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Phyllis Beaulieu, Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
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**Re: July 2011 – Monthly Monitoring Report for Water License 2AM-DOH0713 - Revised**

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Following is the monthly report for July 2011 as required under Doris Water Type A License No. 2AM-DOH0713. The license was issued on September 19, 2007 and will expire on September 30, 2013. The water license is specific to Mining and Milling and associated uses and water usage 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);
- Part H (Conditions Applying to Modifications); and
- Part J (Conditions Applying to General and Aquatic Effects Monitoring) Parts 12 and 14

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 specifically to mining and milling processes for which the facilities have not yet been constructed. As these 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. A summary of this monitoring 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, portable wash cars, all-weather road dust suppression, construction, and drilling. Total water usage is reported in Table 1.

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

Parameters	Water Use
Water Source	Doris Lake
Geographical Coordinates	On file
Annual Cumulative	21,710.12
Monthly Cumulative	6,054.10
2AM-DOH0713 Permitted Water Volume (Total Annual)	480,000 m <sup>3</sup>

#### 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 July 3, 2011. Analysis was not performed for three parameters requested due to a sample analysis error at the lab (in bold below). Results of the July monitoring are provided in Table 2.

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

Parameter/SNP Sites	ST-7
ALS Lab Reference #	L1026379
Sample Date/Time	July 3/11 @ 20:30
BOD	<2.0
Fecal Coliforms	<1
Total Oil and Grease	<1.0
pH	7.71
TSS	<3.0
Ammonia-N	<0.050
<b>Nitrate-N</b>	-
<b>Nitrite-N</b>	-
<b>Orthophosphate-P</b>	-
Total Phosphate (as Tot P)	<0.020
Total Aluminum	0.101
Total Arsenic	<0.00040
Total Cadmium	<0.000050
Total Copper	0.0026
Total Chromium	<0.0050
Total Iron	0.191
Total Mercury	<0.00010
Total Molybdenum	<0.0050
Total Nickel	<0.0020
Total Lead	0.00059
Total Selenium	<0.00040
Total Silver	<0.00010
Total Thallium	<0.00010
Total Zinc	0.0093
<b>Additional Parameters</b>	
ALS Lab Reference #	L1026387-1
Sample Date/Time	July 4/11 08:50
Blue-green Algae	66,200 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 after the UV disinfection system from the tandem sewage treatment plants. The data reported for July at these stations was in compliance values for all parameters. Analytical results are provided in Table 3. A notification to move the ST-8 discharge location was provided to the NWB on June

19, 2011 and the new discharge location is anticipated to be in use in September. Data from sampling at ST-8 is reported in Table 3.

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

Parameter/SNP Sites	ST-8 #1	ST-8 #2	Doris: 2AM-DOH0713 (Part G: Item 3 (b))	
ALS Lab Reference #	L1026379-2	L1027780-1	Maximum Average Concentration (mg/L)	Maximum Allowable Grab Sample Concentration (mg/L)
Sample Date/Time	July 4/11 08:15	July 4/11 08:15		
BOD <sub>5</sub>	<2.0	<2.0	80 mg/L	80 mg/L
TSS (mg/L)	<3.0	<3.0	100 mg/L	100 mg/L
Fecal Coliform	<1	0	10,000 CFU/100mL	10,000 CFU/100mL
pH (pH unit)	7.13	7.15	Between 6-9	9
Oil & Grease (Visible Sheen)	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Oil & Grease (mg/L)	1.2	2.5	5	10

Station ST-9 was sampled during the month of July as this station was no longer frozen and surface runoff was available for sampling (Table 4). HBML anticipates that ST-9 will not need to be relocated as a result of the relocation of the ST-8 tundra end-of-pipe discharge.

Table 4: Water Quality Data Summary for Monitoring Station ST-9, July 2011

Parameter/SNP Sites	ST-9*
ALS Lab Reference #	L904254-3
Sample Date/Time	July 3/10 @ 20:30
BOD <sub>5</sub>	<2.0
TSS (mg/L)	<3.0
Fecal Coliform	<1
pH (pH unit)	7.78
Oil & Grease (Visibility)	No visible sheen
Oil & Grease (mg/L)	<1.0

*\*No specified water quality criteria*

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

During the month of July, no water was discharged from monitoring station ST-5 (Doris Bulk Fuel Storage Facility) as this facility had been evacuated in June.

Water was discharged from monitoring station ST-6a (Roberts Bay Fuel Storage and Containment Facility) following receipt of effluent water quality sample results and a notification to the Inspector July 3, 2011. The effluent quality results were compliant for all parameters with the exception of TSS (Table 5). Special permission was granted by the INAC Inspector during the summer inspection tour to utilize this water for dust suppression. Between July 12 and 15, 604 m<sup>3</sup> of water was discharged from ST-6a on to the camp road system and airstrip by water truck.

