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May 29, 2009

Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0B 1J0

Attention: Ms Dionne Filiatrault, Executive Director
Ms Phyllis Beaulieu, Manager of Licensing

Subject: Submission of 2008 Annual Report for Water License No. 2AM-DOH0713

Hope Bay Mining Limited is submitting to your office its 2008 Annual Report for Water License No. 2AM-DOH0713. The report covers activities and support services provided for the project at Doris North as stipulated in the license.

Enclosed with this letter are the following documents:

- Annual Report Form
- Supplemental Information Report

Please contact me if you have additional questions or require any further information relating to the contents of this report.

Sincerely,

Chris Hanks
Director, ESR
Hope Bay Mining Limited

NWB Annual Report

Year being reported: 2008



License No: 2AM-DOH0713

Issued Date: September 19, 2007

Expiry Date: September 30, 2013

Project Name: Doris North Project

Licensee: Hope Bay Mining Ltd.

Mailing Address: 300-889 Harbourside Dr.
North Vancouver, BC
V7P 3S1

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

In 2008 this licence was transferred from the previous owner Miramar Hope Bay Mining Ltd. to Hope Bay Mining Ltd.

General Background Information on the Project (*optional):

Doris North facilities are currently being used to support advanced exploration in the Hope Bay Greenstone Belt. The Doris North underground mine, mill and tailings facilities have not been constructed at this time.

Licence Requirements: the licensee must provide the following information in accordance with

Part B



Item 3



A. A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management. [See Schedule B]

Water Source(s): Doris Lake

Water Quantity:

480,000 cu.m/yr Quantity Allowable Domestic (cu.m)

3490.94 cu.m
(August to
December) Actual Quantity Used Domestic (cu.m)

Quantity Allowable Drilling (cu.m)

Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

☒ Solid Waste Disposal☒ Sewage☐ Drill Waste☒ Greywater☒ Hazardous☐ Other:

Additional Details:

Water for domestic use at Doris Camp is obtained from Doris Lake via an 8 inch diameter submerged pipe with a DFO compliant fish screen. This intake pipe is linked to a pumphouse located approximately 30 metres from shore.

Waste produced on site is treated according to Part G of the license.

-Food waste is burned in the incinerator as per Part G Item 5.

-Paper products, paperboard packing, and untreated wood waste is open burned as per Part G Item 8.

-HBML is authorized to dispose of all non-hazardous solid waste in a landfill on site as per Part G Item 10. At the request of the land owner, Kitikmeot Inuit Association, HBML has not constructed a landfill. Solid waste that cannot be burned is taken offsite for disposal at an approved site.

-Sewage and greywater produced onsite is processed in the sewage treatment plant as per Part G Item 3. Sludge produced by the treatment plant is burned in the incinerator.

-Hazardous materials such as waste oil, glycol, and contaminated soil are being shipped offsite for disposal at an approved site as per Part G Item 12.

B. A list of unauthorized discharges and a summary of follow-up actions taken. [See Schedule B Item

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Contractor personnel performing routine maintenance work on a vehicle did not have a catchment tray under the engine while doing an oil change and a small leak occurred.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

A hose on a DNX drill ruptured overnight at the Roberts Bay laydown spilling approximately 20L of hydraulic fluid on to the snow. All soiled snow was scraped up and stored in barrels.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

During an engine oil change on a Nuna Logistics vehicle, a drain pan overflowed spilling approximately 4L onto the ground at the Roberts Bay shop. Spill pads were deployed to absorb the spill and were incinerated.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Bags of ammonium nitrate at Roberts Bay laydown were noted to be leaking product onto the ground. The bags were moved and placed on a liner.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

At the Doris airstrip, a broken hydraulic line broke on a Nuna Logistics vehicle causing a spill of approximately 5L of hydraulic fluid onto the ground. The spill was cleaned up with absorbent pads.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Minor hydraulic fluid leak from broken hose at Quarry 2 (Nuna) of less than 1L. Spill pads/corn cobs were used to clean-up the leak and were then disposed of. A small amount of contaminated soil was removed. The drill leak was fixed.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

During the offloading of diesel from a barge to the 5M L tank, fuel was seen spraying in a fine mist from several tiny pinprick holes in the hose. The amount leaked is estimated at less than 1L. Offloading of fuel was immediately halted while repairs were made. No visible spill was evident.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

A Cubex drill at Roberts Bay laydown leaked an unknown quantity of hydraulic fluid onto the ground via a broken hose. Pads were deployed and a spill pan was placed under the vehicle. The drill was transferred to the mechanics shop for repairs with containment liner.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Engine oil leaked on the crane on the lower pad at Doris. A frozen valve caused the overflow of approximately 2.5L of oil onto the ground. NCV employees reacted promptly to contain and clean-up spilled product. Once the spill was cleaned up, a Flash Report was generated by Ryfan/NCV. Further action included ensuring that spill response equipment is readily available on-site. Contractors are reminded at weekly meeting to carry small caches of spill equipment while working and when there is the chance of a spill occurring.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

An NCV operated crane leaked approximately 2.5L of engine oil on the ground due to a frozen overflow pipe at the Doris Camp laydown. Staff deployed pads to catch drips and scraped up contaminated snow for disposal. A review of spill reporting procedures was done with contractors.

C. Revisions to the Spill Contingency Plan [See Part I, Item 4 and Schedule B Item 8]

SCP submitted and approved - no revision required or proposed ▼

Additional Details:

The Spill Contingency Plan submitted in April 2007 has not been modified or revised.

D. Revisions to the Abandonment and Restoration Plan [See Part L, Item 5]

AR plan submitted and approved - no revision required or proposed ▼

Additional Details:

The Abandonment and Restoration Plan submitted in April 2007 has not been modified or revised.

E. Progressive Reclamation Work Undertaken [See Schedule B, Item 15]

Additional Details (i.e., work completed and future works proposed)

In 2008, Quarry 1 (the quarry at the south end of Roberts Bay) was converted to a Tank Farm. Reclamation included the removal of all mobile and stationary equipment relating to quarrying followed by slope stabilization and contouring as required.

F. Results of the Monitoring Program including: [See Part J, Item 5 and Schedule B, Item 17]

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached ▼

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details attached



Additional Details:

ST-9 was never established.

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board



Additional Details: (date of request, analysis of results, data attached, etc)

N/A

G Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported [See Schedule B Item 19]

No additional sampling requested by an Inspector or the Board



Additional Details: (Attached or provided below)

N/A

H. Any responses or follow-up actions on inspection/compliance reports [See Schedule B Item 18]

No inspection and/or compliance report issued by INAC



Additional Details: (Dates of Report, Follow-up by the Licensee)

See Item 18 of attached supplement.

I. Any additional comments or information for the Board to consider

Please see attached supplement for additional information requirements set out in Licence No. 2AM-DOH0713.

Date Submitted:

May 31, 2009

Submitted/Prepared by:

Chris Hanks

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GPS Coordinates for water sources utilized

[illegible]

GPS Locations of areas of waste disposal

[illegible]



**2008 2AM-DOH0713 Type A Water License
Annual Report
Supplemental Document**

Doris North Project

Nunavut Water Board

Prepared by
Hope Bay Mining Ltd.
North Vancouver, BC

Prepared for
Nunavut Water Board
Gjoa Haven, NU

May 2009

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Appendix A: Letter from HBML to NWB dated March 28, 2008

Appendix B: Letter from HBML to NWB dated April 21, 2009

Appendix C: Letter from HBML to INAC dated August 11, 2008

1. Summary of monthly monitoring reporting [see Part J Item 21]

Hope Bay Mining Ltd. (HBML) submitted a proposal for the Aquatic Effects Monitoring Program Proposal, dated March 28, 2008, to the Nunavut Water Board (NWB) and Environment Canada (see Appendix A). Some preliminary conversations were held with Environment Canada, but there has not been a formal response from the NWB.

HBML does not believe that the majority of Part J of the Water Licence, which reports on the Aquatic Effects Monitoring Program, has come into effect at this time because a Production Decision has not been made for the Doris North Mine. The mine, mill, tailings facility and waste rock and ore storage areas have not been constructed. It is not possible to collect the majority of the monitoring data at this time. HBML is continuing to do baseline aquatic work to support the development of the new Project Description and to meet monitoring requirements associated with Doris Infrastructure that has been constructed.

That said, HBML has been submitting monthly reports on and collecting data from ST-7 (freshwater pumped from Doris Lake taken from a valve on the discharge end of the freshwater pump) and ST-8 (discharge from Sewage Treatment Plant bio-membrane). The following tables set out a summary of these data.

Table 1 provides the water volume usage at Doris and Matrix Camp as required under Part E, Item 1 of 2AM-DOH0713. The water extraction pump was located on the north shore of Doris Lake (ST-7). What follows is a written explanation of these data.

Doris and Matrix Camp were in operation from August –September 2008. During the month of October 2008, Matrix Camp was in operation all month and Doris Camp in operation from October 14, 2008 until the end of the month. During the month of November 2008, Matrix Camp was shut down for the season while the Doris Camp was in operation all month. During the month of December 2008, Doris Camp was in operation all month.

Note that in September, due to problems with flow meters at the camp, the figures below have been calculated using daily camp occupancy over the month and average per person daily water usage from historical data (0.14^3 /person/day). Note that in November, the sudden jump in the daily volume used is due to the fact that lake water pumped through the camp was used for building ice ramps for an ice road to do work on the tundra along the airstrip at Doris. However, water extraction and usage remained within the regulated volume.

Table 1 - Doris Camp Water Usage - SNP Station ST-7

Parameters	August	September	October	November	December
Water Source	Doris Lake	Doris Lake	Doris Lake	Doris Lake	Doris Lake
Annual Consumption	283			2512.6	

Monthly Cumulative	283	263.5	353.6	2159	431.84
Volume Average (Daily)	-	8.8	16.4	18.14	15.99
Median	-	-	-	8.07	19.55
Maximum	-	-	-	110.06	36.02
Minimum	-	-	-	1.0	0

Tables 2 and 3 set out the results of the water sampling monitoring program at ST-7 (Doris Lake water intake) and ST-8 (Doris STP Membrane discharge line). What follows is a written explanation of these data. It is noted that while the licence only specifies one sample per month will be taken, HBML is sampling more often in order to optimise the operation of the plant. This data is voluntarily provided to INAC and NWB. HBML uses an external certified laboratory to carry out all analyses for this report. Therefore, HBML uses the QA/QC data produced by the ALS laboratory to determine the accuracy and precision of results in this report.

During the month of August 2008, water samples were collected weekly at monitoring stations SNP ST-7 and SNP ST-8. HBML was in compliance for the whole month of August at SNP ST-7 for all parameters related to water intake. At ST-8, HBML was not in compliance for parameters: BOD5, TSS and faecal coliforms in effluent samples collected on August 4 and August 13. ST-8 samples collected on August 18 were compliant with all parameters listed under Part G, Item 3b. The presence of total coliforms and E. coli were noted in the same set of samples. ST-8 samples collected on August 25 were compliant with all parameters, and no total coliforms or E.coli were present. This improvement in performance corresponded to the gradual ramping up of the new Doris North SNP which was fully on line as of August 23. In response to this improved performance of the effluent, the camp occupancy at Matrix Camp was increased from a 30 man camp to a 68 man camp (note the number of persons had previously been voluntarily reduced by the company from 68 to do following non-compliance discharges for two July samples of treated grey water that were in excess of effluent water discharge criteria).

SNP-9 was not sampled as HBML was unable to locate a suitable location from where the sample should be taken, and there was a lack of agreement with INAC and NWB as to where the sample should be taken. SNP ST-9 is to measure the potential inflow Doris North Effluent from the tundra into Glen Lake, but is located over 1 kilometre from the end of pipe at SNP ST-9. A survey of the area revealed very limited drainage pathways to collect sufficient effluent samples to comply with requirements stipulated under Part G: Item 3. This issue will need to be resolved in order to monitor compliance with the licence.

During the month of September 2008, water samples were collected weekly at monitoring stations SNP ST-7 and SNP ST-8. Greywater discharge from the Doris Matrix Camp was routed through the new Doris Membrane plant effective in August. SNP ST-8 was in compliance for the entire month for all parameters with the exception

of BOD detected in the Sept. 15, 2008 sample. For ST-8 sampling Sept. 15, 2008 and Sept. 29, 2008, though requested Oil and Grease visibility was not reported by the laboratory, but an Oil and Grease numeric value was reported in mg/L. All these values were in compliance with the licence.

During the month of October 2008, water samples were collected three times at monitoring stations SNP ST-7 and SNP ST-8. SNP ST-8 was in compliance for the entire month for BOD and TSS. Fecal coliforms were not recorded for the Oct. 15 and Oct. 29 sampling, and on Oct 2 the plant was not in compliance with the licence requirements due to a high spike in coliform levels. During October, grey water effluent from the Matrix Camp was trucked to the newly commissioned Doris Membrane Plant for processing. As there were no solid wastes in the grey water from Matrix Camp, sludge in drums from Windy and Boston Camps were flown in to the Doris Plant to provide bacteria for use within the Membrane Plant. An incident during the month of October may have resulted in the accidental introduction of hydrocarbon residue mixed with black water effluent from Boston into the Doris Membrane Plant. This may have caused an upset in the biological balance within the system. A new contractor was awarded the contract to run and bring the Doris Membrane Plant into compliance. For October sampling, though requested Oil and Grease visibility was not reported by the laboratory, but an Oil and Grease numeric value was reported in mg/L. All these values were in compliance with the licence.

During the month of November 2008, faecal coliform counts observed in the effluent samples from ST-8 continued to be over the compliance criteria (likely attributable to the October 2008 incident described in the preceding paragraph).

During the month of December 2008, water samples were collected three times at monitoring station ST-7 and four times at monitoring station ST-8. Effluent samples collected and analysed for December 1, 8, and 16 were above the compliance value for faecal coliforms as reported in Table 2. All other parameters were within respective compliance values for December. The effluent sample collected on December 22 was in compliance for faecal coliforms. This was a result of installing an Ultra Violet light to increase the disinfection of coliforms in the treated effluent before release onto the tundra northwest of Doris Camp. It is anticipated that with this addition to the treatment system that Doris Camp effluent discharge will now be in compliance going forward.

