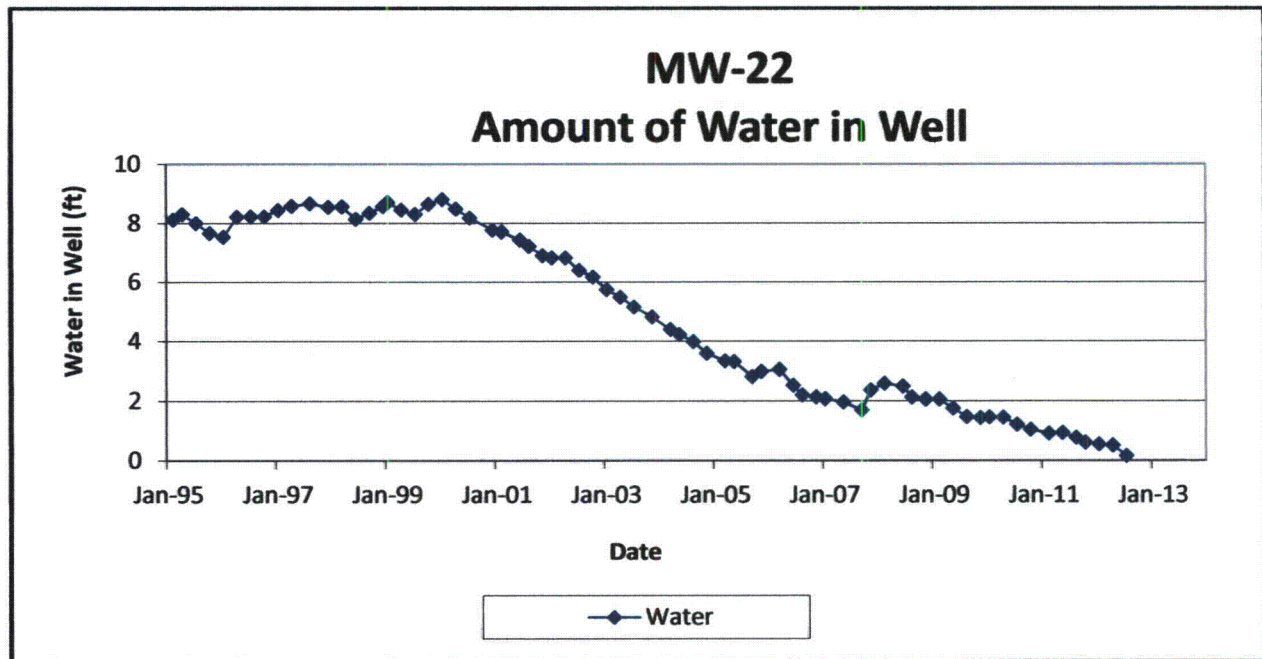
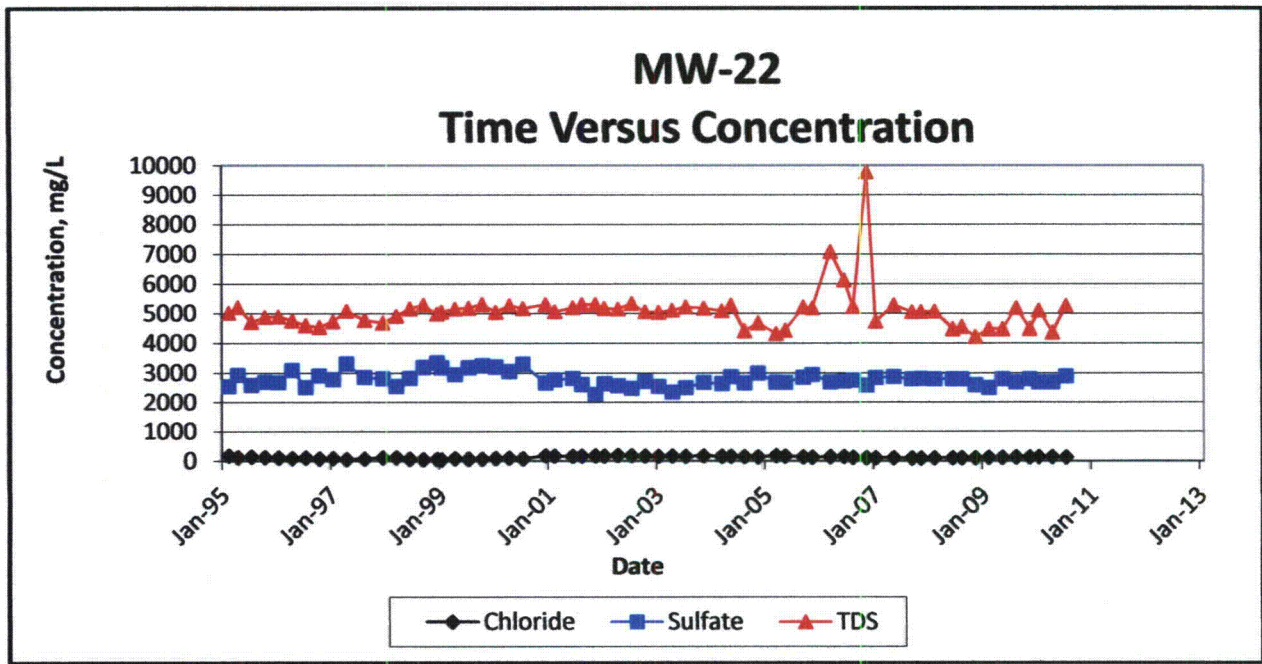
Section 15E:

