

June 25, 2011

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

**Re: May 2011 –Monthly Monitoring Report for Water License 2AM-DOH0713 - Revised**

Following is the monthly report for May 2011 as required under Doris Water License No. 2AM-DOH0713 Type A. The license was issued on September 19, 2007 and will expire on September 30, 2013. The water license is specific for Mining and Milling and associated uses; the quantity of water usages shall not exceed 480,000 cubic meters annually.

This monthly report provides information on Part D (Conditions Applying to Construction) Item 19, Part E (Conditions applying to Water Use) Item 1, Part G (Conditions Applying to Waste Management and Waste Management Plans) Item 3 and 22 (e), and Part H (Conditions Applying to Modifications). As a result of further recent developments within the Doris North project, additional information pertaining to Part J (Conditions Applying to General and Aquatic Effects Monitoring) Parts 12 and 14 is included. The report also contains the relevant monitoring requirements as set out in Schedule J of the licence, plus additional requirements from INAC.

Other conditions stipulated in the license refer specially to mining and milling processes. These facilities have not been constructed at this time. As facilities are constructed and activities commence, the required monitoring programs will be implemented.

**1. Part D: Conditions Applying to Construction**

**a. Item 7. Construction Monitoring**

Construction monitoring is being undertaken and documented. This will be submitted with the annual Construction Monitoring report.

**b. Item 19. Surface Runoff Effluent Quality Limits**

Surface runoff from construction was sampled by SRK as part of the Waste Rock and Ore, and Quarry Monitoring Management Plans. Results will be included in the annual report.

**2. Part E: Item 1. Conditions Applying to Water Use**

**a. Water Usage**

Water was used for domestic camp use, underground mining and drilling brine, ice roads, wash cars, all-weather roads, construction, and geology/surface drilling. Total water usage is detailed in Table 1.

Table 1: Water Usage for Doris North (m<sup>3</sup>), May 2011

Parameters	Water Use	2AM-DOH0713
Water Source	Doris Lake/Windy Lake*	Compliance Values
Geographical Coordinates	On file	Part E: Item 1
Annual Cumulative	12,747.9	480,000 m <sup>3</sup> Annually
Monthly Cumulative	1913.9	-

\* Water from Windy Lake was used to construct the ice road at Windy Lake for constructing the fish habitat compensation shoals.

**b. Water Quality Monitoring: Schedule J and Special Requirements**

Monthly compliance samples in accordance with Schedule J requirements of the licence were taken from monitoring station ST-7 on May 1, 2011. Results of the March monitoring are provided in Table 2.

Table 2. Monthly Compliance Sample Results for SNP Monitoring Station ST-7 in mg/L, May 2011

<b>Parameter/SNP Sites</b>	<b>ST-7</b>	<b>Doris: 2AM-DOH0713</b>
ALS Lab Reference #	L1000341-1	Maximum Average Concentration (mg/L)
Sample Date/Time	May 1/11 @ 16:15	Part G: Item 3
BOD	<2.0	-
Fecal Coliforms	<1	-
Total Oil and Grease	<1	-
pH	7.52	-
TSS	<3.0	-
Ammonia-N	<0.050	-
Nitrate-N	<0.050	-
Nitrite-N	<0.050	-
Orthophosphate-P	<0.010	-
Total Phosphate (as Tot P)	0.026	-
Total Aluminum	<0.010	-
Total Arsenic	<0.00040	-
Total Cadmium	<0.000050	-
Total Copper	0.0026	-
Total Chromium	<0.0050	-
Total Iron	0.039	-
Total Mercury	<0.00010	-
Total Molybdenum	<0.0050	-
Total Nickel	<0.0020	-
Total Lead	0.00022	-
Total Selenium	<0.00040	-
Total Silver	<0.00010	-
Total Thallium	<0.00010	-
Total Zinc	0.0052	-
<b>Additional Parameters</b>		
ALS Lab Reference #	L991924-1	INAC request
Blue-green Algae	127,000 cells/mL	-

**3. Part G: Item 3(b) Conditions Applying to Waste Management and Waste Management Plans.**

Sampling point ST-8 is located within the Doris Camp Sewage Treatment Plant, which is located directly east of the main building complex. Effluent samples were collected from two separate taps (ST-8#1 and ST-8#2) located on the discharge lines from the tandem sewage treatment plants after the UV disinfection system. The data reported for May 1 at these stations was not in compliance values for all parameters; therefore, additional samples were collected on May 9 which were in compliance for all parameters except visible sheen of oil and grease. Analytical results are provided in Table 3.

Station ST-9 was not sampled during the month of May due to freezing conditions. HBML anticipates that ST-9 will not need to be relocated as a result of the relocation of the ST-8 discharge.