Table 2 - Water Sampling Monitoring Program - ST-7

Parameter/SNP Sites	August	September	October	November	December
ALS Lab Reference #	L665875-14/ L664318-1	L679191- 4/L67790-7	L693940/691854	L7055813-17/ L703639-4	L714905/L713983
Sample Date/Time	Aug. 04/08 06:45 am	Sept. 03/08 8:15 am	Oct. 6/08	Nov. 03/08	Dec. 1/08
BOD₅	-	<2	2	<2.0	<2
TSS (mg/L)	-	4	5	4	3
Fecal Coliform	<1	<1	<1	<1.0	<1
Total Coliform	2	13			

Escherichia coli (E. coli)	<1	<1			
pH (pH unit)	-	7.8	7.3	7.4	7.5
Oil & Grease (Visibility)	-	NVS	<1	NVS	NVS <1
ALS Lab Reference #	L670982-1/L669355-4	L679441-4/L681523-27	L696153/697246	L708040-16/L707368-1	L717210-15/L716400-2
Sample Date/Time	-	Sept. 8/08 8:15 am	Oct. 15/08	Nov. 12/08	Dec. 8/08
BOD₅	-	5	<2	<2.0	<2
TSS (mg/L)	-	5	4	1.6	3
Fecal Coliform	-	1	<1	<1	<1
Total Coliform	-	12			
Escherichia coli (E. coli)	-	<1			
pH (pH unit)	-	7.8	7.6	6.86	7.4
Oil & Grease (Visibility)	-	<1	<1	NVS <1	NVS<2
ALS Lab Reference #	L671556-4/L672510-15	L685305-7/L682590-7	L702170/703318	L710628-12/L708993-1	L721358-1/L71923-1
Sample Date/Time	Aug. 18/08 10:00 am	Sept. 15/08 8:45 am	Oct. 29/08	Nov. 17/08	Dec. 16/08
BOD₅	-	<2	<2	<2.0	<2
TSS (mg/L)	-	5	<3	1.6	3
Fecal Coliform	<1	<1	<1	<1	<1
Total Coliform	<1	2			
Escherichia coli (E. coli)	<1	<1			
pH (pH unit)	-	7.6	7.2	6.86	7.4
Oil & Grease (Visibility)	-	<1	<1	NVS <1.0	NVS, <1
ALS Lab Reference #	L673680-1/L672801-1	L690926-15/L688977-7		L712221-17/L711421-1	L721538-7/L720195-2
Sample Date/Time	Aug. 21/08 10:15 am	Sept. 29/08 9:30 am		Nov. 24/08	Dec. 22/08
BOD₅	<2	<2		<2.0	<2
TSS (mg/L)	5	10		Nr ²	<3
Fecal Coliform	<1	<1		<1	<1
Total Coliform	4	<1			
Escherichia coli (E. coli)	<1	<1			
pH (pH unit)	7.7	7.6		Nr	7.4
Oil & Grease (Visibility)	<1 and NVS	<1 and NVS		2 and NVS	3 and NVS
ALS Lab Reference #	L675663-9				
Sample Date/Time	Aug. 25/08 8:20 am				
BOD₅	-				
TSS (mg/L)	-				

Fecal Coliform	<1				
Total Coliform	11				
Escherichia coli (E. coli)	<1				
pH (pH unit)	-				
Oil & Grease (Visibility)	-				

Table 3 - Water Sampling Monitoring Program - ST-8

Parameter/SNP Sites	August	September	October	November	December
ALS Lab Reference #	L665875-7/ L664318-2	L679191- 5/L67790-2	L693940/691854	L7055813- 16/ L703639- 3	L714905- 16/L713983-2
Sample Date/Time	Aug. 04/08 08:45 am	Sept. 03/08 8:30 am	Oct. 6/08	Nov. 03/08	Dec. 1/08
BOD₅	182	11	8	27	3
TSS (mg/L)	169	<3	<3	<3	<3
Fecal Coliform	>2419.6	146	5	16,000	198,000
Total Coliform	>2419.6	>2419.6			
Escherichia coli (E. coli)	49	3			
pH (pH unit)	7.3	7.8	7.3	7.6	8.1
Oil & Grease (Visibility)	NVS	NVS <1	<1	NVS <1	NVS <1
ALS Lab Reference #	L670982- 4/L669355-7	L679441- 5/L681523-28	L696153/ 697246	L708040-17/ L707368-2	L717210-16/ L716400-3
Sample Date/Time	Aug. 13/08 9:00 am	Sept. 8/08 8:45 am	Oct. 15/08	Nov. 12/08	Dec. 8/08
BOD₅	375	16	<2	94	4
TSS (mg/L)	346	4	4	<1	<3
Fecal Coliform	>2000 (tntc)	66		61,000	53,000
Total Coliform	>2419.6	>2419.6			
Escherichia coli (E. coli)	307.1	<1			
pH (pH unit)	7.5	7.7	7.8	7.55	6.9
Oil & Grease (Visibility)	NVS	NVS<1	1	NVS, <1	NVS, 3
ALS Lab Reference #	L671556- 7/L672620-1	L685305- 8/L682590-8	L699531/70023	L710628-13/ L708993-2	L721358-2/ L719231-2
Sample Date/Time	Aug. 18/08 10:00 am	Sept. 15/08 9:00 am	Oct. 22/08	Nov. 17/08	Dec. 16/08
BOD₅	3	120	8	16	21
TSS (mg/L)	11	8	<3	2.0	<3
Fecal Coliform	<1	105	99,000	213,000	132,000
Total Coliform	>2419.6	>2419.6			
Escherichia coli (E. coli)	20	>2419.6			
pH (pH unit)	7.7	7.3	8.0	7.6	6.5
Oil & Grease (Visibility)	NVS	3	<1	NVS <1.0	NVS, <1

ALS Lab Reference #	L66875-12/L664318-2	L690926-16/L688977-8	L702170/ 703318	L712221-18/L711421-2	L721538-9/L720195-2
Sample Date/Time	-	Sept. 29/08 10:00 am	Oct.29/08	Nov. 24/08	Dec. 22/08
BOD₅	-	18	24	54	13
TSS (mg/L)	-	<3	<3	1.6	<3
Fecal Coliform	-	>200		40,000	200
Total Coliform	-	>2419.6			
Escherichia coli (E. coli)	-	>2419.6			
pH (pH unit)	-	8.0	7.9	7.81	6.6
Oil & Grease (Visibility)	-	<1	<1	NVS, 2	NVS, <1
ALS Lab Reference #	L675663-28/L673856-7				
Sample Date/Time	Aug. 25/08 7:30 am				
BOD₅	4				
TSS (mg/L)	<3				
Fecal Coliform	<1				
Total Coliform	<1				
Escherichia coli (E. coli)	<1				
pH (pH unit)	7.7				
Oil & Grease (Visibility)	NVS				

A flow meter was installed at Doris STP membrane in August to measure treated effluent discharge. A log is kept and updated daily on any maintenance activities done to the plant. Information is provided on a daily basis to environmental personnel. The values tabulated in Table 4 for ST-8 capture the volumes released from the Matrix Camp. During September the plant was seeded on an ongoing basis with sludge from the Windy and Boston operations.

Table 4 - Treated Effluent release in cubic meters (m³) through Doris Membrane Plant (ST-8), December 2008

Parameters	August	September	October	November	December
Water Source	Doris Lake	Doris Lake	Doris Lake	Doris Lake	Doris Lake
Annual Cumulative	132 m ³	-	-	915 m ³	-
Monthly Cumulative	132 m ³	263.5 m ³	357 m ³	558 m ³	411 m ³
Volume Average (Daily)	-	8.8	12 m ³	19 m ³	13 m ³
Median	-	-	-	19 m ³	15 m ³
Maximum	-	-	-	33 m ³	25 m ³
Minimum	-	-	-	10 m ³	0 m ³

2. Summary of the Construction Monitoring Report [see Part D, Item 8 and outlined in Schedule D]

A Construction Monitoring Report is currently being prepared and will be submitted in 2009.

3. Summary of Geochemical Monitoring and Waste Rock Storage Assessment [see Schedule B Item 3]

The construction of facilities associated with waste rock storage has been deferred and as such HBML has not conducted a Geochemical Monitoring and Waste Rock Storage Assessment. Please refer to April 21, 2009 letter from HBML to NWB in Appendix B for details.

4. Summary of the results of the monthly water balance and water quality model assessments referred to in Part G, Item 31 and any re-calibrations that have been carried out [see Schedule B, Item 4]

The construction of a tailings impoundment area has been deferred and as such HBML does not currently have facilities to monitor for this requirement. Please refer to April 21, 2009 letter from HBML to NWB in Appendix B for details.

5. Summary of the Geotechnical Inspection Report referred to in Part J, Item 18 [see Schedule B, Item 5]

The construction of a tailings impoundment area has been deferred and as such HBML has not conducted a Geotechnical Inspection Report. Please refer to April 21, 2009 letter from HBML to NWB in Appendix B for details.

6. An update on the current capacity of the Tailings Impoundment Area [See Schedule B, Item 6]

The construction of a tailings impoundment area has been deferred and as such HBML cannot update the NWB on the capacity of this area. Please refer to April 21, 2009 letter from HBML to NWB in Appendix B for details.

7. A comparison of the flows (m³/day) at monitoring stations TL-1, TL-2, TL-3, and TL-4 [See Schedule B, Item 7]

The construction of a tailings impoundment area has been deferred and as such monitoring stations TL-1, TL-2, TL-3, and TL-4 do not yet exist. No monitoring is

possible at this time. Please refer to April 21, 2009 letter from HBML to NWB in Appendix B for details.

8. Annual review and any revisions submitted in the form of addendums to the Management Plans or Emergency Response and Contingency Plan [See Schedule B, Item 8]

Miramar Hope Bay Ltd. submitted the following plans in April 2007 with the 2007 revised water licence application:

- Environmental Protection Plan;
- Emergency Response and Contingency Plan;
- Air Quality Management Plan;
- Noise Abatement Plan;
- Waste Rock Management Plan;
- Hazardous Materials Management Plan;
- Explosives Management Plan;
- Landfill Management Plan;
- Landfarm Management Plan;
- Tailings Management Plan;
- Water Management Plan;
- Quality Assurance Quality Control Plan;
- Mine Closure and Reclamation Plan;
- Monitoring and Follow Up Plan.

None of these have been modified, or revised, but will be as changes in operations require revisions. In August 2008, HBML prepared and submitted a Sewage Management Plan to the NWB. A revision of that plan based on stakeholder comments will be submitted in 2009. In 2008, HBML prepared a plan for an Aquatic Effects Monitoring Program (AEMP) and submitted it to the NWB and Environment Canada. The AEMP was not implemented because the Doris North Project was deferred.

The Emergency Response and Contingency Plan contact names and numbers have changed since their April 2007 submission. Below are the updated contact names and numbers.

Hope Bay Mining Ltd. personnel responsible for the implementation of the Emergency Response and Contingency Plan			
Name	Position	Address	Contact
Brian Anderson	Director, Operation	300-889 Harbourside Dr. North Vancouver, BC V7P 3S1	604.904.5590/778.839.2574 Brian.Anderson@Newmont.com
Darren Lindsay	District Geology Manager		604.904.5563/778.988.3522 Darren.Lindsay@Newmont.com
Terri Maloof	Senior Manager, Permitting		604.904.5564/778.835.6586 Terri.Maloof@Newmont.com
Dave Smith	Regional Exploration Geologist		604.904.5574/778.928.4570 Dave.Smith@Newmont.com

Chris Hanks	Director, ESR	-	778.988.3522 Chris.Hanks@Newmont.com
Bill Patterson	Environmental Compliance Manager	Hope Bay Mining Ltd. Operations: E-mail contact is the preferred method for external communication due to difficulty in reaching parties when working out in the field.	604.759.4698/604.759.4710 Bill.Patterson@Newmont.com
Scott Stringer	General Manager		867.766.5311 Scott.Stringer@Newmont.com
Fred Penner/Glenn Winsor	Site Superintendent		604.759.4708/604.759.4691 Fred.Penner@Newmont.com/ Glenn.Winsor@Newmont.com
Jill Turk	Environmental Technician		604.759.4698/604.759.4710 Jill.Turk@Newmont.com

9. A list and description of all unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken [See Schedule B, Item 9]

Please refer to Item B of the Annual Report Form for list of all unauthorized discharges for 2008.

10. The results of continued aquatic effects baseline data collection, and the results of the Aquatic Effects Monitoring Program in accordance with Part K, Item 4 [See Schedule B, Item 10]

The results of the aquatics effects baseline data collection for 2008 are as follows.

Baseline sampling in 2008 included the following surveys and sampling programs: collection of water quality and limnology data in selected lakes and streams in the Boston, Doris, and Madrid project areas; conducting snow course surveys; monitoring of seasonal water surface elevations of select water bodies and discharge associated outflows; monitoring of meteorological data to support lake evaporation estimates; conducting fish species inventories in Aimaokatuk (Spyder) and Windy Lakes; collecting additional fish population characterization in Patch Lake; and sampling fish to determine use of spawning habitat by Arctic grayling in the lower reaches of the Koignuk River.

a) Hydrology

The 2008 hydrology program continued lake and stream discharging monitoring, and data collection. Snow course surveys took place May 16-21, 2008 and measured the snowpack available to contribute to spring runoff. Twenty-eight survey plots on seven terrain types were measured. The mean snow water equivalent depth was 93.1mm for the Doris area and 113.9mm for the Boston area. Hydrometric monitoring occurred from the end of June to mid-September. Lake levels indicated that spring melt began in early June and peak flows occurred around June 23, 2008. Rainfall values recorded at the Doris weather station were 156.5mm from June to September, above the average of 84.5mm. Both the

lake water levels and the stream discharge measurements show that 2008 was a wet year with above average values for water yield, rainfall, and snow water equivalent.

b) Water Quality and Physical Limnology

Water quality sampling was conducted on Boston area lakes, outflow streams, and Hope Bay (Aimaokatuk (Spyder), Fickle Duck, Stickleback, and Reference lakes, Kiognuk and Aimaokatuk rivers), Doris area lakes, their outflow streams and Roberts Bay (Doris, Little Roberts, Roberts, and Tail lakes), as well as Madrid area lakes and their outflow streams (Glenn, Windy, Pelvic, Ogama, Wolverine, Patch, and P.O. lakes). All freshwater waterbodies in the Project Area are characterized by soft water and the majority of the lakes are moderately sensitive to acidification. pH was typically near neutral to alkaline, but was observed to be slightly acidic under late winter ice-cover in several waterbodies. Thermal stratification was observed in some lakes in the Madrid area. Hope Bay was stratified in June and August. In July, dissolved oxygen (DO) concentrations in Ogama and Pelvic lakes fell below the Canadian Water Quality Guideline (CWQG) of 6.5 mg/L. Under ice-covered conditions in Tail and Roberts lakes, DO concentrations were below the CWQG of 9.5 mg/L. Naturally occurring metals are often elevated in the Hope Bay Project Areas. Fickle Duck Lake and all sampled streams in the Boston area, with the exception of Stickleback outflow, naturally exceeded one or more CWQGs for total metals. The same applies for Doris, Little Roberts, and Tail lakes, as well as their outflow streams. All the waterbodies in the Madrid area naturally exceeded one or more CWQGs. The CDWG were naturally exceeded for a number of parameters in one or more samples, with iron being the most common CDWG to be exceeded.

c) Fish Populations

Fish sampling in the Boston Area was conducted in the south arm of Aimaokatuk Lake and the Koignuk River where 464 fish, representing eight species, were encountered. The most abundant fish species captured was young-of-the-year corregonid species (39.4%), followed by ninespine stickleback (26.7%), lake whitefish (11.9%), and lake trout (8.6%). Also caught were slimy scuplin, least cisco, cisco, Arctic grayling, and burbot. A total of 778 fish, representing five species, captured in the Madrid Area. The most abundant fish captured was least cisco captured (42.3%) primarily in Wolverine Lake, followed by cisco (38.4%), lake trout (6.6%) and ninespine stickleback (5.3%). A statistical comparison of fish length versus weight showed some statistically significant differences between lakes. Lake trout from Aimaokatuk Lake get slightly skinnier as they grow longer (negative allometric growth) whereas lake trout from Patch and Windy Lake get slightly fatter as they grow longer (positive allometric growth). Lake whitefish growth patterns differed significantly between Patch and Aimaokatuk lakes, with the fish in Patch Lake growing slightly fatter in length compared to fish from Aimaokatuk. Lake. Cisco from Windy Lake get slightly fatter as they grow longer while fish from Aimaokatuk and Patch lakes get slightly skinnier as they grow longer. Lake trout, lake whitefish, and cisco growth patterns differed significantly between years in Patch Lake. In 2008, lake trout showed positive allometric growth while all other years show slightly negative allometric growth. In all years except 2006, positive allometric growth was

displayed in lake whitefish. Cisco growth was positively allometric in 1997 and 2007 and negatively allometric in 2006 and 2008.

d) Fish Habitat

Shoreline and riparian habitat was visually assessed for Ogama, Patch, P.O., P.O. Inflow, P.O. Connector, and Wolverine lakes in the Madrid Project Area. Bathymetry maps were created for Ogama, P.O., P.O. Connector, and Wolverine lakes. Bathymetry data collected in 2006 is included in this year's report to support the habitat discussion for Patch Lake. For the Boston Project Area, shoreline and riparian habitat was visually assessed for Fickle Duck, Reference, and Stickleback lakes. Bathymetry data collected in 1993 was used to support the habitat discussion for Stickleback Lake presented in the report.

11. Annual adjustments to reclamation security including any additional security that may be required [See Schedule B, Item 11]

No adjustments to reclamation security were required or made in 2008.

12. Annual Incineration stack testing results [See Schedule B, Item 12]

No stack tests were performed in 2008 as HBML does not currently have facilities to monitor for this requirement. The Doris Incinerator is being modified in 2009 by the manufacturer to allow the installation of the required monitoring equipment. Please refer to April 21, 2009 letter from HBML to NWB in Appendix B for details.

13. Annual Landfill Management Report [See Schedule B, Item 13]

HBML is authorized to dispose of all non-hazardous solid waste in a landfill on site as per Part G Item 10. At the request of the land owner, Kitikmeot Inuit Association, HBML has not constructed a landfill. Solid waste that cannot be burned is taken offsite for disposal. Because HBML has not constructed a landfill, no landfill management report has been prepared.

14. A summary of modifications and/or maintenance work carried out on the Water Supply and the Waste Disposal Facilities, including all associated structures, and an outline of any work anticipated for the next year [See Schedule B, Item 14]

No modifications of 2AM-DOH0713 were undertaken in 2008. Work anticipated for 2009 includes the modification of the potable water treatment system at Doris Camp to treat blue-green algae from the Doris Lake source water.