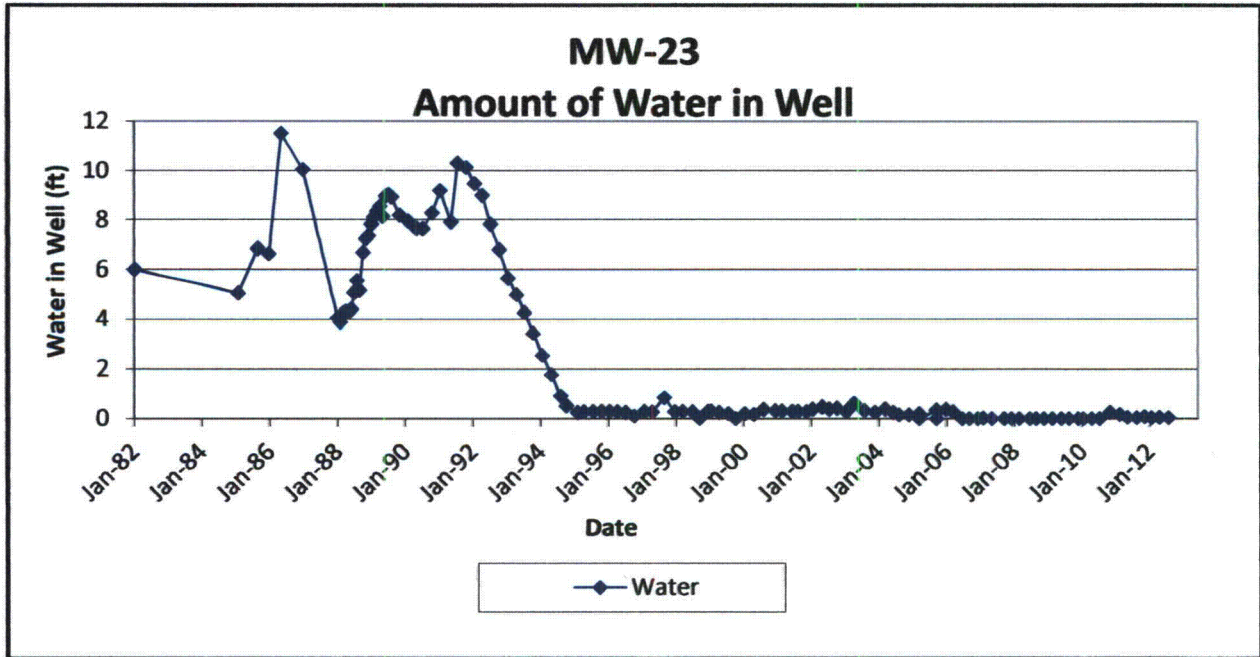
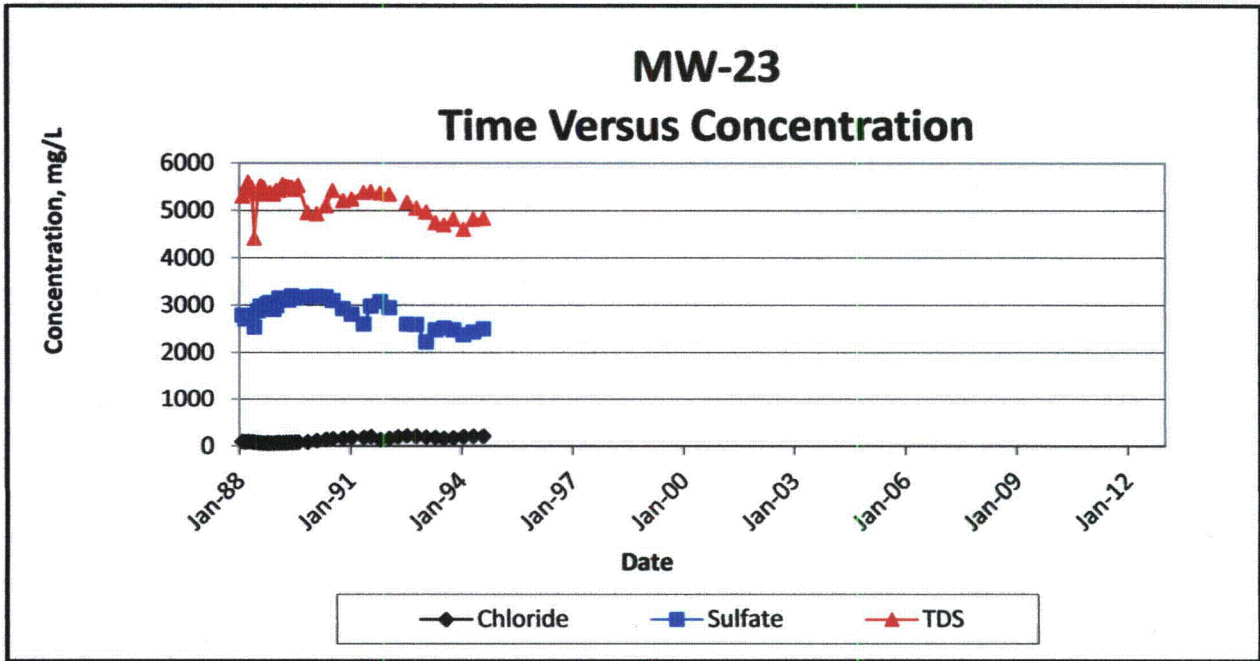
Because of insufficient alluvial water in the Section 4 pond area and since many of the monitoring wells are dry, the development of a potentiometric map for the alluvium was not undertaken.

