

Rio Algom Mining LLC

August 13, 2013

CERTIFIED MAIL

Mr. David L. Mayerson
New Mexico Environment Department
1190 St Francis Dr.
P.O. Box 5469
Santa Fe, NM 87502

Re: **Discharge Plan - 169**
Semi-Annual Report, 1st Half 2013

Dear Mr. Mayerson:

Attached is the Rio Algom Mining LLC's semi-annual groundwater monitoring report for the 1st half of 2013. This permit requires the monitoring and reporting of well data from the alluvium in the vicinity of the tailings area. An electronic copy of the report will follow by e-mail and a CD copy of the analytical results is included under cover of this letter (NMED copy only). If you have any questions or need additional information, please call me at 505-236-1821.

Sincerely,



Billy Ray
Site Manager

Attachment: As stated

cc: NRC (MD) – License SUA-1473, Docket No. 40-8905
K. Black
D. Murray

RIO ALGOM MINING LLC – AMBROSIA LAKE FACILITY
DISCHARGE PLAN – 169 (DP-169)
SEMI-ANNUAL REPORT, 1st HALF 2012

Review of Discharge Plan - 169

This report presents the activities and results of the monitoring and sampling requirements associated with DP-169 for the 1st half of 2013. New Mexico Environment Department's (NMED) Discharge Permit DP-169 was approved on November 15, 1995 and establishes monitoring requirements for the alluvium that has been affected as a result of byproduct material disposal at the Ambrosia Lake site.

The NRC program for the alluvium dated February 24, 2006 established Alternate Concentration Limits (ACLs) for the site. The ACLs addressed byproduct material seepage from the tailings disposal area and includes but not limited to chloride, nitrate, sulfate, and, total dissolved solids. The alluvial ACLs were established through review and consultation between NRC, NMED and RAML.

In accordance with the approved the RAML Monitoring Well Replacement Work Plan, the well replacement project was conducted from the fall of 2012 and field work completed on February 2, 2013. The following monitoring wells replaced their antiquated counterparts and the former wells were plugged and abandoned. MW 30-03 was not replaced, but was plugged and abandoned:

MW 5-03R	MW 5-08R All/Trb	MW 30-03A	MW 30-04R
MW 30-48R KD	MW 30-68R	MW 31-01R Tra	MW 31-02R Trb
MW 31-05R	MW 31-70R	MW 32-01R	MW 32-02R
MW 32-45R KD	MW 32-50R Trb		

Note; "R" designates the monitoring well was replaced during the Monitoring Well Replacement Project. "A" designates that the well was abandoned.

Table 1 provided below presents the DP-169 groundwater monitoring data for the 1st Half 2013.