15. A summary of any closure and reclamation work undertaken and an outline of any work anticipated for the next year, including any changes to implementation and scheduling [See Schedule B, Item 15]

Please refer to Item E of the Annual Report Form for a summary of closure and reclamation work undertaken in 2008, as well as work planned for 2009.

16. A summary report describing public consultation and participation with local organizations and the residents of the nearby communities, including a schedule of upcoming community events/information sessions [See Schedule B, Item 16]

Community consultations including consultation with Inuit in the Kitikmeot are governed by the Community Relations Plan. This plan is primarily implemented by Alex Buchan, Manager of Community and External Relations, located in Cambridge Bay. Community Relations activities continue to revolve around Inuit employment and training opportunities in HBML programs and projects, consistent with feedback from a wide range of stakeholder groups.

During 2008, HBML maintained an office in Cambridge Bay, leased through Kitnuna, that provided for walk through public traffic and interactions in this community. The office is located at the Cambridge Bay airport which has both advantages and disadvantages as a storefront for HBML. Kitikmeot residents traveling through Cambridge Bay have access to this office during layovers between flights. However, Cambridge Bay residents may have greater difficulty accessing this location from the town-site if they do not have a vehicle to travel to the airport to visit us.

Regular communication is maintained between the Manager and KIA Community Liaison Staff, by email and telephone, primarily regarding employment and training opportunities for Inuit at our project site. HBML staffed a Human Resource Representative in Cambridge Bay in 2008 whose primary role was to support Kitikmeot hires in staffing and transportation. The incumbent was Natasha Neglak. In June 2008, Natasha took alternate employment with the KIA and the position has been vacant since then. HBML also staffed a Logistics Coordinator in Cambridge Bay who managed freight and flights to and from Cambridge Bay to HBML's mainland camps. Joey Evalik was the incumbent. In November of 2008, Joey took alternative employment with the KIA and the position has been vacant since then. During 2008, HBML is proud to have maintained 100% local Inuit staffing in the Kitikmeot.

a) Cambridge Bay Logistics Hub

HBML continued its practice in 2008 of utilizing the Hamlet of Cambridge Bay as a transportation hub for Kitikmeot based activities. In addition to the warehouse building at the Cambridge Bay airport, HBML maintained its lease of a Kitikmeot Corporation unit as a crew-house, primarily for contract aircrew. During the summer season, HBML also made wide use of Cambridge Bay accommodations (Arctic Island Lodge, Green Row

Apartments) for up to 34 staff due to lack of accommodation on site. This staff was ferried daily to Hope Bay for work.

From June to October, HBML stationed two Twin Otter aircraft in Cambridge Bay in order to transport staff and material to and from town. The positioning of these aircraft in Cambridge Bay facilitated charters: to assist the KIA in implementing the 2008 Elder Youth Camp, and to assist the Omilgeotok family visit their home area. This was of particular importance in 2008 as the Adlair Twin Otter that is typically available for charter was not.

HBML also used Cambridge Bay as the location for all site orientations. All new staff overnighted in Cambridge Bay to receive induction into camp procedures and practices. Site orientations were conducted at the Arctic Island Lodge boardroom by SNC-Lavalin contracted Health and Safety personnel. The volume of HBML traffic through the regional center for the Kitikmeot facilitated in several ways a greater understanding of our project and activities by Kitikmeot residents.

b) Email Distribution List

In 2008, HBML maintained the practice of regular email notifications of company updates amongst Key Stakeholders in the region including:

- KIA Community Liaison Officers and other staff
- Community Economic Development Officers
- Hamlet Senior Administrative Officers
- Kitikmeot Economic Development Commission
- Department of Education Field Operations
- Department of Economic Development and Transportation
- Indian and Northern Affairs Canada (Nunavut) staff
- Kitikmeot Corporation
- Nunavut Arctic College

At least once a month, an email is distributed amongst this group highlighting current corporate events, contact information, the status of hiring and training, which exploration camps are active, current photographs of exploration work, and copies and explanations of relevant company News Releases. Feedback from this practice has been positive and the distribution list continues to grow.

c) Alcohol and Drugs

HBML continues to be aware of and responsive to the need to restrict the abuse of alcohol and drugs on Inuit Owned Lands in compliance with KIA Policy. In 2008 HBML maintained bag check and consent to search procedures on company flights into the Hope Bay Belt, consistent with our zero tolerance policy on alcohol and drugs. On and since the completion of Doris Camp, security personnel have been positioned at site in order to ensure compliance. In October 2008, during the KIA Annual General Meeting, several

community delegates spoke out about this issue. A direct letter of response was provided regarding this to Charlie Evalik, President of KIA.

d) Community Relations Monthly Summary

In January, HBML circulated a Hope Bay fact sheet to all Kitikmeot stakeholders that described the details of the purchase of Miramar by Newmont Mining Corporation and the resulting creation of Hope Bay Mining Ltd. Included in the fact sheet was an announcement on the decision to postpone the construction of the Doris North Gold Project. Communications focused on providing new contact information for key Newmont Managers to work with Kitikmeot Stakeholders. A primer on Inuit culture was delivered by Alex Buchan to Newmont senior managers who, until then, were unfamiliar with Inuit and the Canadian North. This effort was made to ensure that all Newmont Managers who would be interacting with Kitikmeot Stakeholders had some knowledge of the social and cultural context in the region. Plans were completed to conduct a Diamond Drilling Training Program in partnership with the KIA, KEDC and Department of Education for Kitikmeot Inuit. At the end of the month, HBML met with representatives of KIA in Vancouver to introduce the new management team to the KIA and discuss matters of mutual interest. During this meeting, HBML committed to applying the “spirit and intent” of the Doris North IIBA to the planned Doris North Infrastructure (DNI) Program and associated gold exploration activities.

In February, an advertisement was run in News/North introducing Newmont Mining Corporation and its new involvement in Nunavut. A comprehensive Kitikmeot Community Consultation tour was conducted by HBML. Employees on the tour included Alex Buchan, Natasha Neglak, Brian Anderson (Operations Director), Sriram Sampathkumar (HR Director), Omar Jabara (Communications), and Mike Nerup (Geologist). The purpose of this tour was to introduce Newmont to Kitikmeot communities, announce the deferment of the Doris North Gold Project, report on 2007 activities and also announce plans for the DNI program. During the community tour, time was also taken to meet with Hamlet representatives, NIRB and NWB. HBML also sponsored and participated in the 2008 Kitikmeot Trade Show held in Cambridge Bay. Participants included Brian Anderson, Alex Buchan, and Mike Nerup. The Diamond Drill training program progressed with student selection and contracting Corona College in Newfoundland to deliver the training. Nunavut Arctic College (NAC) requested assistance in identifying instructors for a Cambridge Bay based camp cooking course and a Cambridge Bay and Kugluktuk based Introduction to Mining program. Several references were provided. HBML was approached by a Cambridge Bay based ad hoc group in support of sobriety and a number of company giveaways were donated to a “Celebration of Sobriety” evening event in the community. Several hundred HBML portfolio cases including stationary supplies were donated to every Kitikmeot High School. HBML was approached by representatives of the Department of Economic Development and Transportation to provide details on Hope Bay in order to develop a briefing note to their Minister.

In March, HBML hired a new Director of Environment and Social Responsibility: Chris Hanks. This was communicated to stakeholders. HBML participated in a Nunavut Planning Commission (NPC) study on the State of Knowledge study in support of the creation of a Nunavut General Monitoring Program. This effort ensured that the NPC was aware of the type of information that HBML collects in Nunavut. In support of the NAC Introduction to Mining programs underway in the Kitikmeot, a number of mining posters and training materials were provided to NAC. Public announcements were made in Cambridge Bay and Omingmaktok, in order to ensure public safety, regarding winter road operations between the Hope Bay Belt and Cambridge Bay and ongoing rock-blasting activity in the Hope Bay Belt. Alex Buchan and Brian Anderson delivered a 2007 Annual Report presentation to the KIA Board of Directors Meeting held in Kugluktuk. HBML conducted an informal meeting with Kitikmeot Corporation (KC) and Kitnuna, introducing these companies to HBML Management including Brian Anderson, Sriram Sampathkumar, Troy Olsen, Dave Kern, Pat Pelletier, Alex Buchan, Dave Gubler. During this meeting, KC and Kitnuna were able to obtain information on company contracting plans for 2008. Additionally, the HBML Management team, as above, met with NAC Kitikmeot Campus Managers in order to learn more about Adult Learning issues in the region. Finally, the HBML Management Team was delegated to a regular meeting of Council for the Municipality of Cambridge Bay where past, present and future company activities were described and discussed.

In April, HBML sponsored and participated in the 2008 Nunavut Mining Symposium in Iqaluit. Participating for HNML were Alex Buchan, Brian Anderson and Mike Meyer. During the symposium HBML delivered a presentation updating attendees on our activities and Alex Buchan sat on a Town hall discussion on Impacts and Benefits of mining. HBML also presented to the Ekaluktutiak Hunters and Trappers Organization on the 2008 Hope Bay Gold Project Environmental Baseline and Monitoring Studies DFO License Application to Fish for Scientific Purposes. Support for this research was obtained from the EHTO and this communicated to the Department of Fisheries and Oceans DFO. HBML participated in a summer student workshop held at Kilinik High School with participation from Service Canada and the Department of Education, Government of Nunavut. Additionally, HBML presented to the Cambridge Bay Introduction to Mining class on a range of topics including job opportunities and the mining process, and answered a number of questions the students had about the Hope Bay Belt. The diamond drill training program was officially launched with seven selected Inuit students traveling to Newfoundland in order to begin their classroom training. Finally, HBML participated in a follow-up meeting with Kitikmeot Corporation and Kitnuna company representatives to discuss subcontracting issues related to the Doris North Infrastructure Program (DNI).

In May, HBML began to formalize site orientation and induction procedures for new staff to Nunavut. As part of this process, a cross cultural awareness presentation was developed in order to foster cultural awareness and understanding between Inuit and non-Inuit workers. Once developed, this component of the orientation program was continually used throughout 2008 for all new staff. HBML provided in kind logistical support to the Cambridge Bay Cadet spring camp in May. Included in this event was

some survival and safety training provided by Alex Buchan. HBML accepted a further position on the Nunavut Caucus of the NWT/Nunavut Chamber of Mines. HBML continues to utilize this venue as an opportunity to participate in pan Industry initiatives that promote a greater understanding of mining and mineral exploration in the territory. HBML Cambridge Bay staff were involved in the Omingmak Frolics spring festival and participated in the corporate parade, at which time a fair number of company giveaways were distributed. Finally, HBML began discussions again with the Department of Education, KIA and KEDC on joint sponsorship of the annual Kimberlite Summer Trades Camp.

In June, HBML staff conducted the first of 2 site visits to Corona College in Newfoundland in support of the diamond drill training program. During the site visit, Alex Buchan was able to provide advice to students and work with Corona College to ensure that their studies remained successful. HBML also finalized plans for the Kimberlite Summer Camp including financing, travel, accommodation, course registrations and student travel.

In July, HBML sponsored an advertisement in Nunavut News North congratulating Nunavut organizations on the occasion of celebrating Nunavut Day. HBML successfully implemented the 2008 Kimberlite Summer Trades Camp with 18 High School students from across the region. The students included four from Gjoa Haven, five from Taloyoak, five from Cambridge Bay, two from Kugluktuk, and one student from Kugaaruk. HBML gratefully acknowledges the hospitality of the Kimberlite Career and Technical Center, and the volunteer chaperones that accompanied the students:

- Ron Klein – Shop Teacher, Gjoa Haven
- Harry Aknavigak, Income Support Coordinator, Cambridge Bay
- Anne Isnor, Student Counselor, Cambridge Bay
- Monica Kapakatoak, Career Development Officer, Kugluktuk

In addition to the Trades Camp, students also participated in a tour of Con Mine, currently undergoing reclamation in Yellowknife in order to see the various components of a gold mine. HBML committed to hiring all available graduates from the Cambridge Bay introduction to Mining program delivered by Nunavut Arctic College. HBML staff conducted the second site visit to Corona College in Newfoundland in support of the diamond drill training program. Accompanying Alex Buchan were Raymond Kayaksark, Vice President of KIA, Remi Krikort, KIA IIBA IC Appointee, John Stevenson, Management Consultant (KIA) and Jason Tologanak, Director of Beneficiary Services for KIA. During the site visit, this group was also able to meet with the management staff of Corona College to scope future Inuit training initiatives and discuss Inuit training provisions under the Doris North IIBA.

In August, HBML released a contracted Twin Otter to the KIA for use in ferrying Kitikmeot delegates onto the land south of Omingmaktok to participate in the 2008 KIA Elder Youth Camp. Concurrently, HBML donated helicopter time to the KIA in order to research the Huikitak River Conservation Area south and west of Boston Camp. At the end of the Camp, HBML hosted the 24 participants to a Doris Camp site tour and

answered a number of questions regarding our operations and activities for them. Also this month, HBML formally accepted an invitation from the Department of Economic Development and Transportation to become involved and sit on the newly formed Nunavut Mine Training Roundtable, a group seeking to better coordinate and facilitate mine training initiatives across the territory. HBML sponsored a Bear Safety seminar available to all Cambridge Bay residents through the use of one of its contractors. Six local residents attended the seminar and received training certificates from this event. HBML staff met with Rosemary Keenainak, Deputy Minister of the Department of Economic Development and Transportation during her visit to Cambridge Bay in order to provide information on company activities and answer her questions. Finally in August, the diamond drill training program classroom portion was completed successfully by all seven Inuit students who returned to their respective home communities in the Kitikmeot in order to await work placements at our site.

In September, HBML sponsored, with the Department of Economic Development and Transportation and NTI Lands Division, a Nunavut Mining Week Lunch BBQ in Cambridge Bay. Over 120 residents participated in the event. HBML also circulated to the Department of Health and Social Services an International Council on Metal Mining (ICMM) Good Practice Guide on HIV/Aids, TB and Malaria that HBML wished to utilize for Nunavut operations. HBML in Cambridge Bay publicly posted new phone contacts for the company in Cambridge Bay in response to a number of referrals from KIA Head Office staff. HBML hosted a NIRB Annual Inspection of Doris Camp and associated facilities in September. Both Alex Buchan and Brian Anderson met with Kitikmeot Corporation to discuss Operational contracts for KC affiliated companies for the 2009 fiscal year. HBML met with representatives of the Hamlet of Taloyoak and Nunavut Arctic College to discuss the concept of implementing a “Women in Trades” initiative for females from Taloyoak.

In October, HBML publicly announced that the Doris North Gold Project was being deferred. This was communicated by means of a Hope Bay Update Fact-sheet to all stakeholder groups. Included in the Fact-sheet was information on Inuit Contracting, progress on the Doris North Infrastructure Program, and the extent of drilling activities in the Hope Bay Belt in 2008. Alex Buchan audited the KIA Annual General Meeting held in Cambridge Bay in order to listen to any mining related issues that may have arisen in these discussions. HBML provided advanced notice to Kitikmeot Corporation of initial plans to organize a 2009 sealift of supplies and materials into the Hope Bay Belt. These plans were subsequently postponed primarily due to the Global Economic Crisis. HBML made plans for another Kitikmeot Community Consultation Tour in November, however these plans were revised to December due to staff conflicts. HBML undertook consultations with the KIA Community Beneficiary Committees of Cambridge Bay and Omingmaktok regarding plans to build a road from Doris Camp to Windy Camp. These consultations included a site visit with eight representatives of KIA CBCs to site. The plans for this road were subsequently postponed due to the discovery of actinolite in potential quarry rock. HBML promptly reported this discovery also to the KIA.

In November, HBML personnel, including Alex Buchan and Sriram Sampathkumar, attended the Canadian Aboriginal Minerals Association annual conference in Saskatoon in order to be updated on current Best Practices in aboriginal consultation in Canada. HBML made a presentation to the Nunavut Arctic College Board of Governors meeting held in Cambridge Bay regarding training and employment issues related to Hope Bay Mining. HBML participated in industry consultations by the Government of Canada Department of Natural Resources on the initiation of a \$100M/ 5Year “Geo-mapping for Energy and Minerals” (GEM) initiative. The Government of Canada sought and received advice from HBML on community consultations in Nunavut and ways of maximizing community involvement in this initiative. HBML audited the Nunavut Tunngavik Inc. Annual General Meeting held in Cambridge Bay in order to hear any mining related concerns that NTI delegates may have had.