Exhibit 1

DP-71 Time vs. Concentration Plots and Hydrographs

MW-22, MW-23, and MW-32





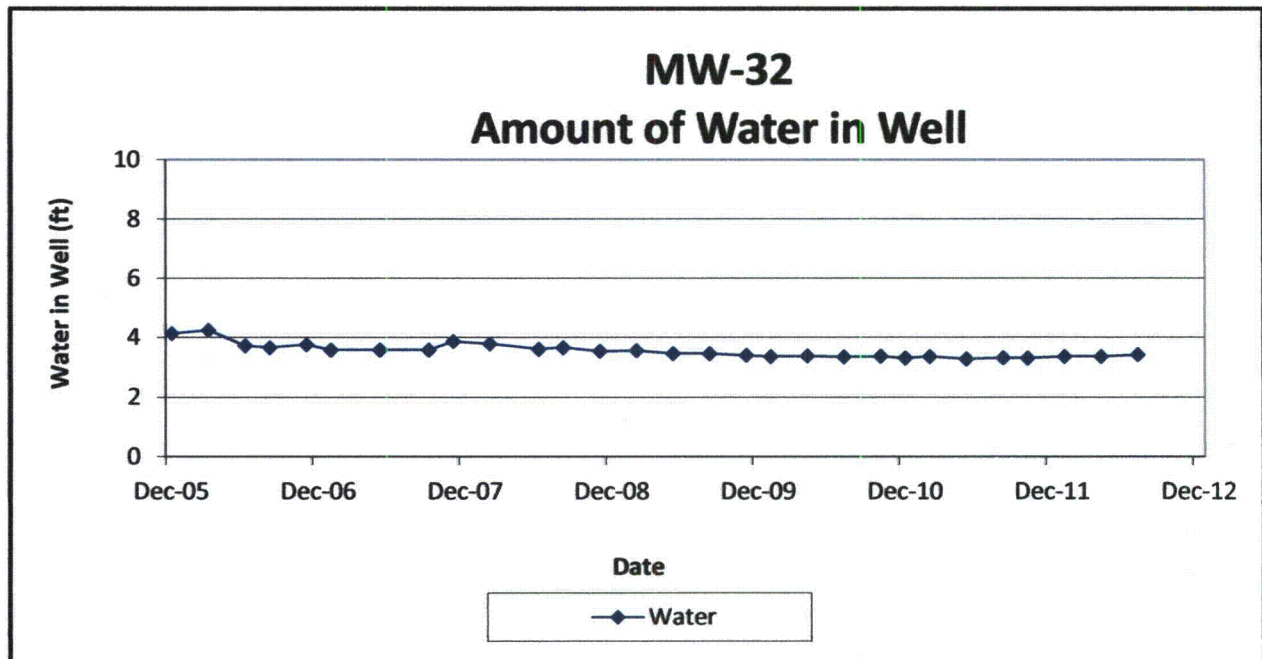
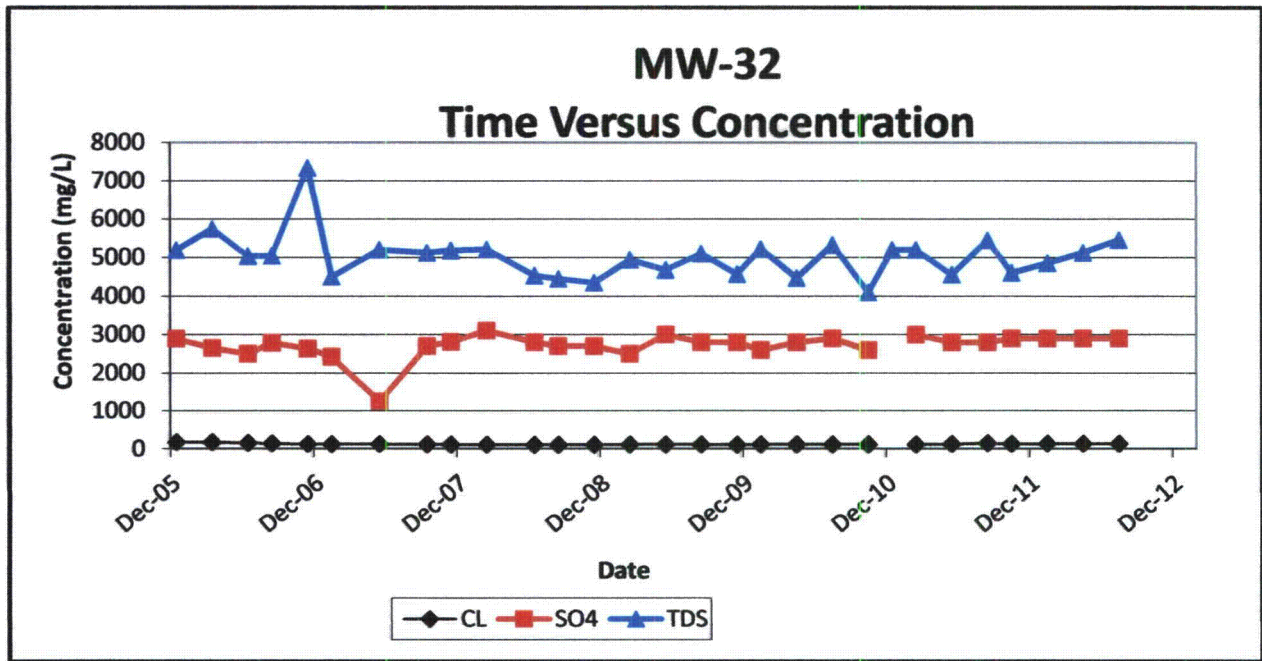


Exhibit 2

Section 4 Monitoring Wells, Analytical Results & Water Level Measurements

RIO ALGOM MINING LLC
DISCHARGE PERMIT - DP-71
MONITORING RESULTS - 3RD QUARTER 2012

Date	Location	Depth to Water (ft)	Total Depth (ft)	Water Level (ft)	Well Status	pH (s.u.)	Spec. Cond. (uS)	Temp. (C)	As (mg/L)	Se (mg/L)	U (mg/L)	Cl (mg/L)	NO ₃ (N) (mg/L)	TDS (mg/L)	SO ₄ (mg/L)
07/17/12	MW-12			0	NS										
07/17/12	MW-13			0	NS										
07/17/12	MW-22	36.85	37.01	0.16	NS										
07/17/12	MW-23	41.73	41.77	0.04	NS										
07/17/12	MW-24			0	NS										
07/17/12	MW-25			0	NS										
07/17/12	MW-26			0	NS										
07/17/12	MW-27			0	NS										
07/17/12	MW-28			0	NS										
07/17/12	MW-29			0	NS										
07/17/12	MW-30			0	NS										
07/17/12	MW-31			0	NS										
07/17/12	MW-32	68.23	71.64	3.41		7.29	4470	14.6	<0.003	0.4110	0.0694	140	62	5460	2900
07/17/12	MW-33			0	NS										