Table 3: Water Quality Data Summary for Monitoring Station ST-8 # 1 and ST-8 # 2, May 2011

Parameter/SNP Sites	ST-8 # 1	ST-8 # 2	ST-8 # 1	ST-8 # 2	Doris: 2AM-DOH0713
ALS Lab Reference #	L1000341-2, 3	L1000341-4	L1003037-1	L1003037-2	Maximum Concentration (mg/L)
Sample Date/Time	May 2/11 @ 07:30	May 2/11 @ 07:30	May 9/11 @ 07:55	May 9/11 @ 08:05	Part G: Item 3 (b)
BOD <sub>5</sub>	21.9	8.5	4.6	2.9	80 mg/L
TSS (mg/L)	<3.0	<3.0	<3.0	<3.0	100 mg/L
Fecal Coliform	26,000	4	<2	<1	10,000 CFU/100mL
pH (pH unit)	7.97	7.97	7.77	7.90	Between 6-9
Oil & Grease (Visible Sheen)	Yes	-	Yes	No	No Visible Sheen
Oil & Grease (mg/L)	<1.0	1.2	5	2	5

**4. Part G: Item 22 (e) Conditions Applying to Waste Management and Waste Management Plans.**

During the month of May 2011, water was not discharged from monitoring station ST-6a (Robert's Bay fuel storage facility east) or ST-5 (Doris bulk fuel storage facility). Samples were collected from both stations in preparation to discharge in June. The Robert's Bay fuel storage facility west (ST-6b) is currently under construction.

**Part G: Conditions applying to Waste Management and Waste Management Plans (Item 3b)**

**a. Part G: Item 3e (Treated Sewage Effluent Release in cubic meters)**

Table 4 shows treated effluent released from the Doris Membrane Plant at SNP ST-8 and the sludge removed and incinerated.

Table 4: Treated Sewage Effluent released in cubic meters (m<sup>3</sup>) through Doris Membrane Plant (ST-8), May 2011

Parameters	Effluent Released ST-8 (m <sup>3</sup> )	Sludge Volume (m <sup>3</sup> )
Annual Cumulative	3973	13.48
Monthly Cumulative	807	1.8

**5. Part J: Conditions Applying to General and Aquatics Effects Monitoring**

**a. Part J: Item 12d (Tonnages of Waste Rock Stored on the Temporary Waste Rock Pad)**

Tonnages of waste rock material removed from underground and placed on the Temporary Waste Rock Pad to date are detailed in Table 5.

Table 5: Volume (metric tons) of waste rock stored on the Temporary Waste Rock Pad, May 2011

Parameters	Waste Rock on Pad (tonnes)
Waste Stockpile Mass	51,117
Mass added this month	18,640
Mass Removed this Month	0
Total Tonnage	69,757

**b. Part J: Item 14 Thermal Monitoring Program**

Thermistor monitoring undertaken during the month of May is provided in Table 6.

Table 6: Temperature Readings from Thermistor Monitoring, May 2011

Drill Hole Number/ Station	Thermistor String Serial Number	Location	Date of Reading	CHANNEL (Degrees Celsius)							
				1	2	3	4	5	6	7	8
SRK-JT1-09	TS2667	Roberts Bay Jetty	May 5/11	-18.33	-14.76	-11.34	-6.09	-3.07	-2.96	-3.21	-7.48
SRK-JT2-09	TS2668	Roberts Bay Jetty	May 5/11	-29.67	-23.97	-16.75	-9.78	-4.91	-4.01	-4.03	-4.17

## 6. Environmental Incident Reporting

There were five (5) environmental incidents were reported during the month of May.

- May 10/11: Level 2 (Minor) – Approximately 20 litres of hydraulic oil was spilled at the GeoTech Laydown area as a result of a blown hose on a Zoom Boom. Spill was cleaned up and hose was replaced.
- May 17/11: Level 2 (Minor) – Approximately 15 litres of Hydraulic oil spilled on the ground in the vicinity of the Doris north sediment pond construction area, as a result of a blown hydraulic hose on a Cat 773 rock truck. Spill was cleaned up and hose was replaced.
- May 22/11: Level 3 (Major) – Discharge of approx. 291m<sup>3</sup> of run-off water from Pollution Control Pond without WQ sample results and notification to regulatory authorities. Detailed follow-up reports have been issued.
- May 27/11: Level 2 (Minor) – Approx. 3-5 litres of hydraulic oil leaked from a hose on the packer working on the berm of the Pollution Control Pond. Spill was cleaned up and hose was replaced.

Should there be any questions regarding the monthly report for May 2011, please contact Chris Hanks, Director, Environment and Social Responsibility, Hope Bay Mining Limited on phone number: 1-720-917-4489 or email: [Chris.Hanks@Newmont.com](mailto:Chris.Hanks@Newmont.com)

Yours sincerely,

for **Chris Hanks**

Director, Environment and Social Responsibility  
Hope Bay Mining Limited