In December, HBML conducted a second comprehensive Kitikmeot Community Consultation Tour. Alex Buchan, Chris Hanks, and Brian Anderson participated in these public meetings. Omingmaktoomuit were consulted via a separate lunch gathering held in Cambridge Bay. The public was provided information consistent with the Hope Bay Update Fact-sheet. During the Tour, meetings were also held with NIRB, NWB and interested Hamlets. HBML participated in the inaugural meeting of the Nunavut Mine Training Roundtable held in Rankin Inlet. Items discussed included the disposition of \$300K in funds to support mine training, whether Nunavut should adopt the NWT model of Mine Training, and sharing information amongst industry and government representatives on mine training projects. Finally, signs used by HBML on site for safety and other purposes were catalogued in preparation for translation into Inuktitut and Inuinnaqtun. Associated with this was initial drafting of a HBML Language Policy that would be both sensitive to the need to provide directions in Inuit languages, and also maintaining common understanding of camp procedures in English.

17. GPS locations of monitoring stations as confirmed with the Inspector Part J, Item 5 [See Schedule B, Item 17]

Please refer to main part of the annual report for the GPS locations of the monitoring stations.

18. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports files by an Inspector [See Schedule B, Item 18]

In July 2008, INAC performed a water license compliance inspection for the Hope Bay belt. One issue was raised with relation to the Doris North project. INAC requested that HBML discontinue the use of the fuel bladder at Roberts Bay, at the time being used as a transfer point for fuel moving from barges to the distribution system, because it was within 30 m of water. HBML performed the following corrective actions documented in a letter dated August 11, 2008 (see Appendix C):

- the existing bladder was drained of fuel and replaced with a 75,000 liter self-bermed tank placed within the existing berm to ensure secondary containment for tank plumbing;
- the bladder (more than 95% empty on August 11, 2008) was placed within the berm until the draining was completed;
- the bladder was retained for emergency or temporary fuel storage, away from water, for the Hope Bay belt;
- Under the new INAC *Draft Recommended Best Practices for the Storage and Handling of Petroleum and Allied Petroleum Products on Federal Crown Lands in Nunavut* bladders will be allowed under certain circumstances going forward. Discussions need to occur with KIA regarding how fuel bladders will be managed in the future; and
- Following the inspection, HBML received the tank registration from INAC for the 5 million liter fuel tank.

Appendix A

Letter from HBML to NWB dated March 28, 2008

MEMORANDUM

#300, 10525 – 170 Street
Edmonton, Alberta, Canada
T5P 4W2



Golder Associates Ltd.
Telephone No.: 780-483-3499
Fax No.: 780-483-1574

DATE: 28 March 2008 Project No. 08-1373-0004

TO: Mr. Michael Meyer, Hope Bay Mining Ltd.
Mr. Chris Hanks, Hope Bay Mining Ltd.

FROM: Golder Associates Ltd., Edmonton, AB

RE: Proposal for the Development of an Aquatic Effects Monitoring Plan

1 Introduction

Hope Bay Mining Ltd. (HBML) (formerly Miramar Hope Bay Ltd.) proposes to construct, operate and reclaim a small underground gold mine (average throughput of 720 tonnes per day) that will have a two year life. The project is located in the West Kitikmeot Region of Nunavut, 685 km northeast of Yellowknife and 125 km southwest of Cambridge Bay. The mine is on Inuit owned land, approximately 5 km south of the Arctic Ocean. The nearest communities are Umingmaktok, located 75 km to the southwest, and Bathurst Inlet, located 160 km to the southwest.

In part because of the expected short mine life, the proponent has been requested to prepare and undertake an Aquatic Effects Monitoring Plan (AEMP), in consultation with Environment Canada, for the Doris North Gold Project. Following is a proposal for the development of the detailed AEMP over the next several months. The proposal below identifies the types of sample areas, study components, a draft table of contents of the detailed AEMP, as well as the schedule for the AEMP development and implementation. This approach has been discussed with Anne Wilson of Environment Canada, who has indicated she is supportive of the development timeframe.

2 Purpose of the AEMP

Schedule A of the Doris North Gold Project Water Licence defines an Aquatic Effects Monitoring Plan (AEMP) as “a monitoring program designed to determine the short- and long-term effects in the aquatic environment resulting from the Project, to evaluate the accuracy of impact predictions, to assess

the effectiveness of planned impact mitigation measures and to identify additional impact mitigation measures to avert or reduce environmental effects.”

A proposal for the development of a revised AEMP study design is a condition of the recently approved Water Licence (Water Licence # 2AM-DOH0713) issued by the Nunavut Water Board. Preparing the detailed AEMP study design will involve the following tasks:

- **Consultation with Environment Canada** – liaising with regulators will be required to incorporate feedback from Environment Canada (this has been initiated).
- **Guidance Document Review** – various guidance documents pertaining to development of Environmental Effects Monitoring (EEM) programs pursuant to the Metal Mining Effluent Regulations (MMER) will be reviewed to incorporate current and appropriate methods in developing the AEMP for the Doris North Project. Incorporating steps outlined in the MMER guidance documents will enable the AEMP to be consistent with MMER requirements, which is also a condition of the Water License.
- **Analysis and Reporting** – a report outlining the various components and monitoring schedule of the AEMP will be prepared taking into consideration comments from regulators and MMER requirements.

It is important to note that the AEMP is to support the development Doris North Project. To date, all needed approvals for this project are not completed. Specifically lacking is the completion of the placement of Tail Lake on Schedule 2 of the MMER by Environment Canada. Golder Associates have been notified by Hope Bay Mining Ltd., that until this amendment is completed, the work under the AEMP will not be undertaken due to regulatory uncertainty.

3 AEMP Study Design Outline

The AEMP study design will closely follow the EEM technical guidance document to ensure that the MMER requirements are met while avoiding duplication of monitoring effort. Water quality sampling will also be conducted to meet the requirements of Part J of the Water Licence. This proposal outlines the proposed AEMP study design format.

Study Area and Sampling Locations

The study design proposed for the AEMP and the future EEM study is expected to be a Multiple Control/Impact design. This design consists of two or more

reference areas and a series of downstream exposure areas representing near-field and far-field areas. This design was selected as the most appropriate because there is no opportunity to select upstream reference streams or lakes that are similar to the streams and lakes that will be exposed to the effluent discharged from Tail Lake. Two reference streams and two reference lakes will be selected to characterize natural variation in biological communities.

Fish Survey

The AEMP fish survey is required to determine if there have been changes in fish growth, reproduction, condition, and survival. The AEMP will be designed to assess baseline conditions in the proposed reference areas and future exposure areas using the EEM recommended methods, health parameters and statistical analyses to supplement the existing baseline prior to development.

Benthic Invertebrate Community Survey

The AEMP and EEM benthic invertebrate community survey is required to determine if future mine effluent is having an effect on fish habitat. The AEMP will be designed to assess benthic invertebrate baseline conditions in the proposed reference areas and future exposure areas using the EEM recommended methods, community parameters and statistical analyses.

Water Quality Survey

The purpose of monitoring water quality in an AEMP program is to evaluate mine-related changes in water chemistry in the exposure area. Water quality monitoring is also required in the Effluent and Water Quality Monitoring Studies component of the MMER. Water quality samples will be collected at sampling locations to fulfil the requirements of EEM and Part J of the Water Licence. As requested by Environment Canada, chlorophyll *a* samples will be collected in reference and exposure areas to assess potential nutrification effects on primary production.

Sediment Chemistry Survey

The purpose of monitoring sediment chemistry in an AEMP program is to evaluate mine-related changes in sediment chemistry in the exposure area. A sediment quality survey will be conducted in conjunction with the benthic invertebrate community survey. The sediment quality component will be to collect sediment samples in each study area and lake to document background concentrations of sediment quality parameters that will be monitored during future AEMP and EEM studies.

4 Timing for completion of the Detailed AEMP

Consultation with Environment Canada (Anne Wilson, Yellowknife) with regard to the requirements for the AEMP was initiated in early February 2008, and has been ongoing. The schedule for completion of the detailed AEMP design for approval by the Nunavut Water Board is as follows:

- Preparation of a draft design, based on input from Environment Canada received to date, and continued consultation;
- Submission of a draft AEMP for review by Environment Canada (and Nunavut Water Board, if applicable) by 30 April 2008.
- Finalization of the detailed AEMP design, incorporating Environment Canada and Water Board comments by 30 May 2008.
- Implementation of AEMP baseline data collection will commence only after Tail Lake is placed on Schedule 2 of the MMER.

As noted earlier, the AEMP program will not proceed until the completion of the amendment to Schedule 2 of the MMER. Therefore, the dates listed above may be modified if delays in the completion of the amendment occur.

5 Closure

We trust the above meets your present requirements. If you have any questions or require additional details, please contact the undersigned.

GOLDER ASSOCIATES LTD.

Prepared by:



Angela Holzapfel, M.Sc., P.Biol.
Aquatic Biologist

Reviewed by:



Gary R. Ash, M.Sc., P.Biol.
Senior Aquatic Scientist, Principal

Appendix B

Letter from HBML to NWB dated April 21, 2009



Hope Bay Mining Ltd.
Suite 300
889 Harbourside Drive
North Vancouver, BC
V7P 3S1
Phone 604 985 - 2572
Facsimile 604 980 - 0731
www.newmont.com

April 21, 2009

Nunavut Water Board
PO Box 119
Gjoa Haven, NU
X0B 1J0

Attention: Ms. Dionne Filiatrault, Executive Director

Dear Sirs and Mesdames:

Current Application of Doris North Type A Licence 2AM-DOH0713 (the "Water Licence")

Thank you for meeting with us in Ottawa on Friday, April 3, 2009, along with Stephanie Autut and Bill Tilleman, to discuss issues relating to the current application of the NIRB Project Certificate and the Water Licence in the context of the current facilities and activities at Hope Bay.

Following on your request, we are enclosing three documents for your consideration:

- a status report on facilities and activities permitted under the Water Licence;
- a summary of certain provisions of the Water License that are not applicable to HBML's current operations under the Type A Water License (given the deferral of the Doris North mine) and a marked copy of the Water License further delineating these requirements; and
- a summary of the status of commitments under the NIRB Project Certificate relating to issues of water use, water quality and waste control.

These summaries provide the Board with the status of the current facilities and activities related to the Doris North Project, and a summary of those provisions of the Project Certificate and the Water Licence that are applicable or non-applicable in the context of the deferral of the Doris North Project pending further advanced exploration with the intention of developing a belt-wide project.

It is important for us to be in compliance with those provisions of the Water Licence that are applicable to our current facilities and activities, and it is equally important for us to have a clear understanding with the NWB with respect to those provisions that are not currently applicable to our current circumstances. The purpose of this letter, the attached status report and summaries is to provide NWB with information regarding our current circumstances and more importantly, to ensure that we have a clear understanding of current licence requirements.

Please let us know as soon as possible if you disagree with our attached summaries, particularly with respect our conclusions as to those provisions of the Water Licence that are not currently applicable.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Chris Hanks", with a stylized flourish at the end.

Chris Hanks
Director, Environmental and Social Responsibility
Hope Bay Mining Ltd.

cc: Phyllis Beaulieu, NWB
Stephanie Autut, NIRB
Bill Tilleman

**STATUS REPORT ON FACILITIES AND ACTIVITIES
UNDER WATER LICENCE 2AM-DOH0713 (DORIS NORTH)
PREPARED FOR THE NUNAVUT WATER BOARD**

As the Water Board (along with other regulators and stakeholders) was advised by our letter of September 11, 2008, the Doris North project has been deferred pending further advanced exploration in the Hope Bay belt with the intention of developing options for a belt-wide project.

The Doris North Type A Water Licence permits mining, milling and associated activities for the Miramar Doris North Project. At this time Hope Bay Mining Ltd (HBML) activities on the Hope Bay belt involve advanced exploration to firm up the business case for a new HBML project, environmental work in support of the project and other related activities. HBML's program is supported by approximately 100+ workers on site at Doris Camp. HBML has committed to an advanced exploration program through June of 2009, but is currently assessing plans for drilling as late as the end of the year. The current drilling program is being conducted using standard technology with diamond drills and reverse circulating drills. HBML's advanced exploration is conducted under the terms of the Hope Bay and Boston Type B Water Licences. The Doris facilities are being used for accommodations for staff working on the exploration.

These activities were contemplated in our original Water License Applications and are permissible under the Boston, Hope Bay and Doris North Water Licenses.

Chapter 4 [Doris North Project Description] of the Doris North Project's Technical Report to FEIS submitted to NIRB June 2005 included various phases for the Project including: Planning for Mine Development, Exploration, Construction and Project Operations. Under Section 4.6 of the Project Description the Exploration phase included this description:

MHBL exploration activity is being staged from its exploration camp on the east shore of Windy Lake, approximately 10 km west of the Doris North Project site. The Windy Camp will continue to act as the base of exploration on the Hope Bay belt until the proposed permanent accommodation camp at the Doris North Project site is complete. At that time (approximately the third quarter of 2007), all exploration personnel and activity will be transferred to the Doris North Project site. In the following winter (winter of 2007-2008) the Windy exploration camp will be fully decommissioned and the site reclaimed. All remaining material and equipment will be moved across the frozen tundra to the Doris North Project site.

Section 5.3 of the Doris North Project's Technical Report to FEIS emphasizes the objective to use Doris Camp as the central camp for activity on the belt, including work focused on development:

Under this staged development approach, support infrastructure and waste management facilities would be centered at one site (Doris North), reducing the overall footprint of the infrastructure required for future development on the Hope Bay belt.

This transition from Windy to Doris Camps is largely completed. HBML is using the residential facilities at Doris Camp to support its advanced exploration operations as assessed in the Project Description.

Under the Project's April 2007 application for the Type A Water Licence, the FEIS and the Project Description were provided to the NWB and referenced in the Water Licence application Support Document. See for example Section 1.1 and 1.2 (introduction sections to Support Document) and Section 2.0 the Project Description, which further confirms that exploration activities would be conducted throughout each phase of the Project.

The following is a report on the status of the facilities and activities permitted under the Type A Water Licence. For ease of reference, the following is a list of facilities and activities referred to under Part A, paragraph 1 (scope) of the Water Licence, with an indication of the their status.