Notes:

Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection

Monitoring Wells MW-1 through MW-11, MW-14 through MW-21 were plugged during the Section 4 reclamation project

< Indicates "U" qualifier, analyte concentration not detected above MDL

Exhibit 3

**Section 4 Active Monitoring Wells
Cumulative Analytical Results & Water Level Measurements**

Monitoring Well-22 Analytical Data

Monitoring Well	Date	Well Status	Depth to Water	Total Depth	Water in Well	Sp. Cond.	Temp. (C)	pH	Ca (mg/L)	Cl (mg/L)	F (mg/L)	NO ₃ (N) (mg/L)	SO ₄ (mg/L)	TDS (mg/L)	HCO ₃ (mg/L)	CO ₂ (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)
MW-22	15-Nov-05		34	36.99	2.99	6110	11.5	7.73	480	130	0.4	106	2950	5200	209	< 2	257	656	8
MW-22	07-Mar-08		33.94	37	3.06	5650	13.1	7.13		146		23.5	2700	7090					
MW-22	06-Jun-08		34.22	36.75	2.53	5910	15.9	7.01	558	151		1.2	2730	8140	947	<2	274	673	9
MW-22	29-Aug-08		34.80	36.80	2.2	5640	14.7	6.53		124		18	2760	8240					
MW-22	27-Nov-08		34.81	36.75	2.14	5650	10.6	6.32	439	110	0.5	0.49	2590	9790	718	<2	218	558	8
MW-22	29-Jan-07		34.71	36.79	2.08	5800	10.9	6.53	540	105	0.8	26.4	2850	4740	485		284	660	9.1
MW-22	01-May-07		34.79	36.76	1.97	5750	15.5	6.98	553	110	0.6	6.6	2880	8300	671	< 2	276	670	8
MW-22	10-Sep-07		35.10	36.80	1.7	5480	14.1	7.62		95		0.09	2800	5070					
MW-22	26-Nov-07		34.46	36.83	2.37	5480	10.1	7.9	498	89		0.78	2810	5080	581	< 2	268	655	7
MW-22	18-Feb-08		34.19	36.78	2.59	5880	11.1	7.38	475	109	0.5	27.5	2800	5090	370	23	268	670	8.1
MW-22	17-Jun-08		34.3	36.8	2.5	5620	15.2	7.38	485	110	0.5	67	2800	4490	242	< 2	249	705	10
MW-22	18-Aug-08		34.65	36.78	2.13	5670	15.2	7.14	531	110	0.8	62.2	2800	4670	248	< 2	264	681	6
MW-22	10-Nov-08		34.66	36.72	2.06	5530	12.7	7.2	484	110	0.6	34.8	2600	4230	236	< 2	255	655	6
MW-22	09-Feb-09		34.74	36.80	2.06	5400	12.7	7.18		120		50.7	2500	4490					
MW-22	18-May-09		35.04	36.8	1.76	5110	17.2	7.35	485	120	0.6	46.6	2800	4490	230	6	259	677	5
MW-22	08-Aug-09		35.35	36.82	1.47	5720	14.9	7.28		130		31.8	2700	5210					
MW-22	16-Nov-09		35.40	36.84	1.44	5250	11.8	7.16	554	130	0.8	17.1	2800	4500	251		381	475	7
MW-22	12-Jan-10		35.39	36.85	1.46	5130	12.4	7.23		140		14.4	2700	6120					
MW-22	12-Apr-10		35.42	36.87	1.45	5190	15.5	7.27	473	140	0.7	19	2700	4380	231	<2	267	667	5
MW-22	05-Jul-10		35.68	36.89	1.21	5580	14.4	7.05		130		21.9	2900	5290					
MW-22	28-Oct-10	NS	35.85	36.89	1.04														
MW-22	08-Feb-11	NS	35.98	36.89	0.91														
MW-22	02-May-11	NS	36.05	36.99	0.93														
MW-22	09-Aug-11	NS	36.21	36.98	0.77														
MW-22	31-Oct-11	NS	36.37	36.98	0.61														
MW-22	17-Jan-12	NS	36.43	36.99	0.55														
MW-22	10-Apr-12	NS	36.49	37.00	0.51														
MW-22	17-Jul-12	NS	36.85	37.01	0.16														

