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October 14, 2007

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

#### Re: September 2007—Monthly Monitoring Report for Water License 2BB-BOS0712

Following is the monthly report for September 2007 as required under Water license 2BB-BOS0712.

#### **Monitoring Program**

During the month of September 2007, 15 water and effluent samples were collected, as part of the monitoring program. No effluents were discharged from BOS-2, BOS-5, BOS-6, BOS-7 and BOS-8 during September.

As MHBL uses an external certified laboratory for carryout all the analyses and the sample sizes are quite small, MHBL uses the QAQC data produced by the laboratory to determine the accuracy and precision of the issued results. A summary of the monthly sampling for water license is provided in Table 1. Microbiological samples at most times were arriving late to the external laboratories because of the delays in shipment and logistical problems getting them to a laboratory within 24 hours period.

**Table 1: SNP Water sampling summary** 

Station Number	Sampling Date	Lab Reference #	b Reference # Comment and Lat./ Long. coordinates	
BOS-1	September 06 2007	L551047-3	Spyder Lake water Intake	
BOS-2	No discharge	-	Containment Pond Discharge	
BOS-3	September 06 2007	L551047-4	RBC effluent	
BOS-4	September 06 2007	L551047-5	RBC effluent meets Spyder Lake	
BOS-5	No discharge	-	Effluent from Bulk fuel farm prior to release	
BOS-6	No discharge	-	Effluent from Land Treatment Area	
BOS-7	No discharge	-	Landfill Leachate	
BOS-8	No discharge	-	Waste Rock and Ore Storage Pad	

#### Water usage

During the month of September 2007, Boston Camp was in operation till September 11 2007 and was closed for the season. During operational days, water abstraction pumps were located at Spyder Lake (BOS-1), east of camp on Spyder Lake for drills located at Boston.

There was only a one drill rig active at Boston for only one day for the month of September. The water consumption for the drill rig was calculated from water usage used to renew Boston Project Water License. A volume of 2.5 m³ per drill per day was assumed using the total number of drill rigs active at any given day in a month.

Table 2 provides the water volume usage as required under Part J, Item 1 of the water license.

#### **Results**

Water sampling and analysis results are provided in Table 3 for samples related to the SNP sampling requirements for the month of September 2007. Tables 4 and 5 provide detail of analyses on rainbow trout

fingerlings, *Oncorhynchus mykiss* and crustaceans, *Daphnia magna* subjected to water samples collected from BOS-4. The laboratory analytical results will be made available upon request.

Should there be any questions regarding the monthly report for September 2007, **please** contact Matthew Kawei, MHBL Exploration Senior Environmental Coordinator.

Email: <u>mkawei@miramarmining.com</u>

Table 2: Water usage in cubic meters (m³) for Boston Camp activities under 2BB-BOS0712

Details	BOS-1	Drills <sup>1</sup>	Total	Remarks
Water Source	Spyder Lake	Spyder Lake	Spyder Lake Camp & Drill Rigs	2BB-BOS0712: Compliance License
Monthly Cumulative	110	2.5	113	3,000 m <sup>3</sup> monthly
Volume Average (Daily)	10	2.5	10	100 m³ daily
Median	10	2.5	10	100 m³ daily
Maximum	10	2.5	13	100 m³ daily
Minimum	10	2.5	10	100 m³ daily

Table 3: Effluent Discharge from the WWTF, from Monitoring Stations BOS-1, BOS-2 & BOS-3

Parameter	BOS-1	BOS-3	BOS-4	Hope Bay: 2BB-BOS0712
ALS Lab Reference #	L551047-3	L551047-4	L551047-5	Compliance Values
Field Sample Details	BOS-1	BOS-3	BOS-4	Part D: Item 17
Sample Date/Time	September 06 07 @ 06:55	September 06 07 @ 06:40	September 06 07 @ 06:15	Part J: Item 3
Biochemical Oxygen Demand (BOD <sub>5</sub> )	2	101	<2	80 mg/L
Total Suspended Solids (mg/L)	4	78	<3	100 mg/L
Fecal Coliforms	-	-	-	10 x 10 <sup>4</sup> CFU/100 mL
pH (pH unit)	7.1	8.1	7.2	Between 6 and 9
Oil & Grease (Visibility)	No visible sheen	No visible sheen	No visible sheen	No visible Sheen

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<sup>&</sup>lt;sup>1</sup> Calculated (estimate of water consumed by drilling per day based on Boston License application (~ 2.5 m³/day)

Table 4: Results of Acute Toxicity Test for water sampling site BOS-4 under Boston water License # 2BB-BOS0712, Part J: Item 4.

# <u>Daphnia Magna Bioassay Test Report – Pass/Fail</u>

Sample Number: L551047-5

### **Summary Results**

PASS 48-hour Pass/Fail:

### **Sample Information**

Miramar Hope Bay Ltd. Sample Origin:

Sample Description: BOS-4

Sampling Date and Time: 06-Sept-07 06:15

> Sampling Method: Grab

> > Sampled By: Matt Kawei

Container(s) Description: 1 x 1 L Glass amber bottle

Sample Volume (L): 1 L

Date and Time Received: 10-Sept-07 12:30pm

Transit Irregularities: None Storage Temperature (°C): N/A

## **Test Information**

Test Organism: Daphnia magna

Test Description:

Acute, 48-hour, Static, Pass/Fail EPS1/RM/14, 2<sup>nd</sup> Ed. Dec. 2000, Environment Canada Reference Method:

Performed By: JA

Starting Date & Time: 10-Sept-07 16:30

Deviations from Reference Method: None Table 5: Results of Acute Toxicity Test for water sampling site BOS-4 under Boston water License # 2BB-BOS0712, Part J: Item 4.

# Rainbow Trout Bioassay Test Report - Pass/Fail

Sample Number: L551047-5

#### **Summary Results**

96-hour Pass/Fail: **PASS** 

#### **Sample Information**

Miramar Hope Bay Ltd. Sample Origin:

BOS-4 Sample Description:

Sampling Date and Time: 06-Sept-07 06:15

> Sampling Method: Grab

> > Sampled By: Matt Kawei

Container(s) Description: 1 x 20 L Blue barrel

> Sample Volume (L): 20 L

Date and Time Received: 10-Sept-07 12:30pm

Transit Irregularities: None Storage Temperature (°C): 14

#### **Test Information**

Test Organism: Oncorhynchus mykiss

Test Description:

Acute, 96-hour, Static, LC50 EPS1/RM/13, 2<sup>nd</sup> Ed. Dec. 2000, Environment Canada Reference Method:

Performed By:

11-Sept-07 12:00pm Starting Date & Time:

Deviations from Reference Method: None