Facilities and Activities Part A, paragraph 1	Status
Use of water from Doris Lake	No water from Doris Lake has been used for mining and milling processes. Water from Doris Lake has been used for domestic purposes in the Doris Camp constructed in 2008. As we advised in our letter of February 24, 2009, we have experienced some algae problems with the water from Doris Lake, and are temporarily obtaining potable water from Windy Lake for the Doris Camp. We have submitted an application to amend the Type B Water Licence authorizing withdrawals from Windy Lake (Licence No. 2BE-HOP0712) to confirm the temporary use of water from Windy Lake in the Doris Camp.
Quarrying of materials from specified locations	We have quarried materials from Quarry 1, Quarry 2 and Quarry 4 for the purposes of building roads, an airstrip, camp pad and lay down areas. Each quarry operation is authorized under a Quarry Permit with KIA.
Development and operation of site facilities	<p>The following site facilities have been built and are operating: Doris Camp, 900 meter airstrip, Roberts Bay Jetty and Doris Road and a 500 liter Tank Farm. These activities and facilities are authorized under the Water Licence.</p> <p>The Doris Camp was constructed in 2008 and is operational. The Camp currently provides accommodations for advanced exploration activities, environmental work and other related activities. The exploration activities are covered under the Hope Bay and Boston Type B Water Licences.</p>
Construction of access and site road, air strip, water crossings and lay down areas	<p>In 2008, we constructed a 900 meter airstrip along the road between Doris Camp and Roberts Bay.</p> <p>Under the Doris License we do not have water crossings.</p> <p>We have three lay down areas: one at Roberts Bay for the shop and maintenance areas; one along the road between Roberts Bay and Doris Camp, north of Quarry 2; one south of</p>

	Doris Camp on the lower pad.
Construction of a temporary waste rock storage pad	We do not have a temporary waste rock storage pad because we do not have any waste rock from mining operations.
Construction and Operation of a STP	In 2008, we built the Sewage Treatment Plant (STP) that was described in the Environmental Assessment and authorized in the Type A Water Licence.
Construction and Operation of a Landfill and Landfarm	<p>KIA has requested that we not build a Landfill. HBML has therefore not established a Landfill at this time.</p> <p>HBML has not constructed a Landfarm for treatment of hydrocarbon contaminated soil as it is not necessary at this time.</p> <p>Currently, HBML is shipping waste south for final treatment in a qualified facility or incinerating waste on site as permitted under the Water Licence.</p> <p>Our current operations, concentrated on advanced exploration, do not produce as much waste as was contemplated for the assessed mine operations.</p>
Construction and Operation of a sedimentation pond and pollution control pond	HBML has not constructed either facility as they are not needed given the very limited infrastructure that has been constructed to date.
Management and disposal of wastes associated with the STP, sedimentation and pollution control ponds, Land fill and Landfarm, and other wastes as described in the application	<p>Sewage sludge is currently being pressed to de-hydrate it and then, incinerated as per the criteria of the Type A Water Licence.</p> <p>Currently, we are shipping waste south for final treatment in a qualified facility or incinerating waste on site as permitted under the Water Licence.</p>
Handling and storage of petroleum products and hazardous materials	Petroleum products and hazardous materials are being handled in accordance with HBML's Emergency Response and Contingency Plan, which is on file with NWB.
Construction of dams, spillway, and shoreline erosion control needed for Tail Lake	HBML has not constructed the Tailings Facility and is not using Tail Lake as a Tailings Impoundment Area. Currently, this permitted use is not applicable to HBML's operations.
Extraction of portal development rock. Waste rock and ore from underground via decline	HBML has not constructed underground infrastructure. Currently, this permitted use is not applicable to HBML's operations.
A mining rate of 720 tonnes per	HBML is not conducting mining operations. Currently, this

day of ore	permitted use is not applicable to HBML's operations.
A mill with a design milling throughput of 800 tonnes per day ore	HBML is not conducting mining operations. Currently, this permitted use is not applicable to HBML's operations.
Deposition of tailings into the Tailings Impoundment Area	HBML is not conducting mining operations. Currently, this permitted use is not applicable to HBML's operations.
Disposal of waste rock, including potentially acid generating rock and cyanide leach residue within underground workings	HBML is not conducting mining operations and does not have waste rock or cyanide leach residue to dispose. Currently, this permitted use is not applicable to HBML's operations.
Controlled discharge of effluent from the Tailings Impoundment Area to Doris Creek	HBML is not conducting mining operations and has not established the Tailings Impoundment Area. Currently, this permitted use is not applicable to HBML's operations.
The progressive reclamation of on-site facilities and infrastructure	HBML has not conducted mining operations and has not started progressive reclamation of infrastructure. Currently, this permit requirement is not applicable to HBML's operations. An up-to-date Closure Plan is maintained with the NWB.

SUMMARY OF THE CURRENT APPLICATION OF PROVISIONS OF THE TYPE A WATER LICENCE

By letter of January 13, 2009, we identified a number of clauses in the Water Licence that are not applicable to HBML's current operations. We have reattached our markings of these sections of the Water Licence and have provided a brief explanation of these changes below. In general, the clauses applying to mining and milling operations and tailing and waste management are not applicable as those facilities and activities are not currently being conducted. As well, the clauses applying to the land fill (Part G, Item 9) and the land farm (Part G, Item 14) are not applicable as those facilities have not been established.

Identification and description of Licence Conditions which are not currently applicable to HBML's operations.

Water Licence Provisions	Status
Part C, Item 2	This provision will be triggered by the start of ore processing – which has not yet occurred.
Part D, Item 24	No underground mining has commenced.
Part D, Item 26	No structures designed to contain, withhold, divert or to retain waters or wastes have been constructed.
Part D, Item 28	None of these structures have been constructed. The requirement is not applicable to our current operations.
Part E, Item 1	No water is being drawn from Doris Lake at this time for mining and milling uses. Doris Lake water is being used for domestic camp purposes (see discussion of algae problem) and for dust suppression and other incidental uses.
Part E, Item 2	There is no Tailings Impoundment Area at this time.
Part F, Item 1	<p>A draft Water Management Plan was submitted with MHL's application for the Water Licence. As mining and milling has not commenced and there is no Tailings Impoundment Area, HBML has not updated this plan. The provisions of the Water Management Plan relating to these facilities and operations are not yet applicable.</p> <p>Section F (1)(a) and (1)(b) are not applicable to our current operations.</p> <p>Section F (1)(c) is not applicable to a Pollution Control Pond because one has not been established.</p>
Part G, Item 7	An Incineration Management Plan is being prepared at the moment as part of the material management plan. The dual chamber incinerator at Doris North is designed to meet the Canada-wide standards for dioxins,

	<p>furans and mercury.</p> <p>The provision of this requirement that calls for compliance with Section G.9 is not applicable because HBML does not have a Landfill as KIA has not authorized HBML to establish a Landfill.</p>
Part G, Item 9	<p>There is no Landfill in operation at the current time. The KIA has not authorized HBML to construct a Landfill.</p> <p>Currently, we are shipping waste south for final treatment in a qualified facility or incinerating waste on site as permitted under the Water Licence.</p> <p>Our current operations, concentrated on advanced exploration, do not produce as much waste as was contemplated for the assessed mine operations.</p>
Part G, Item 11	<p>A Hazardous Materials Management Plan was submitted with MHBL's application for the Water Licence. Additionally, HBML has an Emergency Response and Spill Plan in place. These Plans are currently being updated to reflect current site operations. Hydrocarbons and potassium nitrate are the two most common substances that require management. Hazardous Materials such as sodium cyanide have not been brought to site because the mill has not yet been constructed. HBML has a waste generation number and all shipments are covered by TDG.</p>
Part G, Item 14	<p>There is not a Landfarm and therefore this condition is not applicable to our current operations. Currently, there are only insignificant volumes of contaminated soils to farm. Any small amounts of hydrocarbon contaminated soils are being barrelled and shipped south for treatment.</p>
Part G, Item 15-18	<p>HBML is not mining and as such, does not have any waste rock. These requirements are not applicable to our current operations.</p>
Part G, Item 20	<p>There is no Pollution Control Pond at this time. This requirement is not applicable to our current operations.</p>
Part G, Items 22-31 inclusive	<p>There is no Tailings Impoundment Area at this time. These requirements are not applicable to our current operations.</p>
Part J, Items 2, 4, 8, 11, 12(b), (c), (d), (e), (g), 13, 15, 16, 17, 18(a), (c), (d), (g), (h), (k), (m), (n), (o), 20(a), (b), (c), (d), 21(b), (d), (e)	<p>Each of these items is contingent upon the establishment and operation of the Tailings Impoundment Area, the Landfill, Landfarm and Pollution Control Pond, and other facilities which have not yet been constructed or put in operation. These requirements are not applicable to our current operations.</p>
Part K, Item 5	<p>A Monitoring and Follow-Up Plan was submitted with MHBL's application for the Water Licence. Most of the components of the</p>

	Monitoring and Follow-Up Plan relate specifically to mining and milling effects and as such these requirements are not applicable to our current operations. The other components such as air quality, noise and wildlife are addressed in other plans applicable to current operations.
Part K, Item 6	Neither the Temporary Waste Pad nor the Pollution Control Pond has been established or put into operation. This requirement is not applicable to our current operations.
Part L	There is an Interim Reclamation and Closure Plan filed with NWB. Generally, since HBML is not currently undertaking mining operations, these provisions are not applicable; however, the requirements will be followed as appropriate for existing facilities, activities and infrastructure.
Schedule B, Items 3, 4, 5, 6, 7 and 10	The Tailings Impoundment Area and other facilities have not yet been constructed or put into operation and therefore, HBML is not able to provide or describe the listed items for its Annual Report.
Schedule D, Item 1(l)	This item is not applicable to our current operations as it only applies to the construction of the north and south dams.
Schedule J, Table 2	This item is not applicable to our current operations. Certain requirement for monitoring that relate to releases associated with the proposed mining and milling operations, such as monitoring discharges from the TIA, underground mine water, discharge from the Pollution Control Pond, are not applicable to our current operations.



WATER LICENCE NO: 2AM-DOH0713



NUNAVUT WATER BOARD WATER LICENCE

LICENCE NO: 2AM-DOH0713

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NUNAVUT WATER BOARD WATER LICENCE

Pursuant to the Nunavut Waters and Nunavut Surface Rights Tribunal Act and the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

MIRAMAR HOPE BAY LTD.

(Licensee)

300 - 889 HARBOURSIDE DRIVE, NORTH VANCOUVER, B.C. V7P 3S1

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water or dispose of waste for a period subject to restrictions and conditions contained within this Licence:

Licence Number/Type: 2AM-DOH0713 Type "A"

Water Management Area: 07

Location: KITIKMEOT REGION, NUNAVUT

Purpose: MINING AND MILLING AND ASSOCIATED USES

Description: MINING AND PROCESSING

Quantity of Water not to be Exceeded: 480,000 CUBIC METRES ANNUALLY

Date Licence Issuance: September 19, 2007

Expiry of Licence: September 30, 2013

This Licence issued and recorded at Baker Lake, Nunavut includes and is subject to the annexed conditions.

Thomas Kabloona,
Nunavut Water Board
A/Chair

APPROVED
BY:

Minister of Indian and
Northern Affairs
Canada

DATE LICENCE APPROVED:

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

SCOPE

1. This Licence authorizes Miramar Hope Bay Limited (“MHBL” and the “Licensee”) to use water and dispose of waste associated with the Mining and Milling undertakings at the Doris North Project as outlined in the Water Licence Application, submitted to the Board throughout the regulatory process.

MHBL may conduct mining, milling and associated activities at the Doris North Project in the Kitikmeot Region of Nunavut, (68° 09’ N, 106° 40’ W) including, in general, as follows:

- The use of water from Doris Lake for mining and milling processing, associated activities and domestic purposes;
- The quarrying of materials from specified locations;
- The development and operation of site facilities;
- The construction of access and site roads, airstrip, water crossings, and lay down areas;
- The construction of a temporary waste rock storage pad;
- The construction and operation of a Sewage Treatment Plant (STP);
- The construction and operation of a Landfill and Landfarm;
- The construction and operation of a sedimentation pond and pollution control pond;
- The management and disposal of wastes associated with the Sewage Treatment Plant, sedimentation and pollution control ponds, Land fill and Landfarm, and other wastes as described in the application;
- The handling and storage of petroleum products and hazardous materials;
- The construction of dams, spillway, and shoreline erosion control needed for the operation of Tail Lake as a Tailings Impoundment Area;
- The extraction of portal development rock, waste rock and ore from underground via decline;
- A mining rate of 720 tonnes per day of ore;

- A mill with a design milling throughput of 800 tonnes per day ore;
 - The deposition of tailings into the Tailings Impoundment Area (Tail Lake);
 - The disposal of waste rock, including potentially acid generating rock, and cyanide leach residue within the underground workings;
 - The controlled discharge of effluent from the Tailings Impoundment Area to Doris Creek; and
 - The progressive reclamation of on site facilities and infrastructure.
2. This Licence is issued subject to conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity, type or manner under which any such waste may be so deposited, this licence shall be deemed to be subject to such requirements.
 3. Compliance with the terms and conditions of this licence does not absolve the Licensee from responsibility for compliance with all applicable legislation, guidelines and directives.

DEFINITIONS

4. The Licensee shall refer to Schedule A for definitions of terms used in this Licence.

ENFORCEMENT

5. Failure to comply with this licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*.
6. All inspection and enforcement services regarding this licence will be provided by Inspectors appointed under the *Act*.
7. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

1. The amount of water use fees shall be determined in accordance with the Section 9(b) of the *Regulations*.
2. Payment of fees shall be made in accordance with Section 9(6)(b) of the *Regulations*.
3. The Licensee shall file an Annual Report with the Board no later than March 31 in the year following the calendar year being reported. The Annual Report shall be developed in accordance with Schedule B Item 1.
4. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times.
5. Any communication with respect to this Licence shall be made in writing to the attention of:

Manager of Licensing
Nunavut Water Board
P. O. Box 119
Gjoa Haven, NU X0B 1J0
Telephone: (867) 360-6338
Fax: (867) 360-6369
Email: licensing@nunavutwaterboard.org

6. Any notice made to an Inspector shall be made in writing to the attention of:

Water Resources Officer
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445

7. Any notice made to an Analyst shall be made in writing to the attention of:

Taiga Laboratories
Department of Indian and Northern Affairs
4601 – 52 Avenue, P.O. Box 1500
Yellowknife, NT X1A 2R3
Telephone: (867) 669-2781
Fax: (867) 669-2718

8. The Licensee shall submit one (1) paper copy and one (1) electronic copy of all reports, studies, and plans to the Board unless otherwise requested by the Board. Reports or studies submitted to the Board by the Licensee shall include an executive summary in Inuktitut and Inuinnaqtun.
9. This Licence is assignable as provided in Section 44 of the *Act*.
10. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
11. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least sixty (60) days prior to any such change.
12. The Licensee shall post signs in the appropriate areas to inform the public of the location of the Water Supply Facility and the Waste Disposal Facilities. All signs, must be in English, Inuktitut and Inuinnaqtun and shall be located and maintained to the satisfaction of an Inspector.
13. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO SECURITY

1. The Licensee shall within thirty (30) days following approval by the Minister, furnish and maintain security with the Minister in the amount of \$11.714 million dollars in the form, of the nature, subject to such terms and conditions, in accordance with, the Regulations, or that is satisfactory to the Minister.
2. The Licensee shall submit to the Board for approval, within six (6) months of the start of ore processing and again following eighteen (18) months of ore processing, an updated estimate of the total mine closure restoration liability using the current version of RECLAIM, its equivalent or other similar method approved by the Board, in accordance with principles of INAC's "Mine Site Reclamation Policy for Nunavut" (2000).
3. The Licensee shall furnish and maintain such further or other amounts of security as may be required by the Board, based on the updated estimate of current mine reclamation liability under Part C, Item 2.
4. The Licensee may submit to the Board for approval, a request for a reduction to the amount of security. The submission shall include supporting evidence to justify the request.
5. The security referred to in Part C, Item 1 shall be maintained until such time as it is fully or in part refunded by the Minister pursuant to Section 76(5) of the *Act*. This clause shall survive the expiry of this Licence or renewals thereof and until full and final reclamation has been completed to the satisfaction of the Minister.