Monitoring Well	Date	Al (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	As (mg/L)	Se (mg/L)	U (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	TKN (mg/L)	Ag (mg/L)	Zn (mg/L)	Re-226 (pCi/L)	Ra-226 (pCi/L)
MW-22	15-Nov-05	0.2	< 0.06	< 0.05	< 0.05	< 0.05	< 0.003	0.483	0.0392	< 0.1	< 0.003	0.04	< 0.05	< 0.05	< 0.2	< 0.05	< 0.05	1.32	1.32
MW-22	07-Mar-08						< 0.0011	0.718	0.0211										
MW-22	06-Jun-08	2.4	< 0.03	< 0.05	0.06	< 0.05	0.003	0.133	0.0617	24	< 0.0002	136	< 0.05	< 0.05	7.4	< 0.05	0.08	13.6	13.6
MW-22	29-Aug-08						0.011	0.135	0.0276										
MW-22	27-Nov-08	< 0.2	< 0.03	< 0.05	0.06	< 0.05	0.0091	0.00548	0.0141	17.8	0.0003	31.4	< 0.05	< 0.05	4.8	< 0.05	< 0.05	9.9	9.9
MW-22	29-Jan-07	< 0.03	< 0.005	< 0.01	0.02	< 0.01	0.0075	0.104	0.0302	3.55	< 0.0001	17.1	< 0.01	< 0.01	9.4	< 0.01	< 0.01		
MW-22	01-May-07	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.01	0.0304	0.0327	8.6	< 0.0005	17.3	< 0.05	< 0.05	6.6	< 0.05	< 0.05	1.7	3.5
MW-22	10-Sep-07						0.0208	0.0247	0.0413										
MW-22	26-Nov-07	< 2	< 0.03	< 0.05	< 0.05	< 0.05	0.0058	0.0427	0.0454	0.6	0.0001	5.52	< 0.05	< 0.05	2.8	0.15	< 0.05	1.1	2.4
MW-22	18-Feb-08	0.04	< 0.0005	0.04	< 0.01	< 0.01	0.009	0.129	0.037	0.05	< 0.0005	1.64	< 0.01	< 0.05	1	< 0.01	0.02		
MW-22	17-Jun-08	0.4	< 0.03	< 0.08	< 0.05	< 0.05	0.011	0.309	0.0263	0.1	< 0.0008	0.42	< 0.05	< 0.05	0.3	< 0.05	< 0.05	1.75	1.75
MW-22	18-Aug-08	< 0.2	< 0.03	< 0.05	< 0.05	0.45	0.017	0.251	0.0405	< 0.1	< 0.0008	0.04	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05		
MW-22	10-Nov-08	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.006	0.212	0.0276	< 0.1	< 0.0005	< 0.03	0.08	< 0.05	0.2	0.05	< 0.05	0.14	0.8
MW-22	09-Feb-09						0.0107	0.266	0.0321										
MW-22	18-May-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.009	0.264	0.0255	< 0.1	0.0011	0.39	< 0.05	0.13	0.3	< 0.05	< 0.05	0.21	1.4
MW-22	08-Aug-09						0.005	0.175	0.0571										
MW-22	16-Nov-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.004	0.119	0.0326	< 0.1	< 0.0005	0.49	< 0.05	< 0.05	1.9	< 0.05	0.10	0.42	0.47
MW-22	12-Jan-10						0.004	0.105	0.0367										
MW-22	12-Apr-10	< 0.2	< 0.03	< 0.05	0.05	< 0.05	0.006	0.1300	0.0358	0.3	< 0.0005	0.84	< 0.05	< 0.05	1.2	< 0.05	< 0.05	0.42	0.3
MW-22	05-Jul-10						0.006	0.1350	0.0309										
MW-22	28-Oct-10																		
MW-22	08-Feb-11																		
MW-22	02-May-11																		
MW-22	09-Aug-11																		
MW-22	31-Oct-11																		
MW-22	17-Jan-12																		
MW-22	10-Apr-12																		
MW-22	17-Jul-12																		

Note: Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.

Monitoring Well-23 Analytical Data

Monitoring Well	Date	Well Status	Depth to Water	Total Depth	Water in Well	Sp. Cond.	Temp. (C)	pH	Ca (mg/L)	Cl (mg/L)	F (mg/L)	NO3(N) (mg/L)	SO4 (mg/L)	TDS (mg/L)
MW-23	08-Mar-05		41.8	42	0.2									
MW-23	08-Mar-05			49.76	0									
MW-23	09-Sep-05		41.65	42	0.35									
MW-23	09-Sep-05			54.54	0									
MW-23	20-Dec-05	NS	41.63	42.00	0.37									
MW-23	07-Mar-06	NS	41.72	42.00	0.28									
MW-23	13-Jun-06	NS		41.65	0									
MW-23	29-Aug-06	NS		41.71	0									
MW-23	27-Nov-06	NS		41.71	0									
MW-23	26-Jan-07	NS	41.75	41.77	0.02									
MW-23	30-Apr-07	NS		41.71	0									
MW-23	10-Sep-07	NS		41.72	0									
MW-23	26-Nov-07	NS		41.80	0									
MW-23	18-Feb-08	NS		41.8	0									
MW-23	12-Jun-08	NS		41.73	0									
MW-23	18-Aug-08	NS		41.8	0									
MW-23	10-Nov-08	NS		4462	0									
MW-23	09-Feb-09	NS		41.67	0									
MW-23	18-May-09	NS		41.67	0									
MW-23	06-Aug-09	NS		41.72	0									
MW-23	17-Nov-09	NS		41.73	0									
MW-23	12-Jan-10	NS		41.73	0									
MW-23	12-Apr-10	NS		41.73	0									
MW-23	05-Jul-10	NS		41.73	0									
MW-23	26-Oct-10	NS	41.48	41.73	0.25									
MW-23	08-Feb-11	NS	41.54	41.71	0.17									
MW-23	02-May-11	NS	41.71	41.76	0.05									
MW-23	09-Aug-11	NS	41.72	41.76	0.04									
MW-23	31-Oct-11	NS	41.71	41.79	0.08									
MW-23	17-Jan-12	NS	41.73	41.76	0.03									
MW-23	10-Apr-12	NS	41.71	41.76	0.05									
MW-23	17-Jul-12	NS	41.73	41.77	0.04									

Note: Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.