Table 1
DP-169 Sampling Results – 1st Half 2013

Monitor Well	Date	Depth to Water (ft)	Total Depth (ft)	Specific Cond.	Temp. (C)	pH	Cl (mg/l)	NO ₃ (mg/l)	SO ₄ (mg/l)	TDS (mg/l)
30-03A	03/19/13	Removed plugged & abandoned 2012 / 2013 well replacement project								
30-04R	03/19/13	55.85	72.24	5580	11.2	7.18	620	7.1	2800	5300
30-46	04/01/13	Dry	38.56							
30-47	03/18/13	52.49	77.60	6270	13.0	5.93	910	<0.2	2640	5800
30-48	03/18/13	62.08	78.99	4710	13.5	6.12	750	<0.2	1870	4160
30-49	03/18/13	64.73	67.43	6470	11.8	6.29	1200	<1.0	2840	6470
30-53	09/25/12	Dry	49.81							
30-68R	04/02/13	Dry	66.10							
31-05R	03/19/13	49.18	66.22	6760	12.4	6.90	640	1.3	3400	6340
31-61 ALL	05/06/13	15.28	29.32	13530	12.3	6.15	2200	2.6	5900	14600
31-61 ALL	02/19/13	14.91	29.32	13620	13.0	6.28	2300	2.4	6200	14100
31-63	07/17/07	Removed from service when the interceptor trench was discontinued								
31-65 ALL	05/07/13	12.50	41.47	13630	12.7	6.17	2100	0.1	6000	14300
31-65 ALL	02/19/13	16.93	46.22	13590	12.6	6.34	2400	0.1	6400	14900
31-70R	03/19/13	40.94	81.36	7360	12.8	6.83	1200	64.4	2400	6300
31-71	03/19/13	45.71	63.31	5200	12.6	7.21	590	0.15	2400	4590
32-01R	04/01/13	20.38	60.97	13890	12.9	6.06	2300	<0.02	7800	17300
32-02R	03/19/13	50.36	70.41	4550	11.9	7.17	510	1.1	2000	3870
32-41	03/19/13	36.78	57.29	4460	12.0	7.11	950	<0.2	980	2880
32-42	03/19/13	Dry	28.65							
32-43N	04/01/13	24.85	76.35	8780	13.0	6.91	1580	4.7	3600	9380
32-50R	04/02/13	50.49	88.63	5410	13.2	6.87	560	2.6	2600	5240
32-51	04/02/13	33.56	74.31	5070	12.6	7.42	380	7.9	2800	5030
32-52	04/02/13	32.81	66.13	3320	13.9	8.45	240	<0.2	1470	2620
32-56	04/02/13	Dry	57.44							
32-57	04/02/13	45.84	53.24	6250	13.1	6.58	250	2.4	3400	6010
32-58	04/01/13	17.26	34.48	11400	12.6	6.47	2790	15.4	3000	10100
32-59 ALL	05/06/13	19.86	28.26	5260	12.6	7.28	550	<0.2	2100	4790
32-59 ALL	02/18/13	19.62	28.26	5450	12.7	7.34	540	<0.2	2270	4710
32-60	04/01/13	14.34	27.73	11490	12.1	6.33	2180	4.2	4900	12200
32-69	04/01/13	40.58	66.08	8430	12.4	6.45	1730	5.1	2500	7800
32-72	04/01/13	20.45	40.02	6060	13.3	6.77	800	3.9	2500	5580
5-01	04/02/13	28.18	44.28	3780	13.9	8.75	220	<0.2	1980	3330
5-02	04/02/13	26.81	38.34	5320	14.3	7.17	1400	<0.2	680	3120
5-03R ALL	05/06/13	24.65	56.25	4750	13.3	7.18	540	1.1	1970	4210
5-03R ALL	02/18/13	24.41	56.25	5010	12.9	7.27	492	<0.2	1960	4120
5-04 ALL	05/06/13	22.37	64.05	5310	11.7	6.56	790	<0.02	2400	5290
5-04 ALL	02/18/13	22.21	64.05	5650	12.7	7.53	800	0.1	2530	5020
5-08R ALL	05/06/13	35.03	76.52	3860	12.8	7.41	210	11.1	2000	3730
5-08R ALL	02/18/13	34.81	76.52	3980	12.1	7.54	220	10.3	2010	3670
5-73R ALL	05/06/13	19.47	35.69	6820	11.3	6.80	1590	<0.2	1790	5970
5-73R ALL	02/18/13	19.28	35.69	7290	12.2	6.99	1500	1.6	1920	5740
AW-1	03/19/13	54.69	81.34	6660	11.7	6.85	690	8.1	3600	6870
AW-2	04/02/13	34.48	86.02	5090	13.1	7.23	330	5.3	2800	5200
C-3	06/13/95	Removed plugged & abandoned to facilitate site reclamation activities								
D-4	02/27/06	Removed plugged & abandoned to facilitate site reclamation activities								
E-5	02/27/06	Removed plugged & abandoned to facilitate site reclamation activities								
MW-24 ALL	05/06/13	Dry	50.43							
MW-24 ALL	02/18/13	Dry	50.43							
S-12	04/01/13	13.77	27.72	11890	12.9	6.69	2800	<0.2	4400	12700
S-9	04/01/13	10.30	23.07	10340	11.8	8.62	2270	<0.2	4000	10200

Notes:

Reported wells are in the alluvium formation

(R) Indicates wells were replaced in 2012 / 2013 during the Monitoring Well Replacement Project

"ALL" are alluvial wells also reported to the U.S. NRC in accordance with the Alternative Concentration Limit (ACL) criterion