PART D: CONDITIONS APPLYING TO CONSTRUCTION

1. The Licensee shall ensure that all fill material used is from an approved source and shall be free of contaminants.
2. The Licensee shall ensure that any chemicals, fuel or wastes associated with the undertaking do not enter any water body.
3. Equipment storage holding areas should be located on gravel, sand or other durable land, a distance of at least thirty (30) metres above the ordinary high water mark of any water body in order to minimize impacts on surface drainage and water quality.
4. Sediment and erosion control measures shall be implemented prior to and maintained during the construction and operation where necessary to prevent entry of sediment into water
5. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's operations.
6. The Licensee shall limit any in-stream activity to low water period. In-stream activity is prohibited during fish migration.
7. The Licensee shall conduct construction monitoring during all phases of the project.
8. The Licensee shall submit an annual Construction Monitoring Report no later than March 31 in the year following the calendar year being reported. The report shall be developed in accordance with Schedule D Item 1.
9. The Licensee shall include, in addition to conducting Quarry Rock Construction Monitoring and Management in accordance with the Water Licence Application, Monitoring and Follow Up Plan, dated July 2007, the following:
 - a. A subset of twenty (20) samples shall be subjected to Shake Flask Extraction (SFE) tests with an emphasis on near surface rock samples; and
 - b. Submit to the Board for review no later than 6 months after the collection of samples, a report that presents the data collected from the Quarry Rock Construction Monitoring Program. The report shall include a discussion of the interpretation of the geochemical data.
10. The Licensee shall tag any potentially acid generating rock identified through the Quarry Rock Construction Monitoring program for removal to the Temporary Waste Rock Pile, for ultimate disposal underground.
11. The Licensee shall ensure that the construction and operation of the Fuel Storage and Containment Facility(s) meets, at a minimum, all applicable legislation and industry standards that include the following:

- a. *Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products, 2003; CCME, PN 1326; and*
 - b. *National Fire Code, 1995.*
12. The Licensee shall discontinue quarry operations in Quarry#1 upon commissioning of the Fuel Storage and Containment Facility.
13. The Licensee shall, for the purposes of bridge construction, ensure that all activities remain outside of the natural channel width by the placement of abutments, footings or armouring above the ordinary high water mark so that there is no restriction to the natural channel processes.
14. The Licensee shall submit to the Board for review thirty (30) days following issuance of the licence, updated for construction drawings of the proposed all weather access road. This submission shall also include the following:
 - a. The thickness of the various materials used at the coarse rock drain locations and for the general road fill;
 - b. Details for the management of surface water adjacent to the access roads, including any contingency plans should coarse rock drains fail to operate and;
 - c. Be signed and sealed by the appropriately qualified Engineer.
15. The Licensee shall conduct all activities, including the construction of the all-weather roads, in such a way as to minimize impacts on surface drainage and shall immediately undertake any corrective measures in the event of pooling of water or any impacts on surface drainage.
16. With respect to access road, pad construction or other earthworks where direct or indirect flow into a water body is possible, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty (30) metres from the ordinary high water mark in such a fashion that they do not enter the water.
17. The Licensee shall monitor all activities for signs of erosion and shall implement and maintain sediment and erosion control measures prior to the undertaking to prevent entry of sediment into any water body.
18. The Licensee shall conduct daily visual inspections for all construction activity during spring freshet and during and after remarkable rainfall events with sampling of runoff/seepage where turbidity is evident.
19. All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a water body, shall meet the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Total Suspended Solids	50.0	100.0

20. The Licensee shall ensure that the Sewage Treatment Plant is operated in accordance with conditions provided in Part G, Item 3 with compliance at monitoring station ST-8 during construction.
21. The Licensee shall conduct a Quarry Rock Seepage Monitoring and Management program in accordance with the Water Licence Application Monitoring and Follow Up Plan, dated July 2007 and in accordance with the following:
 - a. The seep survey shall measure pH and Electrical Conductivity (EC) levels in the precipitation runoff and snowmelt that comes into contact with rock along the roadways, building pads and quarry sites;
 - b. The seep survey shall measure pH and EC levels at several reference points on the tundra not subject to mine influences;
 - c. The quarry rock seepage program shall be conducted on any ephemeral seepage present at the time of the quarry rock seepage monitoring program and not at pre-determined seepage stations;
 - d. A minimum of at least 10% of the total sample set shall be submitted for secondary analysis, regardless of the values of measured field pH and EC; and
 - e. The Quarry Rock Seepage Monitoring Program shall be expanded beyond the 100 samples to include monitoring of all rock drains.
22. The Licensee shall provide a report that presents the data collected from the Quarry Rock Seepage Monitoring Program conducted under Part D, Item 21. The report shall include a discussion of the interpretation of geochemical data and shall be presented to the Board for review, no later than six (6) months after the collection of samples.
23. The Licensee shall ensure that all rock used in construction is non-acid generating.
24. The Licensee shall not use waste rock from underground for the construction of any infrastructure.
25. The Licensee shall ensure that all containment and runoff control structures are constructed and maintained to prevent escape of wastes to the surface or groundwater systems.
26. The Licensee shall submit to the Board for review, within ninety (90) days of completion of all structures designed to contain, withhold, divert or retain waters or wastes during the construction phase, a Construction Summary Report prepared by

a qualified Engineer(s) that shall include as-built drawings, documentation of field decisions that deviate from original plans and any data used to support these decisions.

27. The Licensee shall ensure that all construction of engineered structures is supervised and field checked by an appropriately qualified and experienced Engineer in such a manner that the project specification can be enforced and, where required, the quality control measures can be followed. The Licensee shall also ensure that the construction records of all engineered structures are maintained and made available at the request of the Board and/or an Inspector.
28. The Licensee shall ensure all runoff and seepage from the Temporary Waste Rock Pad is directed to the Pollution Control Pond for collection and transfer to the Tailings Impoundment Area.
29. The Licensee shall consider the principles of adaptive management in construction and operations.

PART E: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain fresh water for domestic camp use, mining and milling and associated uses, from Doris Lake at SNP Station ST-7 using the Fresh Water Intake. The volume shall not exceed 480,000 cubic meters per year unless otherwise approved by the Board.
2. The Licensee shall maximize to the greatest practical extent, the use of reclaim water from the Tailings Impoundment Area for use in the mill.
3. The Licensee shall not use streams as a water source unless authorized and approved by the Board.
4. The Licensee shall maintain the Fresh Water Intake to the satisfaction of the Inspector.
5. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.
6. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.
7. The use of water shall not cause erosion to the banks of any body of water and the Licensee shall provide necessary controls to prevent such erosion. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

PART F: CONDITIONS APPLYING TO WATER MANAGEMENT

1. The Licensee shall submit to the Board for review by May 1, 2008, a revised Water Management Plan. The revised Plan shall include to the following:
 - a. A requirement to continuously monitor Doris Lake levels and outflow during the two (2) years of mining and beyond to confirm water balance model predictions;
 - b. Requirements for on-going monitoring and calibration of the water quality model;
 - c. A strategy to monitor and remove where necessary snow accumulation in the Pollution Control Pond, roads, ditches, and drainage channels; and
 - d. The Plan shall consider the monitoring requirements set out in Parts J and K;
2. In the event that the revised Water Management Plan required in Part F, Item 1 is not found acceptable to the Board, the Licensee shall provide a revised version to the Board for review within thirty (30) days of notification by the Board.
3. The Licensee shall implement the Water Management Plan upon as approved by the Board.
4. The Licensee shall carry out regular inspections of all water management structures during periods of flow (rock drains, culverts, sedimentation and pollution control ponds and associated diversion berms) and the records be kept for review upon request of an Inspector. More frequent inspections may be required at the request of an Inspector.

PART G: CONDITIONS APPLYING TO WASTE MANAGEMENT AND WASTE MANAGEMENT PLANS

1. The Licensee shall provide at least 10 days notice to the Inspector prior to any planned discharges of any Facilities. The notice shall include the estimated volume proposed for discharge and location.
2. The Licensee shall ensure that all land applied discharges are performed in a manner that prevents erosion at the point of discharge and downstream.
3. The Licensee shall operate the Sewage Treatment Plant in accordance with the following:
 - a. All Sewage and Greywater shall be collected and treated in the Sewage Treatment Plant;
 - b. During the construction phase, all effluent from the Sewage Treatment Plant at monitoring station ST-8 shall not exceed the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Allowable Grab Sample Concentration (mg/L)
pH	6-9	9
Total Suspended Solids (TSS)	100	100
BOD ₅	80	80
Fecal Coliforms	10,000 CFU/ 100mL	10,000 CFU/ 100mL
Total Oil and Grease	5 and no visible sheen	10 and no visible sheen

- c. During site construction, treated effluent from the Sewage Treatment Plant shall be discharged approximately 400 metres north of the camp pad;
 - d. Once the Tailings Impoundment Area is operational, all treated effluent from the Sewage Treatment Plant shall be discharged to the Tailings Impoundment Area; and
 - e. The Licensee shall notify an Inspector at least ten (10) days prior to start-up of the Sewage Treatment Plant and subsequent discharge from the facility.
4. The Licensee shall submit a Sewage Treatment Management Plan, to the Board for review sixty (60) days prior to commissioning the Sewage Treatment Plant that takes into consideration operation, maintenance and sludge management.
 5. The Licensee shall dispose of all food waste in an incinerator designed for this purpose.
 6. The Licensee shall ensure that any on-site incinerator meets the requirements of the Canada-Wide Standards for Dioxins and Furans and Canada-Wide Standards for Mercury emissions.
 7. The Licensee shall submit to the Board for review by May 1, 2008 an Incineration Management Plan in conjunction with Part G, Item 9.
 8. The Licensee is restricted to the open burning of paper products, paperboard packing and untreated wood waste in accordance with the Government of Nunavut policy *Municipal Solid Wastes Suitable for Open Burning*.
 9. The Licensee shall submit to the Board for review by May 1, 2008, a revised Landfill Management Plan. The Plan shall consider the following:
 - a. Recycling/segregation waste program;
 - b. Incineration technology selected;
 - c. Waste audit – amount and types of wastes to be incinerated or otherwise disposed;
 - d. Consolidation of wastes;
 - e. Operational and maintenance records;
 - f. Operator Training;

- g. Emission measurements;
 - h. Incinerator Ash disposal;
 - i. Consideration for disposal of used oil and waste fuel; and
 - j. Monitoring, characterization, and disposal of incinerator ash.
- 10. The Licensee is authorized to dispose of and contain all non-hazardous solid wastes at the Landfill or as otherwise approved by the Board.
- 11. The Licensee shall submit to the Board for review by June 1, 2008, a revised Hazardous Waste Management Plan. The handling and disposal of wood crates used in the shipment of sodium cyanide shall be included in the Plan.
- 12. The Licensee shall back haul and dispose of all hazardous wastes generated through the course of the operation at an approved waste disposal site.
- 13. The Licensee shall maintain records of all waste backhauled and confirmation of proper disposal. These records shall be made available to an Inspector upon request.
- 14. The Licensee shall submit to the Board for review by June 1, 2008, a revised Landfarm Management Plan. The Plan shall include the following:
 - a. Operation and maintenance considerations including the methods of characterization, segregation and treatment;
 - b. Confirmation of the Soil Quality Remediation Objectives (SQROs) and distinction between where parkland versus industrial standards will be applied;
 - c. Contingency measure for contaminated soils that do not meet the SQROs; and
 - d. Any proposed future uses.
- 15. The Licensee shall submit to the Board for review by April 1, 2008, a Revised Waste Rock Management Plan.
- 16. The Licensee shall store all potentially acid generating rock at the Temporary Waste Rock Pad prior to ultimate disposal underground as mine backfill, unless otherwise approved by the Board.
- 17. All Waste Rock brought to surface from the underground shall be stored on the Temporary Waste Rock Pad and returned underground as backfill and is not to be used for any purpose unless otherwise approved by the Board.
- 18. The Licensee shall segregate mineralized from un-mineralized Waste Rock on the Temporary Waste Rock Pad.
- 19. The Licensee shall operate the Sewage Treatment Plant, Landfill, Landfarm, Fuel Storage and Containment Facilities, Sedimentation Pond, and Pollution Control Pond to the satisfaction of the Inspector.

20. All Water from the Pollution Control Pond shall be directed to the Tailings Impoundment Area, unless otherwise authorized by the Board.
21. The Licensee shall operate and maintain the Sedimentation Pond in accordance with the following:
- a. Water discharged from the Sedimentation Pond at monitoring station ST-1 shall not exceed the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration in any Grab Sample (mg/L)
pH	6.0-9.0	9.0
Total Suspended Solids	15.0	30.0
Total Ammonia –N	2.0	4.0
Total CN	1.0	2.0
Total Oil and Grease	5 and no visible sheen	10 and no visible sheen on pond
Total Aluminum – T-Al	1.0	2.0
Total Arsenic – T-As	0.05	0.10
Total Copper – T-Cu	0.02	0.30
Total Iron – T-Fe	0.30	0.60
Total Lead – T-Pb	0.01	0.02
Total Nickel – T-Ni	0.05	0.10
Total Zinc – T-Zn	0.01	0.02

- b. The Licensee shall establish compliance with effluent quality limits prior to discharge;
- c. Water from the Sedimentation Pond that is acceptable for discharge under Part G, Item 22(a) shall be discharged immediately south of the facility approximately 500m upstream of Doris Lake, or as designated by an Inspector; and
- d. Sedimentation Pond Water that does not meet criteria in Part G, Item 21(a) shall be directed to the Tailings Impoundment Area.
22. The Licensee shall operate and maintain the Sumps in accordance with the following:
- a. Water discharged from the Landfill Sump at monitoring station ST-3 shall not exceed the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration in any Grab Sample (mg/L)
pH	6.0-9.0	9.0
Total Suspended Solids (TSS)	15.0	30.0
Total Ammonia –N	2.0	4.0
Total Cyanide (CN)	1.0	2.0
Total Oil and Grease	5 and no visible sheen on water surface	10 and no visible sheen on water surface
Total Aluminium – T - Al	1.0	2.0
Total Arsenic – T-As	0.05	0.10
Total Copper – T-Cu	0.02	0.04
Total Iron – T- Fe	0.3	0.6
Total Lead – T- Pb	0.01	0.02
Total Nickel – T- Ni	0.05	0.10
Total Zinc – T - Zn	0.01	0.02

- b. Water from the Landfill Sump that is acceptable for discharge under Part G, Item 22(a) may be discharged to the tundra immediately east of Quarry #2 or as designated by an Inspector;
- c. All Water discharged from the Landfarm Sump at monitoring station ST-4 shall not exceed the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration in any Grab Sample (mg/L)
pH	6.0-9.0	9.0
Total Suspended Solids (TSS)	15.0	30.0
Total Oil and Grease	5 and no visible sheen	10 and no visible sheen
Total Ammonia-N	2.0	4.0
Total Lead	0.01	0.02
Benzene	0.37	-
Toluene	0.002	-
Ethyl Benzene	0.090	-

- d. Water from the Landfarm Sump that is acceptable for discharge under Part G, Item 22(c) may be discharged to the tundra or as designated by an Inspector;
- e. Water discharged from the Fuel Storage and Containment Facility Sumps at monitoring stations ST-5 and ST-6 shall not exceed the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration in any Grab Sample (mg/L)
pH	6.0-9.0	9.0
TSS	15	30
Total Oil and Grease	5	10
Total Lead	0.01	0.02
Benzene	0.37	-
Toluene	0.002	-
Ethyl Benzene	0.090	-

- f. Water from the Fuel Storage and Containment Facility Sump that is acceptable for discharge under Part G, Item 22(e) may be discharged to the tundra or as designated by an Inspector; and
 - g. Sump water from the Landfill, Landfarm and Fuel Storage and Containment Facility that does not meet the criteria in Part G, Items 22(a),(c) and (e) respectively shall be directed to the Tailings Impoundment Area.
23. The Licensee shall submit to the Board for review by September 1, 2008, a revised Tailings Management Plan. The Plan shall include Shoreline Erosion Protection Adaptive Management strategies for monitoring and control.
24. The Licensee shall operate and maintain the Tailings Impoundment Area (TIA) to engineering standards such that:
- a. The Licensee shall maintain a minimum freeboard limit of one (1) meter below the top of the frozen core of the North and South Dams or as recommended by a Geotechnical Engineer;
 - b. Implement contingency measures where necessary to prevent overtopping of the North Dam;
 - c. Implement the Shoreline Erosion Protection and Adaptive Management strategies as required;
 - d. The Licensee shall collect and return seepage from the TIA, as determined by monitoring and follow-up water quality analyses;
 - e. The Licensee shall carry out at a minimum, weekly inspections to identify and remediate where necessary, areas of concern including issues of seepage, cracking, and ponding for all structures associated with the TIA including the North and South Dams, Emergency Dump Catch Basins, pipeline(s), pumps, mill tailings discharge points and other associated structures. The records shall be kept for review upon request of an Inspector;
 - f. The Licensee shall consult the Geotechnical Engineer when significant issues associated with the TIA are observed and implement the Engineer's recommendations as necessary;

- g. The solids fractions of all mill tailings (except for filtered cyanide leach residue placed underground as mine backfill) shall be deposited and permanently contained within the Tailings Impoundment Area;
 - h. An annual Geotechnical inspection shall be carried out in accordance with Part J, Item 19;
 - i. The Licensee shall, during operations, conduct a bathymetric survey of Tail Lake on an annual basis during summer, to facilitate tailings deposition management;
 - j. The Licensee shall, during construction, operations and closure, conduct a daily visual assessment of suspended sediment in the Tailings Impoundment Area;
 - k. The Licensee shall perform more frequent inspection of the facilities at the request of an Inspector;
 - l. The Licensee shall place all filtered cyanide leach residue underground as mine backfill to remain frozen within permafrost; and
 - m. The Licensee shall provide at least ten (10) days written notice to an Inspector prior to any planned discharges from the Tailings Impoundment Area to Doris Creek.
25. The Licensee shall implement the Tailings Water Management Strategy in accordance with the following:
26. All Water discharged from the Tailings Impoundment Area at monitoring station TL-4 shall not exceed the following effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
pH	6.0 – 9.5 s.u.	6.0 – 9.5 s.u.
Total Suspended Solids (TSS)	15.00	30.00
Total Arsenic – T-As	0.50	1.00
Total Copper – T- Cu	0.30	0.60
Total Cyanide – T-CN	1.00	2.00
Total Lead – T-Pb	0.20	0.40
Total Nickel – T-Ni	0.50	1.00
Total Zinc – T- Zn	0.50	1.00
Radium 226	0.37 Bq/L	1.11 Bq/L
Biological Oxygen Demand	80	160
Fecal Coliforms	10,000 CFU/100 mL	10,000 CFU/100 mL
Total Ammonia-N	6	-

27. The Licensee shall ensure that effluent discharged from monitoring stations TL-1 and TL-4 is demonstrated to be non-acutely toxic in accordance with Part J, Item 8.