Monitoring Well-32 Analytical Data

Monitoring Well	Date	Well Status	Depth to Water	Total Depth	Water in Well	Sp. Cond.	Temp. (C)	pH	Ca (mg/L)	Cl (mg/L)	F (mg/L)	NO ₃ (N) (mg/L)	SO ₄ (mg/L)	TDS (mg/L)	HCO ₃ (mg/L)	CO ₃ (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)
MW-32	20-Dec-05		87.97	72.10	4.13	6010	12	7.54	547	179	1	91	2890	5190	353	< 2	324	486	9
MW-32	07-Mar-08		87.58	71.8	4.24	5820	13.5	6.91		183		0.74	2650	5740					
MW-32	12-Jun-08		87.92	71.83	3.71	5470	14	7.3	537	160	1	1.98	2500	5030	939	< 2	333	487	7
MW-32	29-Aug-08		87.88	71.83	3.65	5290	15	6.89		149		9.7	2780	5040					
MW-32	27-Nov-08		88.00	71.75	3.75	5070	12.7	6.34	525	130	0.9	2.01	2630	7340	805	< 2	336	478	7
MW-32	29-Jan-07		88.05	71.82	3.57	5340	11.3	6.51	566	126	1.2	1.44	2420	4500	881		363	485	7.3
MW-32	01-May-07		88.07	71.84	3.57	5400	13.5	7.21	579	130	0.8	6.6	1250	5200	1060	< 2	359	499	7
MW-32	10-Sep-07		88.08	71.65	3.57	5810	15.2	7.28		124		2.1	2700	5120					
MW-32	26-Nov-07		87.88	71.72	3.88	5310	11.9	7.34	579	117		18.9	2810	5180	743	< 2	366	515	8
MW-32	18-Feb-08		87.91	71.89	3.78	5870	11.9	7.6	510	115	0.9	22.3	3100	5210	828	14	341	447	7.3
MW-32	17-Jun-08		88.01	71.61	3.6	5280	14.5	7.2	518	110	1	49.5	2800	4530	400	< 2	348	502	11
MW-32	26-Aug-08		88.01	71.68	3.65	5380	15.9	7.12	584	110	1	43.3	2700	4450	370	< 2	343	485	6
MW-32	10-Nov-08		87.86	71.49	3.53	5210	12.3	7.1	521	110	0.9	37	2700	4350	356	< 2	344	482	6
MW-32	09-Feb-09		88.05	71.80	3.55	5270	12.1	7.08		120		48	2500	4940					
MW-32	18-May-09		88.15	71.6	3.45	5160	14.8	7.19	525	120	0.9	37.2	3000	4880	339	10	352	460	5
MW-32	08-Aug-09		88.16	71.81	3.46	5710	15.3	7.01		120		53.9	2800	5100					
MW-32	18-Nov-09		88.23	71.82	3.39	5160	12.9	7.13	483	110	0.9	50.7	2800	4570	355	< 2	270	687	6
MW-32	12-Jan-10		88.26	71.61	3.35	5080	13.0	7.21		120		46.8	2600	5220					
MW-32	12-Apr-10		88.25	71.82	3.37	5250	14.7	7.29	542	120	1.0	60	2800	4470	308	< 2	365	455	6
MW-32	05-Jul-10		88.28	71.62	3.34	5380	15.8	7.03		120		69.4	2900	5330					
MW-32	26-Oct-10		88.26	71.82	3.38	4810	13.3	7.13	543	120	1.0	55	2600	4100			364	464	6
MW-32	27-Dec-10		88.31	71.81	3.30	4540	11.9	7.18						5200	268	< 2			
MW-32	08-Feb-11		88.27	71.82	3.35	3470	12.2	7.25		120		63	3000	5200					
MW-32	02-May-11		88.36	71.83	3.27	1732	14.2	7.05	583	130	1.0	57	2800	4560	271	< 2	399	474	7
MW-32	09-Aug-11		88.32	71.83	3.31	5330	14.5	7.09		151		59.4	2800	5490					
MW-32	31-Oct-11		88.31	71.61	3.30	4890	13.5	7.06	558	130	1.0	56	2900	4610	271	< 2	403	445	6
MW-32	16-Jan-12		88.28	71.81	3.35	4180	12.4	7.19		140		57.4	2900	4880					
MW-32	10-Apr-12		88.27	71.82	3.35	4310	14.1	7.15	537	140	1.0	62.8	2900	5130	269	< 2	364	455	6
MW-32	17-Jul-12		88.23	71.84	3.41	4470	14.6	7.29		140		62	2900	5480					

Monitoring Well	Date	Al (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	As (mg/L)	Se (mg/L)	U (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Mo (mg/L)	Ni (mg/L)	TKN (mg/L)	Ag (mg/L)	Zn (mg/L)	Re-226 (pCi/L)	Re-228 (pCi/L)
MW-32	20-Dec-05	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	< 0.003	0.357	0.0993	< 0.1	0.0009	0.61	< 0.05	< 0.05	1.3	< 0.05	< 0.05	0.13	0.13
MW-32	07-Mar-08						0.0078	0.035	0.0987										
MW-32	12-Jun-08	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.022	0.0175	0.0604	0.1	< 0.0002	1.78	< 0.05	< 0.05	6.3	< 0.05	< 0.05	1.2	1.2
MW-32	29-Aug-08						0.005	0.0287	0.0912										
MW-32	27-Nov-08	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.0139	0.0186	0.0592	2.8	0.0001	1.41	< 0.05	< 0.05	2.3	< 0.05	< 0.05	2.6	2.6
MW-32	29-Jan-07	< 0.03	< 0.005	< 0.01	< 0.01	< 0.01	0.0162	0.0258	0.0404	0.89	< 0.0001	1.8	< 0.01	0.03	2.6	< 0.01	< 0.01		
MW-32	01-May-07	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.021	0.0218	0.0604	0.7	< 0.0005	1.62	0.06	< 0.05	6.6	< 0.05	< 0.05	0.33	1.8
MW-32	10-Sep-07						0.0129	0.0191	0.0736										
MW-32	26-Nov-07	< 2	< 0.03	< 0.05	< 0.05	< 0.05	0.004	0.0256	0.0326	0.3	< 0.0005	1.07	< 0.05	< 0.05	6.9	0.08	0.19	0.38	3.7
MW-32	18-Feb-08	0.04	< 0.005	0.04	< 0.01	< 0.01	0.014	0.0753	0.0842	0.28	< 0.0005	0.815	< 0.02	< 0.05	2.9	< 0.02	< 0.01		
MW-32	17-Jun-08	0.5	< 0.03	< 0.05	< 0.05	< 0.05	0.009	0.141	0.0846	2	< 0.0005	0.81	0.06	< 0.05	0.3	< 0.05	< 0.05	3.25	3.25
MW-32	26-Aug-08	< 2	< 0.03		< 0.05	< 0.05	0.018	0.16	0.197	< 0.1	< 0.0005	0.69	< 0.05	< 0.05	< 0.1	0.11	< 0.05		
MW-32	10-Nov-08	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.004	0.184	0.0655	< 0.1	< 0.0005	0.48	0.07	< 0.05	0.1	< 0.05	0.06	0.3	0.38
MW-32	09-Feb-09						0.0084	0.188	0.0691										
MW-32	18-May-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.007	0.148	0.0592	< 0.1	0.0009	0.43	< 0.05	< 0.05	0.3	< 0.05	< 0.05	0.29	1.8
MW-32	08-Aug-09						0.005	0.174	0.0641										
MW-32	16-Nov-09	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.009	0.178	0.0744	< 0.1	< 0.0005	0.94	< 0.05	< 0.05	0.1	0.1	< 0.05	0.57	0.73
MW-32	12-Jan-10						0.008	0.243	0.0738										
MW-32	12-Apr-10	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.012	0.225	0.0710	< 0.1	0.0005	0.51	< 0.05	< 0.05	0.4	< 0.05	< 0.05	0.26	0.82
MW-32	06-Jul-10						0.007	0.336	0.0556										
MW-32	26-Oct-10	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	0.011	0.2356	0.0620	< 0.1	0.0018	0.50	< 0.05	< 0.05	0.5	< 0.05	< 0.05	0.34	1.2
MW-32	27-Dec-10																		
MW-32	08-Feb-11						0.014	0.3775	0.0834										
MW-32	02-May-11	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	< 0.05	0.3463	0.0674	< 0.1	< 0.0005	0.1	0.07	0.06	0.1	< 0.05	< 0.05	0.25	0.5
MW-32	09-Aug-11						0.013	0.3533	0.0583										
MW-32	31-Oct-11	< 0.2	< 0.005	< 0.01	< 0.01	< 0.02	< 0.003	0.3562	0.0627	< 0.02	0.0006	0.047	< 0.01	< 0.05	0.1	< 0.01	< 0.01	4.2	< 0.15
MW-32	16-Jan-12						< 0.003	0.4151	0.0628										
MW-32	10-Apr-12	< 0.2	< 0.03	< 0.05	< 0.05	< 0.05	< 0.003	0.3786	0.1007	< 0.1	< 0.0005	0.07	< 0.05	< 0.05	0.2	< 0.05	< 0.05	0.37	0.83
MW-32	17-Jul-12						< 0.003	0.4110	0.0694										

