

July 29, 2009

Technical Advisor – Mining  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

**Re: June 2009 –Monthly Monitoring Report for Water License 2BE-BOS0712 under Part J –  
Items 2 – 8 and 11 - 14.**

Following is the monthly report for June 2009 as required under Water License 2BB-BOS0712. Boston Camp facilities were shut down May 25/09. The camp will not be reopened until installation of the new Sewage Treatment Plant (STP) is completed in 2010.

Hope Bay Mining Ltd. (HBML) was not able to conclude the installation of the new STP in 2009 due to problems with the Boston Camp electrical system that could not be immediately cured. The planning for upgrading the electrical system is currently being undertaken and will be implemented in 2010 once the ice strip is available to resupply Boston. It is currently planned to fly workers from Doris to do the Boston electrical upgrade and STP implementation. Once the systems are in place the camp will be reopened. HBML does not currently intend to try and restart the existing STP as even with steps taken over the last year to optimize STP operation, it has not been possible to run the existing system in compliance with the Water Licence.

**1. PART J: ITEM 2**

Sampling was conducted during the month at monitoring station BOS-2. All parameters were found to be in compliance with the discharge criteria of the water licence, but no discharge occurred from the containment pond during the period. In accordance with Part D: Item 23, HBML will notify an Inspector at least 10 days prior to any planned discharge from this facility. Results from sampling undertaken in June are displayed in Table 1.

Table 1. Sample Analysis Results for BOS-2 Containment Pond, June 2009

Parameter/SNP Sites	BOS-2	Boston: 2BB-BOS0712	
ALS Lab Reference #	L781612-17	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Field Sample Details	BOS-2	Part J: Item 2	Part J: Item 2
Sample Date/Time	June 21/09 9:40am	Part D: Item 8	Part D: Item 8
Total Arsenic	0.176	0.5	1.00
Total Copper	0.0109	0.3	0.60
Total Lead	0.00416	0.2	0.4
Total Nickel	0.0927	0.5	1.00
Total Zinc	0.0052	0.5	1.00
Total Suspended Solids	24	25	50.0
Oil and Grease	nvs	-	No visible sheen
pH	7.86		Between 6.0 and 9.5

**2. PART J: ITEM 3**

No samples were collected at BOS-3 or BOS-4 during June as the camp closed operations on May 25/09.

### 3. **PART J: ITEM 4**

No toxicity testing was conducted during the month at monitoring station BOS-4 as the camp closed operations on May 25/09 and insufficient sewage effluent at the point prior to entry into Aimaoktatuk Lake is available for sampling at this location.

### 4. **PART J: ITEM 5**

Sampling was conducted during the month at BOS-5, BOS-6 and BOS-7 for the parameters required under this part and compared against the criteria in Part D: Item 21 for BOS-5 and BOS-6. Results of the sampling are detailed in Table 2. All parameters were found to be in compliance with the licence, with the exception of a visible sheen for oil and grease detected in the sample for BOS-6 (Landfarm Treatment Facility). No discharges are planned for this facility as there is minimal water that will likely dissipate by evaporation. During the month, station BOS-5 (Bulk Fuel Storage) was pumped and allowed to drain via gravity feed to containment pond BOS-2 (Containment Pond) to eliminate accumulated water in the secondary containment berm for the fuel storage facility. Water quality in the berm met the licence criteria for discharge. Only minor seepage was observed at monitoring station BOS-7 due to melting of accumulated snow.

Table 2. Sampling results for Monitoring Stations BOS-5, BOS-6 and BOS-7, June 2009