28. During periods of discharge, water quality in Doris Creek at monitoring station TL-3 shall not exceed the greater of background water quality at the time of discharge as measured at monitoring station TL-2, or the following water quality limits:

Parameter	Maximum Concentration of Any Grab Sample (mg/L)
pH	6.0-9.0 s.u.
Total Suspended Solids (TSS)	15.0
Total Oil and Grease	5
Chloride	150
Free Cyanide	0.005
Total Cyanide	0.010
Total Ammonia N	1.54 at pH 7.5 and temperature of 20 degrees C ¹
Nitrate N	2.9
Nitrite N	0.060
Total Aluminum – T-Al	0.100
Total Arsenic – T-As	0.0050
Total Cadmium – T-Cd	0.000017
Chromium (VI)	0.0010
Total Copper – T-Cu	0.002
Total Iron – T-Fe	0.300
Total Mercury – T-Hg	0.000026
Total Molybdenum- T-Mo	0.073
Total Nickel – T-Ni	0.025
Total Lead – T-Pb	0.001
Total Selenium – T-Se	0.0010
Total Silver – T-Ag	0.0001
Total Thallium – T-Tl	0.0008
Total Zinc – T-Zn	0.030

1. Total Ammonia concentration discharge varies with pH and temperature as per Schedule G

29. The Licensee shall ensure that water within the Tailings Impoundment Area is maintained at an elevation of least 28.3 metres above sea level such that a minimum of four (4) metres of water cover is maintained over the tailings at all times.
30. The Licensee shall ensure that the flow from the Tailings Impoundment Area into Doris Creek at monitoring station TL-4 does not exceed 10% of the background flow in Doris Creek as measured at monitoring station TL-2 at the time of discharge.
31. The Licensee shall on a monthly basis, input average monthly water quality, hydrology and climate monitoring data in to the water quality model and perform the following assessment:
- Compare the predicted water elevation in the Tailings Impoundment Area to the measured elevations. If the difference between predicted and measured elevations is greater than 0.1m, then the Licensee shall re-calibrate the volume rating curve;

- b. Compare the predicted water quality in the Tailings Impoundment Area to the measured water quality. If the difference between predicted and measured values is 20% or greater, then the cause(s) of the difference shall be identified and the water quality model shall be re-calibrated; and
- c. Predict the future discharge schedule and compare this prediction to the previously predicted discharge schedule. If necessary identify adaptive management strategies.

PART H: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. such Modifications are consistent with NIRB Project Certificate;
 - d. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - e. The Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part H, Item 1 has not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART I: CONDITIONS APPLYING TO CONTINGENCY PLANNING

1. The Licensee shall submit to the Board for review, within sixty (60) days of the issuance of this Licence, a revised Emergency Response and Contingency Plan in accordance with the *Spill Contingency Planning and Reporting Regulations* developed under the *Environmental Protection Act (Nunavut)*. The revised Plan shall include a consideration of the revised scope of the Project and a revisions list detailing where significant content changes are made.
2. In the event that the revised Plan referred to in Part I, Item 1, is not acceptable to the Board, the Licensee shall make the necessary revisions and re-submit to the Board within thirty (30) days of notification by the Board.

3. The Licensee shall, with the exception of pending changes to the Plan, implement the Plan referred to in Part I, Item 1.
4. The Licensee shall review the Emergency Response and Contingency Plan annually and revise the Plan as necessary to reflect changes in operation and/or technology. Proposed changes to the Plan may be submitted to the Board for review, in the form of an addendum as part of the Annual Report under Part B, Item 3, complete with a revisions list detailing where significant content changes are made.
5. The Licensee shall ensure that any chemicals, petroleum products or unauthorized wastes associated with the project do not enter water. All Sumps and fuel caches shall be located at a distance of at least thirty (30) metres from the ordinary high water mark of any adjacent water body.
6. The Licensee shall provide to the satisfaction of an Inspector, secondary containment for fuel storage as required by applicable standards and acceptable industry practice.
7. The Licensee shall perform regular inspections of Fuel Storage and Containment Areas, Sumps, Emergency Dump Catch Basins, other fuel tanks and connectors for leaks and movement and shall keep a written log of inspections to be made available to an Inspector upon request. More frequent inspections may be required at the request of an Inspector.
8. If, during the period of this Licence an unauthorized discharge of waste and or effluent occurs, or if such discharge is foreseeable, the Licensee shall:
 - a. Employ the Emergency Response and Contingency Plan;
 - b. Report the incident immediately via the 24-Hour Spill Reporting Line (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - c. For each spill occurrence, submit a detailed report to the Inspector, no later than thirty (30) days after initially reporting the event, which includes the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.
9. If the Licensee provides notification under Part L, Item 2, the Licensee shall submit to the Board, an addendum to the Emergency Response and Contingency Plan, detailing the changes in operations, personnel, responsibilities, availability of equipment and access to the site for assistance.

PART J: CONDITIONS APPLYING TO GENERAL AND AQUATIC EFFECTS MONITORING

1. The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods required for the measuring of water use and Effluent discharge volumes, to be operated and maintained to the satisfaction of an

Inspector.

2. The Licensee shall install appropriate instrumentation in Doris Creek at Monitoring Station TL-2, to monitor flow when ice conditions allow for such measurements to be taken, on a real time and continuous basis.
3. The Licensee shall undertake the Water Monitoring Program detailed in the Tables of Schedule J.
4. The Licensee shall:
 - a. Increase the sampling frequency to once every second day at monitoring stations TL-1, TL-2 and TL-3; should the measured concentration of any parameter listed under Part G, Item 28 at TL-3 deviate by more than 20% from that predicted by the water quality model; and
 - b. Submit to the Board and an Inspector an understanding and justification of any discrepancy should the Licensee request a reduction in sampling frequency.
5. The Licensee, in consultation with an Inspector, shall establish the locations and GPS coordinates for all monitoring stations referred to in Schedule J.
6. The Licensee shall install and maintain, to the satisfaction of an Inspector, signs that identify monitoring stations. The signs shall be posted in English, Inuktitut and Inuinnaqtun.
7. Additional monitoring may be requested by the Board or by the Inspector.
8. The Licensee shall conduct Acute Lethality Testing , at monitoring station TL-1 prior to discharge and at monitoring station TL-4 monthly thereafter during discharge, in accordance with the following test procedures:
 - a. Acute lethality to Rainbow Trout, *Oncorhynchus mykiss* (in accordance with Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13); and
 - b. Acute lethality to the crustacean, *Daphnia magna* (in accordance with Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/14).
9. All analyses shall be conducted as described in the most recent edition of "Standard Methods for the Examination of Water and Wastewater" or by other such methods approved by an Analyst.
10. All compliance analyses shall be performed in an accredited laboratory according to ISO/IEC Standard 17025.

11. The Licensee shall file a letter with the Board for review confirming application for accreditation for the on-site environmental laboratory prior to operations.
12. The Licensee shall measure and record all flow and volume measurements on a monthly basis (unless otherwise stated):
 - a. The volume of freshwater obtained from Doris Lake for potable water;
 - b. The volume of freshwater obtained from Doris Lake for process water;
 - c. The volume of reclaim water obtained from Tail Lake for process water at Monitoring Station TL-8;
 - d. Tonnages of mineralized and un-mineralized waste rock stored on the Temporary Waste Rock Pad on a monthly basis during construction, operations, and closure;
 - e. Tonnage of waste rock returned underground on a monthly basis during construction, operation and closure;
 - f. The volume of sewage sludge removed from the Sewage Treatment Plant and the locations or method of sewage sludge disposal during construction, operation and closure; and
 - g. The ice thickness in Tail Lake measured on a monthly basis during construction, operations and closure.
13. The Licensee shall measure and record in tonnes (unless otherwise stated) including the location of disposal (temporary and permanent) for the following:
 - a. The daily dry tonnes of combined tailings placed in the Tailings Impoundment Area;
 - b. The daily dry tonnes of cyanide leach residue; and
 - c. The monthly quantity of ore processed.
14. The Licensee shall undertake the Thermal Monitoring Program detailed in Table 3 of Schedule J.
15. The Licensee shall continue to monitor thermistors located between the Tailings Impoundment Area and Doris Lake and between Doris Lake and the underground workings. The monitoring shall be consistent with the baseline thermal monitoring program and shall be included in Table 3 of Schedule J.
16. The Licensee shall install additional thermistors to monitor rock temperatures surrounding the underground mine openings, particularly in the pillar adjacent to the Doris Lake Talik. These thermistors shall be added to Table 3 of Schedule J and shall be monitored on a monthly basis during operations and closure.
17. The Licensee, in consultation with an Inspector, shall establish and confirm the locations and GPS coordinates for all monitoring stations referred to in Part J, Item 16.

18. The Licensee shall ensure that a geotechnical inspection is carried out annually between July and September by a Geotechnical Engineer. The inspection shall be conducted in accordance with the *Canadian Dam Safety Guidelines* where applicable and take into account all major earthworks, including the following:
- a. North and South Dams;
 - b. Geotechnical instrumentation and associated monitoring data;
 - c. Tailings Impoundment Area shoreline and erosion strip survey monitoring results;
 - d. Emergency Dump Catch Basins;
 - e. All weather access roads;
 - f. Roberts Bay Jetty;
 - g. Landfill;
 - h. Landfarm;
 - i. Fuel Storage and Containment Facilities at the Plant Site and Roberts Bay site;
 - j. Sedimentation Pond;
 - k. Pollution control Pond;
 - l. Sumps;
 - m. Underground mine openings;
 - n. Groundwater conditions underground; and
 - o. Rock temperature measurements and groundwater inflow in the underground mine workings.
19. The Licensee shall submit to the Board within sixty (60) days of completion of the geotechnical inspection, the Geotechnical Engineer's inspection report. The report shall include a cover letter from the Licensee outlining an implementation plan addressing each of the Geotechnical Engineer's recommendations.
20. The Licensee shall visually monitor and record observations on a daily basis during periods of discharge, all discharge onto the tundra from the:
- a. Landfill Sump;
 - b. Sedimentation Pond;
 - c. Landfarm Sump;
 - d. Plant Site Fuel Storage and Containment Area Sump;
 - e. Roberts Bay Fuel Storage and Containment Area Sump; and
 - f. Sewage Treatment Plant (during the construction phase).

The monitoring results shall be made available to an Inspector upon request

21. The Licensee shall, within thirty (30) days following the month being reported, submit to the Board a monthly monitoring report in an electronic and hardcopy. The Report shall include the following:
- a. All data and information required by this Part and generated by the Monitoring Program in the Tables of Schedule J;

- b. Copies of results required by NIRB Project Certificate Item 10;
- c. An assessment of data to identify areas of non-compliance with regulated discharge parameters referred to in Part G;
- d. A summary of monthly operational assessments of the water balance and water quality model; and
- e. Results of daily visual assessment of suspended sediment along the perimeter of the Tailings Impoundment Area shoreline during construction, operations, and closure.

PART K: CONDITIONS APPLYING TO GENERAL AND AQUATIC EFFECTS MONITORING PLANS

1. The Licensee shall submit to an Analyst for approval by March 1, 2008, a Quality Assurance/ Quality Control Plan that includes field and laboratory procedures and requirements. This Plan shall be developed in accordance with the *1996 Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" (INAC)*.
2. If the Analyst does not approve the Plan referred to in Part K, Item 1, the Licensee shall revise the specific plan and resubmit to the Analyst for approval within thirty (30) days of notification by the Board.
3. The Licensee shall annually review the approved QA/QC Plan and modify the Plan as necessary. Proposed changes shall be submitted to an Analyst for approval.
4. The Licensee shall implement the QA/QC Plan as and when approved by the Analyst.
5. The Licensee shall submit to the Board for review by March 01, 2008, a revised version of the July 2007 Monitoring and Follow-Up Plan.
6. The Licensee shall confirm the absence of seepage from the Temporary Waste Pad in groundwater downstream of the Pollution Control Pond.
7. The Licensee shall submit to the Board for approval by March 31, 2008, a proposal for the development of an Aquatic Effects Monitoring Plan (AEMP) in consultation with Environment Canada. The proposal for an AEMP shall consider modifications and advances in schedule which are consistent with the objectives and requirements of the MMER.
8. The Licensee and Environment Canada shall coordinate with the NWB to ensure that the advanced submission of the AEMP meets the requirements of MMER.
9. The Licensee shall continue to collect baseline data consist with previously collected baseline data until such time as an AEMP is approved and implemented.

10. The Licensee shall implement the Plans referred to in this Part of the water licence as and when approved by Board unless otherwise stated.

**PART L: CONDITIONS APPLYING TO ABANDONMENT,
RECLAMATION AND CLOSURE**

1. The Licensee shall notify the Board in writing, at least sixty (60) days prior any intent to achieve Recognized Closed Mine status.
2. The Licensee shall notify the Board, as soon as practically possible, of any intent to enter into a Care and Maintenance Phase.
3. The Licensee shall provide to the Board, notification in writing, of the start of ore processing. Notification may be provided in accordance with monthly monitoring report as per Part J, Item 21.
4. The Licensee shall submit to the Board for approval within six (6) months of the start of ore processing, an Interim Closure and Reclamation Plan prepared in accordance with the *Mine Site Reclamation Guidelines for the Northwest Territories, 2007* and consistent with the *INAC Mine Site Reclamation Policy for Nunavut, 2002*. The Plan shall include the following:
 - a. Detailed description, including maps and other visual representations, of the pre-construction conditions for each site, accompanied by a detailed description of the proposed final landscape, with emphasis on the reclamation of surface drainage over the restored area;
 - b. A description of how progressive reclamation will be employed and monitored throughout the life of the mine, plus reclamation scheduling and coordination of activities with the overall sequence of the project; details of reclamation scheduling and procedures for coordinating reclamation activities within the overall mining sequence and materials balance;
 - c. Implications of any water quality model re-calibration results on the Tailings Impoundment Area discharge strategy and any adaptive management measures that may be required;
 - d. An evaluation of closure and reclamation measures for each mine component, including the goals, objectives, closure criteria and the rationale for selection of the preferred measures;
 - e. A comprehensive assessment of materials suitability, including geochemical and physical characterization, and schedule of availability for reclamation needs, with attention to cover materials, including maps where appropriate, showing sources and stockpile locations of all reclamation construction materials and any water related mitigation required during implementation;
 - f. An assessment and description of any required post-closure treatment for drainage water that is not acceptable for discharge from any of the reclaimed mine components;

- g. Contingency measures for all reclamation components including action thresholds that are linked to the monitoring programs;
 - h. Monitoring programs to assess reclamation performance and environmental conditions including monitoring locations for surface water and groundwater, parameters, schedules and overall timeframes;
 - i. QA/QC procedures for managing the demolition landfill and other waste disposal areas;
 - j. The requirement that all waste rock shall be disposed underground unless otherwise approved by the Board;
 - k. Underground mine plans and sections, including the areas of backfill, the type of material placed and volumes should also be included;
 - l. Protocol for the disposal of any contaminated soil into the underground mine at closure;
 - m. An assessment of the long-term physical stability of all remaining project components including the north and south dams;
 - n. Detailed criteria for the final breaching of the North Dam;
 - o. A revised closure and reclamation cost estimate; and
 - p. A detailed implementation schedule for completion of reclamation work.
5. The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an addendum to be included with the Annual Report, unless directed otherwise by an Inspector.
6. The Licensee shall submit to the Board for approval within eighteen (18) months of the start of ore processing, a Final Mine Closure and Reclamation Plan prepared in accordance with the *Mine Site Reclamation Guidelines for the Northwest Territories, 2006* and consistent with the *INAC Mine Site Reclamation Policy for Nunavut, 2002*. The Final Plan shall incorporate revisions, which reflect the pending closed status of the mine, and include the following:
- a. Soil Quality Remediation Objectives along with CCME Guidelines and the Government of Nunavut *Environmental Guideline for Site Remediation*;
 - b. Environmental Site Assessment plans in accordance Canadian Standards Association (CSA) criteria; and
 - c. Evaluation of the Human Health and Ecological Risk Assessment.
7. The Licensee shall, if not approved by the Board, revise the Plan(s) referred to in this Part and resubmit to the Board for approval within thirty (30) days of receiving notification of the Board's decision.
8. The Licensee shall complete all reclamation work in accordance with the Plan(s) referred to in this Part as and when approved by the Board.
9. The Licensee shall implement progressive reclamation, including revegetation as soon as practically possible.