Note: Well status listed as "NS" indicates the well was either dry or contained insufficient water for sample collection.

Exhibit 4

DP-71 Analytical Report

August 01, 2012

Report to:
Chuck Wentz
Rio Algom Mining Company
P.O. Box 218
Grants, NM 87020

Bill to:
Accounts Payable
Rio Algom Mining Company
P.O. Box 218
Grants, NM 87020

Project ID: 58408/620156018
ACZ Project ID: L95749

Chuck Wentz:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 19, 2012. This project has been assigned to ACZ's project number, L95749. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L95749. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 01, 2012. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed
and approved this report.



REPAD.01.06.05.02



Page 1 of 11

Rio Algom Mining Company
Project ID: 58408/620156018
Sample ID: MW-32

ACZ Sample ID: **L95749-01**
Date Sampled: 07/17/12 12:24
Date Received: 07/19/12
Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS			U	mg/L	0.001	0.005	07/31/12 5:03	pmc
Selenium, dissolved	M200.8 ICP-MS	0.4110			mg/L	0.0005	0.001	07/31/12 5:03	pmc
Uranium, dissolved	M200.8 ICP-MS	0.0694			mg/L	0.0005	0.003	07/31/12 5:03	pmc

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride	SM4500Cl-E	140			mg/L	5	30	07/30/12 20:25	mpb
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	62		*	mg/L	1	5	07/28/12 13:40	pjb
Residue, Filterable (TDS) @180C	SM2540C	5460		*	mg/L	10	20	07/20/12 16:53	abm
Sulfate	D516-02 - Turbidimetric	2900		*	mg/L	100	500	07/27/12 14:58	tdc



Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Type

AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- (5) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995 & 20th edition (1998).

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<http://www.acz.com/public/extqualist.pdf>

Rio Algom Mining Company
 Project ID: 58408/620156018

ACZ Project ID: L95749

Arsenic, dissolved		M200.8 ICP-MS											
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG327340													
WG327340ICV	ICV	07/31/12 4:54	MS120710-2	.05		.05375	mg/L	107.5	90	110			
WG327340ICB	ICB	07/31/12 4:57				U	mg/L		-0.0006	0.0006			
WG327340LFB	LFB	07/31/12 5:00	MS120702-3	.05005		.04962	mg/L	99.1	85	115			
L95772-05AS	AS	07/31/12 5:24	MS120702-3	.05005	U	.05808	mg/L	116	70	130			
L95772-05ASD	ASD	07/31/12 5:33	MS120702-3	.05005	U	.05665	mg/L	111.2	70	130	4.27	20	

Chloride		SM4500Cl-E											
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG327337													
WG327337ICB	ICB	07/30/12 19:39				U	mg/L		-3	3			
WG327337ICV	ICV	07/30/12 19:39	WI120312-3	55.11		60.1	mg/L	109.1	90	110			
L95746-05AS	AS	07/30/12 20:23	WI120716-1	300	120	443	mg/L	107.7	90	110			
L95746-06DUP	DUP	07/30/12 20:23			12	12.4	mg/L				3.3	20	
WG327337LFB1	LFB	07/30/12 20:45	WI120716-1	30		33	mg/L	110	90	110			
WG327337LFB2	LFB	07/30/12 20:45	WI120716-1	30		32.7	mg/L	109	90	110			

Nitrate/Nitrite as N		M353.2 - H2SO4 preserved											
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG327246													
WG327246ICV	ICV	07/28/12 12:42	WI120706-1	2.416		2.489	mg/L	103	90	110			
WG327246ICB	ICB	07/28/12 12:43				U	mg/L		-0.06	0.06			
WG327246LFB1	LFB	07/28/12 12:46	WI120211-3	2		2.05	mg/L	102.5	90	110			
L95742-01AS	AS	07/28/12 12:49	WI120211-3	2	.08	2.034	mg/L	97.7	90	110			
L95742-02DUP	DUP	07/28/12 12:51			U	U	mg/L				0	20	RA
WG327246LFB2	LFB	07/28/12 13:20	WI120211-3	2		1.964	mg/L	98.2	90	110			