Table 5: Effluent Quality Results from Sampling at ST-6a (Roberts Bay Fuel Storage and Containment Facility), July 2011

Parameter/SNP Sites	ST-6a	2AM-DOH0713 Part G: Item 22 (e)	
		Maximum Average Concentration (mg/L)	Maximum Concentration in any Grab Sample (mg/L)
ALS Lab Reference #	L1020372-1		
Sample Date/Time	Jun 19/11 @ 15:30 hrs		
pH	8.21	6.0-9.0	9.0
TSS	53	15	30
Total Oil & Grease	<1.0	5	10
Total Lead	0.00050	0.01	0.02
Benzene	<0.00050	0.37	-
Toluene	0.00075	0.002	-
Ethylbenzene	0.00070	0.090	-

No discharge occurred from the new Robert's Bay Fuel Storage Facility (ST-6b) as this facility was still under construction and there was no accumulation of meteoric precipitation or snow melt for sampling.

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

Table 6: Treated Sewage Effluent released in cubic meters (m<sup>3</sup>) through Doris Membrane Plant (ST-8), July 2011

Parameters	Effluent Released ST-8 (m <sup>3</sup> )	Sludge Volume (m <sup>3</sup> )
Annual Cumulative	5536	18.69
Monthly Cumulative	828	2.72

## 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 7. An error was made in the June report which is corrected in the totals of Table 7 below.

Table 7: Volume (metric tons) of waste rock stored on the Temporary Waste Rock Pad, July 2011

Parameters	Waste Rock on Pad (tonnes) July
Waste Stockpile Mass as of Month Prior	88,945
Mass Added this Month	20,723
Mass Removed this Month	0
Total Tonnage	109,668

### b. Part J: Item 12g Tail Lake Ice Thickness

Tail Lake did not have ice cover in July. Ice thickness measurements will resume when ice begins forming.

### c. Part J: Item 14 Thermal Monitoring Program

Thermistor monitoring undertaken during the month of July is provided in Table 8.

Table 8: Temperature Readings from Thermistor Monitoring, July 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	July 4/11	5.00	5.53	0.33	-2.49	-4.03	-3.91	-3.43	-4.11
SRK-JT2-09	TS2668	Roberts Bay Jetty	July 4/11	13.99	5.66	1.15	-3.07	-5.43	-5.11	-4.79	-4.70

## 6. Environmental Incident Reporting

There were six (6) environmental incidents reported during the month of July.

- July 3/11: Insignificant (Level 1) An RC drill was working at drill hole # 11DRC021 on the tundra near the Doris camp. A new fuel tank was brought to the location to service the equipment. Upon set-up, it was noticed that the tank was weeping fuel through a seam weld. The crew immediately put down absorbents and arranged to fly the tank back to the laydown, and have its contents drained. It appears that far less than 0.5 liters was spilt on the tundra.
- July 13-21/11: Moderate (Level 3). The new Sediment Control Pond was being filled with RO treated water originating in the temporary pollution control pond, but the Sediment Control Pond was found to be leaking. A spill report was filed with the Nunavut Spill Line on July 21/11, and updates provided on July 22/11 and August 9/11 (#11-294). The investigation is on-going.
- July 23/11: Insignificant (Level 1) Less than 1 litre of Jet A spilled from an un-level drum of fuel at the Doris helipad. A small amount of contaminated gravel was clean-up, contained and removed for disposal.
- July 23/11: Insignificant (Level 1) Approximately 15L of compressor fluid spilled from an unsecured pail in the back of a truck travelling on the road a Doris Camp just east of the Pollution Control Pond. Sorbent pads were used to clean-up the fluid and the contaminated road surface was shovelled up and removed.
- July 24/11: Insignificant (Level 1) A broken hydraulic line on a drill operating in Quarry 2 near Doris Camp leaked approximately 8L of hydraulic fluid on to the ground under the machine. Sorbent pads were used to clean-up the engine compartment and contaminated waste was put into a container for disposal.
- July 26/11: Minor (Level 2). A transmission bolt screen on the D8 dozer was broken off while moving rock in the overburden dump adjacent to Doris Camp and Quarry 2. The damage caused approximately 80L of transmission oil to leak on to the ground which impacted an area of approximately 25 m<sup>2</sup>. Sorbent pads were used to collect the fluid and then a machine was used to scrap up several inches of surface material which was contained for proper disposal.

Should there be any questions regarding the monthly report for July 2011, please contact Chris Hanks, VP Environmental Affairs for Hope Bay Mining Limited at phone number: 1-720-917-4489 or email: [Chris.Hanks@Newmont.com](mailto:Chris.Hanks@Newmont.com)

Yours sincerely,

for

**Chris Hanks**

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