Parameters	BOS-5	BOS-6	BOS-7	Remarks
ALS Lab Reference #	L781613-1	L781613-2	L781615-1	License # 2BB-BOS0712
Field Sample Details	BOS-5	BOS-6	BOS-7	Part D: Item 21
Sample Date/Time	June 21/09 8:50am	June 21/09 9:00am	June 21/09 12:00pm	Part J: Item 5
pH	8.1	7.61	7.71	Between 6 - 9.5 pH units
Oil & Grease	<1.0	<1.0	<1.0	15 mg/L
Oil & Grease (Visibility)	No visible sheen	<b>Visible sheen</b>	No visible sheen	No visible sheen (NVS)
Benzene	<0.00050	<0.00050	<0.00050	370 mg/L
Toluene	<0.00050	0.0013	<0.00050	2 mg/L
Ethylbenzene	<0.00050	<0.00050	<0.00050	90 mg/L
Xylene	<0.00050	0.00225	<0.00050	-
F1 (C6-C10)	<0.10	0.11	<0.10	-
F2 (>C10-C16)	<0.25	11.37	<0.25	-
F3 (C16-C34)	0.36	1.73	<0.25	-
F4 (C34-C50)	<0.25	<0.25	<0.25	-
Total Phenols (4AAP)	0.0146	0.0274	0.0057	-
Conductivity (EC)	1110	368	1290	-
Total Hardness (as CaCO <sub>3</sub> )	506	122	478	-
Nitrate-Nitrite as N	7.5	0.089	7.97	-
Nitrate (as N)	7.05	0.089	7.91	-
Nitrite (as N)	0.449	<0.050	0.062	-
Calcium	102	40.6	145	-
Potassium	15.4	5.36	11.9	-
Magnesium	49	8.21	25.6	-
Sodium	30	10.4	32	-
Sulphate	354	12.5	178	-
Total Alkalinity (as CaCO <sub>3</sub> )	111	64.3	61	-
Total Arsenic	0.233	0.0178	0.254	-
Total Cadmium	<0.00020	<0.00020	<0.00020	-
Total Chromium	<0.0050	<0.0050	<0.0050	-
Total Copper	0.0101	0.0411	0.0027	-
Total Nickel	0.287	0.0073	0.241	-
Total Lead	0.016	0.00115	<0.00010	1 mg/L
Total Iron	0.362	0.507	0.018	-
Total Mercury	<0.00010	<0.00010	<0.00010	-

**5. PART J: ITEM 6 AND PART J: ITEM 7**

Opportunistic sampling occurred at BOS-8 during the month. Monitoring station BOS-8, plus two additional stations (BOS-8b and BOS-8c) where seepage was observed, were sampled for the parameters required under this part. The results will be analyzed and considered as part of the development of the Boston Ore/Waste Rock Management Plan that will be submitted in 2009 for review.

**6. PART J: ITEM 8**

On-ice drilling on Spyder Lake (Aimaoktatuk Lake) was completed in March 2009. No water samples were collected in the month of June.

**7. PART J: ITEM 11**

No domestic or drilling water usage occurred pertaining to this licence for the month of June.

**8. PART J: ITEM 12**

No minewater, per Part D: Item 7 was pumped from underground to containment pond BOS-2 during the month. Sampling of accumulated water from the portal on the south camp boundary was conducted using the criteria for monitoring station BOS-2. All parameters meet the water quality criteria of the licence for discharge. Results for this sampling are contained in Table 3.

Table 3. Sampling results for Boston Portal Minewater, June 2008

<b>Parameter/SNP Sites</b>	<b>BOS Portal</b>	<b>Boston: 2BB-BOS0712</b>	
ALS Lab Reference #	L781612-17	Maximum Average Concentration (mg/L)	Maximum Concentration of any Grab Sample (mg/L)
Field Sample Details	BOS Portal	Part D: Item 7	Part D: Item 7
Sample Date/Time	June 21/09 9:40am	Part D: Item 8	Part D: Item 8
Total Arsenic	0.0442	0.5	1.00
Total Copper	0.0026	0.3	0.60
Total Lead	0.00085	0.2	0.4
Total Nickel	0.0138	0.5	1.00
Total Zinc	0.0108	0.5	1.00
Total Suspended Solids	5	25	50.0
Oil and Grease	<1.0	-	No visible sheen
pH	7.05		Between 6.0 and 9.5

**9. PART J: ITEM 13**

No sewage effluent discharge occurred at monitoring station BOS-3 in the month of June.

**10. PART J: ITEM 14**

No removal of sewage sludge occurred in June as the Sewage Treatment Facility is not operational.

**11. INCIDENT REPORTING**

No incidents were reported during the period.

Should there be any questions regarding the monthly report for June 2008, please contact Chris Hanks, Director, Environment and Social Responsibility, Hope Bay Mining Limited on phone number: 720-917-4489 or email: [Chris.Hanks@Newmont.com](mailto:Chris.Hanks@Newmont.com)

Yours sincerely,

**Chris Hanks**

Director, Environment and Social Responsibility  
Hope Bay Mining Limited