Residue, Filterable (TDS) @180C		SM2540C											
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG326716													
WG326716PBW	PBW	07/20/12 16:40				U	mg/L		-20	20			
WG326716LCSW	LCSW	07/20/12 16:40	PCN36661	260		252	mg/L	96.9	80	120			
L95780-07DUP	DUP	07/20/12 16:59			2080	2048	mg/L				1.6	20	

Selenium, dissolved		M200.8 ICP-MS											
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG327340													
WG327340ICV	ICV	07/31/12 4:54	MS120710-2	.05		.05364	mg/L	107.3	90	110			
WG327340ICB	ICB	07/31/12 4:57				U	mg/L		-0.0003	0.0003			
WG327340LFB	LFB	07/31/12 5:00	MS120702-3	.05005		.04938	mg/L	98.7	85	115			
L95772-05AS	AS	07/31/12 5:24	MS120702-3	.05005	U	.06039	mg/L	120.7	70	130			
L95772-05ASD	ASD	07/31/12 5:33	MS120702-3	.05005	U	.05907	mg/L	118	70	130	2.21	20	

Rio Algom Mining Company
 Project ID: 58408/620156018

ACZ Project ID: **L95749**

Sulfate													D516-02 - Turbidimetric	
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual	
WG327206														
WG327206ICB	ICB	07/27/12 11:41				U	mg/L		-3	3				
WG327206ICV	ICV	07/27/12 11:41	W1120727-2	20		19.4	mg/L	97	90	110				
WG327206LFB	LFB	07/27/12 14:38	W1120508-1	10		9.9	mg/L	99	90	110				
L95743-01DUP	DUP	07/27/12 14:57			250	259	mg/L				0.4	20		
L95743-02AS	AS	07/27/12 14:57	GO4TURB20	10	320	286	mg/L	-320	90	110				M3

Uranium, dissolved													M200.8 ICP-MS	
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual	
WG327340														
WG327340ICV	ICV	07/31/12 4:54	MS120710-2	.05		.05277	mg/L	105.5	90	110				
WG327340ICB	ICB	07/31/12 4:57				U	mg/L		-0.0003	0.0003				
WG327340LFB	LFB	07/31/12 5:00	MS120702-3	.05		.05097	mg/L	101.9	85	115				
L95772-05AS	AS	07/31/12 5:24	MS120702-3	.05	.0023	.05613	mg/L	107.7	70	130				
L95772-05ASD	ASD	07/31/12 5:33	MS120702-3	.05	.0023	.0555	mg/L	106.4	70	130	1.13	20		

Rio Algom Mining Company

ACZ Project ID: **L95749**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L95749-01	WG327246	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (7.10x MDL).
	WG325716	Residue, Filterable (TDS) @180C	SM2540C	ZO	Concentration is based on a final residue greater than 200 mg.
	WG327206	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

REPAD.15.06.05.01

Rio Algom Mining Company

ACZ Project ID: **L95749**

No certification qualifiers associated with this analysis

Rio Algom Mining Company
 58408/620156018

ACZ Project ID: L95749
 Date Received: 07/19/2012 09:56
 Received By: ksj
 Date Printed: 7/19/2012

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?			X
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody complete and accurate?	X		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits?	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA15795	4.1	13	Yes

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

RIO ALGOM MINING LLC - PROJECT CODES

ACL-ALL	ACL-TRB	ACL-TRA	ACL-KD	DP-71-Q	SEC 4 PONDS ^{see note}	DP-71-S
50/year	30/year	15/year	35/year	10/year	20/year	10/year
Chloride	Chloride	Chloride	Chloride	Chloride	Chloride	Chloride
Sulfate	Sulfate	Sulfate	Sulfate	Sulfate	Sulfate	Sulfate
TDS	TDS	TDS	TDS	TDS	TDS	TDS
Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite
Molybdenum	Cyanide	Cyanide	Antimony	Arsenic	Arsenic	Arsenic
Nickel	Molybdenum	Molybdenum	Arsenic	Selenium	Selenium	Selenium
Selenium	Nickel	Nickel	Beryllium	Uranium	Uranium	Uranium
Gross Alpha	Selenium	Selenium	Cadmium		Carbonate (CO ₃)	Carbonate (CO ₃)
Radium-226	Gross Alpha	Gross Alpha	Cyanide		Bicarbonate (HCO ₃)	Bicarbonate (HCO ₃)
Radium-228	Radium-226	Radium-226	Lead		Calcium	Calcium
Thorium-230	Radium-228	Radium-228	Molybdenum		Potassium	Potassium
Lead-210	Thorium-230	Thorium-230	Nickel		Magnesium	Magnesium
Uranium	Lead-210	Lead-210	Selenium		Sodium	Sodium
	Uranium	Uranium	Gross Alpha		Lead	Lead
			Radium-226		Nickel	Nickel
			Radium-228		Silver	Silver
			Thorium-230		Iron	Iron
			Lead-210		Molybdenum	Molybdenum
			Uranium		Zinc	Zinc
					Manganese	Manganese
					Copper	Copper
					Cobalt	Cobalt
					Chromium	Chromium
					Cadmium	Cadmium
					Aluminum	Aluminum
					Fluoride	Fluoride
					Radium-226	Radium-226
					Radium-228	Radium-228
					Total Kjeldal nitrogen	Total Kjeldal nitrogen

SHIPPING DOCUMENT

SHIPPING DOCUMENT NO. 58406

Rio Algom Mining LLC

DATE: 7/17/2012

P.O. Box 218
Hwy. 605 & 509
Grants, NM 87020
(505) 287-8851

SHIP VIA: UPS

PO or REF. NO.

Scanning for unrestricted use required: Yes _____ No X _____

SHIPPED TO

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO. 80487
(800) 334-5493

Scanned by:

Removal: _____ 100cm²

Average _____ dpm/100cm²

ITEM NO.	QUANTITY		CHARGE TO:
1	Cooler	Ground Water Sample	PO# 620156018

SPECIAL INSTRUCTIONS:

Shipping Cost:

REQUESTED BY: HS

APPROVED BY: Billy Ray

MATERIAL PICKED UP BY: _____

DATE: _____