Schedules are provided for:

A – Definitions

B – General Conditions

D – Conditions Applying to Construction

G – Conditions Applying to Waste Management and Waste Management Plans

J – Conditions Applying to General and Aquatic Effects Monitoring

Schedule A - Definitions

In this Licence: 2AM-DOH0713

“**Abandonment**” means the permanent dismantlement of a facility so it is permanently incapable of its intended use. This includes the removal of associated equipment and structures;

“**Act**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Acid Rock Drainage (ARD)**” means the production of acidic leachate, seepage or drainage from underground workings, ore piles, waste rock, and portal development rock that can lead to the release of metals to groundwater or surface water during the life of the Project and after closure;

“**Acutely Lethal Effluent**” means effluent as defined in the *Metal Mining Effluent Regulations* SOR/2002-222 dated 6 June 2002;

“**Adaptive Management**” means a management plan that describes a way of managing risks associated with uncertainty and provides a flexible framework for the mitigation measures to be implemented and actions to be taken when specified thresholds are exceeded;

“**Aliquot**” means the amount comprising a known fraction of a whole and constituting a sample used for analysis;

“**Amendment**” means a change to any terms and conditions of this Licence, through application to the NWB, requiring correction, addition, or deletion of specific terms and conditions of the Licence;

“**Analyst**” means an Analyst designated by the Minister under Section 85 (1) of the *Act*;

“**Annually**” means, in the context of monitoring frequency, one sampling event occurring every 365 days with a minimum of 200 days between sampling events;

“**Aquatic Effects Monitoring Plan (AEMP)**” means a monitoring program designed to determine the short and long-term effects in the aquatic environment resulting from the Project, to evaluate the accuracy of impact predictions, to assess the effectiveness of planned impact mitigation measures and to identify additional impact mitigation measures to avert or reduce environmental effects;

“**Beach Laydown Area**” means the area designed for temporary storage of equipment and materials at Roberts Bay as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area

and Surface Infrastructure Components”, DWGS S-01 dated Mar 2007, SRK Job Number ICM014.008;

“**Board**” means the Nunavut Water Board established under Article 13 of the *Nunavut Land Claims Agreement* and under Section 14 of the *Act*;

“**Canadian Council of the Minister of Environment (CCME)**” means the organizations of Canadian Ministers of Environment that sets guidelines for environmental protection across Canada such as the Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life;

“**Care and Maintenance**” in respect of a mine, means when the Licensee ceases production or commercial operation temporarily for an undefined period of time;

“**Chief Administrative Officer**” means the Executive Director of the Nunavut Water Board;

“**Closure**” means when a mine ceases operations without the intent to resume mining activities in the future;

“**Commercial Operation**” in respect of a mine, means an average rate of production that is equal to or greater than 25% of the design rated capacity of the mine over a period of 90 consecutive days;

“**Construction**” means any activities undertaken to construct or build any component of, or associated with, the development of the Doris North Mine Project, as described in the Revised Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted to the Board throughout the regulatory process;

“**Dam Safety Guidelines**” means the *Canadian Dam Association (CDA) Dam Safety Guidelines (DSG)*, January 1999 or subsequent approved editions;

“**Deleterious Substances**” means a substance as defined in Section 34(1) of the *Fisheries Act*;

“**Deposit**” means the placement of waste rock, tailings or other solids materials on land or in water;

“**Discharge**” means the release of any water or waste to the receiving environment;

“**Dissolved Metals**” means the suite of metals referred to as MD in Schedule J Table 1 entitled Monitoring Groups. Dissolved metals shall be analyzed on a filtered sample;

“Domestic Waste” means all solid waste generated from the accommodations, kitchen facilities and all other site facilities, excluding those industrial and hazardous wastes associated with the mining and processing of ore;

“Effluent” means the liquid discharge from all site water management facilities;

“Emergency Dump Catch Basin” means a facility designed to contain tailings and reclaim water from the tailings and reclaim pipelines as described in the Revised Water Licence Application Supporting Document S1 entitled “Design of Tailings Containment Area” and as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components”, DWGS T-13 dated March 2007, SRK Job Number ICM014.008;

“Engineer” means a professional engineer registered to practice in Nunavut in accordance with the *Engineering, Geological and Geophysical Act (Nunavut)* S.N.W.T. 1998, c.38, s.5;

“Engineering Geologist” means a professional geologist registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization is the investigation and interpretation of geological conditions for civil engineering purposes;

“Explosives Mixing and Storage Facility” means a facility designed for the storage of ammonium nitrate, detonators and explosives; and designed for the mixing and storage of Ammonium Nitrate Fuel Oil (ANFO), as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components”, DWG. S-04 dated Mar 2007, SRK Job Number ICM014.008;

“Fuel Storage and Containment Facility” means the facilities designed for the bulk storage of fuel at the Doris North Plant site and Roberts Bay as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components”, DWGS S-05 and S-06 dated Mar 2007, SRK Job Number ICM014.008; and the Water Licence Pre-Hearing Technical Meeting Information Supplement Figure 1, Project Number 334499;

“Geotechnical Engineer” means a professional engineer registered with the Association of Professional Engineers, Geologist and Geophysicists of Nunavut and whose principal field of specialization with the engineering properties of earth materials in dealing with man-made structures and earthworks that will be built on a site. These can include shallow and deep foundations, retaining walls, dams, and embankments;

“Engineered Structure” means any facility, which was designed and approved by a Professional Engineer registered with the Association of Professional Engineers, Geologists and Geophysicists of Nunavut;

“Environmental Assessment” means, for the purpose of this licence, the totality of the Nunavut Impact Review Board (NIRB) Public Registry as established under the authority of Article 12 of the NLCA, this includes everything that was submitted by Miramar Hope Bay Limited to the NIRB, the scope of which is consistent with the Water Licence Application;

“Float Plane Dock” means the infrastructure designed to allow for the offloading of supplies from a Twin Otter Plane using a Bobcat forklift as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG S-09 dated Mar 2007, SRK Job Number ICM014.008;

“Freeboard” means the vertical distance between the water level and the top of the containment element (i.e. a liner), within a dam or any other channel or pond used for containment of site runoff;

“Fresh Water Intake” means the infrastructure required for extraction of water as described in the Water Licence Pre-Hearing Information Supplement Part A Item #4 and illustrated in SNC Lavalin Drawing Numbers 0011 and 0007, Project Number 334499;

“Frozen Core” means a permafrost core comprising frozen ice-saturated aggregate material and functioning as an impervious seepage barrier;

“Grab Sample” means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;

“Greywater” means the component of effluent produced from domestic use (i.e. washing, bathing, food preparation and laundering), excluding sewage;

“Ground Ice” means ice that occupies fractures in rock and soil below the ground surface and may be present as ice inclusion in permafrost, soil or rock, as pore ice, lense ice or massive ice;

“Ground Water” means water that occupies pores and fractures in rock and soil below the ground surface in a liquid or frozen state;

“Hazardous Materials” means a contaminant which is a dangerous good that is no longer used for its original purpose and is intended for recycling, treatment, disposal or storage;

“ICP Metals Scan” means, for the purpose of the Licence, elements detected in an inductively coupled plasma (ICP) mass spectrometer. Metal parameters should be consistent with baseline data previously collected and include any other metals of concern or interest;

“Inspector” means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

“Interim Closure and Reclamation Plan” means a conceptual detailed plan on the reclamation of mine components which will not be closed until near the end of the mining operations, and operational detail for components which are to be progressively reclaimed earlier in the mine life;

“Landfill” means a facility designed to permanently contain solid, non-combustible, non-hazardous waste materials, as described in the Revised Water Licence Application Supporting Document S10g entitled “Landfill Management Plan” and illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG S-13 and S-14 dated Mar 2007, SRK Job Number ICM014.008;

“Landfarm” means a lined, engineered area designed to contain and treat hydrocarbon impacted sediment and soil using bioremediation as described in the Revised Water Licence Application Supporting Document S10h entitled “Landfarm Management Plan” and illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG S-13 and S-14 dated Mar 2007, SRK Job Number ICM014.008;

“Licence” means this Type “A” Water Licence 2AM-DOH0713, issued by the Nunavut Water Board in accordance with the *Act*, to Miramar Hope Bay Limited (MHBL) for the Doris North Project;

“Licensee” means to whom Licence 2AM-DOH0713 is issued to or assigned;

“Maximum Average Concentration” means the average concentration of any four consecutively collected samples taken from the identical sampling location and taken during any given timeframe;

“Metal Leaching” means the mobilization of metals into solution under neutral, acidic or alkaline conditions;

“Mine Water” means any water, including groundwater, that is pumped or flows out of any underground workings or open pit;

“Minister” means the Minister of Indian and Northern Affairs Canada;

“Modification” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

“Monthly” means, in the context of monitoring frequency, one sampling event occurring every 30 days with a minimum of 21 days between sampling events;

“North Dam” means the infrastructure designed as a water retaining structure utilizing a central frozen core with a geosynthetic clay liner (GCL) installed against the upstream side of the core, as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG T-03, SRK Job Number ICM014.008;

“Nunavut Land Claims Agreement” (NLCA) means the “*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*,” including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Nutrients” means the suite of parameters referred to as N1 and N2 in Schedule J Table 1 entitled Monitoring Groups;

“Operations” means the entire set of site activities (excluding construction and decommissioning activities) associated with mining, processing and recovery of gold at the Doris North Project, as described in the Revised Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted to the Board throughout the regulatory process;

“Operator” means the person who operates, has control or custody of, or is in charge of a mine or recognized closed mine;

“Ore Stockpile” means the above-ground facility designated for the temporary storage of ore to be processed in the mill as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG S-07 dated Mar 2007, SRK Job Number ICM014.008;

“Pollution Control Pond” means a facility designed to temporarily contain stormwater runoff from the camp mill pad, specifically the temporary waste rock pile, the ore stockpile, the crusher and mill yard areas as described in the Revised Water Licence Application Supporting Document S10j entitled “Water Management Plan”, the Water Licence Pre-Hearing Technical Meeting Information Supplement Part B Item #6 and illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG S-07 and S-08 dated Mar 2007, SRK Job Number ICM014.008;

“Portal Development Rock” means rock that will be produced at the beginning of mine life, as the underground access ramp is driven from the collar location to the ore body;

“Progressive Reclamation” means actions that can be taken during mining operations before permanent closure, to take advantage of cost and operating efficiencies by using the resources available from mine operations to reduce the overall reclamation costs incurred. It enhances environmental protection and shortens the timeframe for achieving the reclamation objectives and goals;

“Project” means the Doris North Project as outlined in the FEIS and supplemental information submitted by Miramar Hope Bay Limited to the Nunavut Impact Review Board (NIRB) as well as the Revised Water Licence Application, Supporting Documents, and Technical Meeting Information Supplement documents submitted to the Nunavut Water Board throughout the regulatory process. It comprises an underground mine, surface processing facilities, surface waste containment, water collection and treatment facilities and other infrastructure;

“Quarry” means the four (4) areas of surface excavation for extracting rock material for construction purposes as identified in section 2.4.15 of the Revised Water Licence Application Support Document, April 2007;

“Quarterly” means, in the context of monitoring frequency, one sampling event occurring every 3 months with a minimum of 90 days between sampling events;

“Reclaim System” means the facility used to pump water from the Tailings Impoundment Area to the plant as described in the Revised Water Licence Application Supporting Document S10j entitled “Water Management Plan” and illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG T-11 dated Mar 2007, SRK Job Number ICM014.008;

“Reclamation” means the process of returning the mine sites and affected areas to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities;

“Receiving Environment” means both the aquatic and terrestrial environments that receive any discharge resulting from the Project;

“Recognized Closed Mine” means a recognized closed mine as defined by section (1) of the *Metal Mining Effluent Regulations* SOR/2002-222 dated 6 June 2002;

“Regulations” means the *Northwest Territories Water Regulations* SOR/93-303 8 June, 1993;

“Sedimentation Pond” means a facility designed to temporarily contain stormwater runoff from the “clean” surfaces of the camp mill pad including the camp, mill and laydown and chemical reagent storage area as described in the Revised Water Licence Application Supporting Document S10j entitled “Water Management Plan” and illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG S-07 and S-08 dated Mar 200, SRK Job Number ICM014.0087;

“Seepage” means any water that drains through or escapes from any structure designed to contain, withhold, divert or retain water or waste. Seepage also includes any flows that

have emerged from the toe, or as a result of runoff from overburden storage areas, waste rock storage facilities, and ore stockpile areas; (note roads, dams, pads, quarries);

“Sewage” means all toilet wastes and greywater;

“Sewage Treatment Plant (STP)” means the Sani-Membrane Bio-Reactor system designed for the treatment of sewage described in the Water Licence Pre-Hearing Technical Meeting Information Supplement Part A - Item 10;

“Shoreline erosion protection” as described in the Revised Water Licence Application Supporting Document S-1 Appendix G;

“South Dam” means the infrastructure designed as a water retaining structure utilizing a central frozen core with a geosynthetic clay liner (GCL) installed against the upstream side of the core, as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG T-05, SRK Job Number ICM014.008;

“Spillway” means an engineered structure to facilitate the emergency release of water or waste from a facility. The spillway elevation is the elevation at which water or waste begins to flow through the spillway structure as illustrated in the Revised Water Licence Application Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWG T-08, SRK Job Number ICM014.008;

“Sump” means a containment facility for the collection of surface drainage;

“Surface Drainage” means all surface waters resulting from the flow over, through or out of an operations area and is collected by means of engineered structures considered under the Storm Water Management Facilities as described in the Revised Water Licence Application Supporting Document S10j entitled “Water Management Plan”;

“Tailings Impoundment Area” means the lake designated as a Tailings Impoundment Area under Schedule 2 of the *Metal Mining Effluent Regulations*. Also referred to in the Revised Water Licence Application as Tail Lake or Tailings Containment Area;

“Tailings Water Management Strategy” means the strategy employed during operations to discharge effluent from the Tailings Impoundment Area to Doris Creek to meet CCME guidelines for parameters of concern to protect freshwater aquatic life in Doris Creek, downstream of the waterfall, as described in the Revised Water Licence Application Supporting Document S10j entitled “Water Management Plan”;

“Talík” means a layer or body of *unfrozen* ground occurring in a permafrost area due to a local anomaly in thermal, hydrological, hydrogeological or hydrochemical condition;

“Temporary Waste Rock Pad” means the engineered facility designed for the temporary deposit of waste rock as illustrated in the Revised Water Licence Application

Supporting Document S4 entitled “Engineering Drawings for Tailings Containment Area and Surface Infrastructure Components” DWGS S-07 and S-08, SRK Job Number ICM014.008;

“**Traditional Knowledge**” means the practical knowledge that has been gathered through the experience of living in close contact with nature and has been passed along or communicated orally, and handed down from generation to generation;

“**Total Metals**” means the suite of metals referred to as MT in Schedule J Table 1 entitled Monitoring Groups. Total metals shall be analyzed on an un-filtered sample;

“**Use**” means use as defined in section 4 of the *Act*;

“**Waste**” means waste as defined in section 4 of the *Act*;

“**Waste Disposal Facility**” means all site infrastructure designed to contain waste on a temporary or permanent basis including the Landfill, Landfarm, Tailings Impoundment Area, site Sumps, Pollution Control Pond, and Sedimentation Pond;

“**Waste Rock**” means all unprocessed rock materials that are or were produced as a result of mining operations and having no current economical value;

“**Waste Water**” means the water generated by site activities or originates on-site that requires treatment or any other water management activity;

“**Water**” means water as defined in section 4 of the *Act*;

“**Water Supply Facility**” means the Fresh Water Intake, the Reclaim System and associated infrastructure;

“**Water Licence Application**” for the purposes of this Licence includes the totality of the NWB and NIRB Public Registries establishes as a result of the filing of the application dated March, 2002. Including Supporting Documents, and Technical Meeting Information Supplement documents; and

“**Weekly**” means, in the context of monitoring frequency, one sampling event occurring every 7 days with a minimum of 5 days between sampling events.

Schedule B - General Conditions

The Annual Report referred to in Part B, Item 3 shall include the following:

1. Summary of monthly monitoring reporting performed in accordance with Part J, Item 21. Summary shall convert daily volumes and tonnages to monthly and annual volumes and tonnages;
2. Summary of the Construction Monitoring Report referred to in Part D, Item 8 and outlined in Schedule D;
3. A Geochemical Monitoring and Waste Rock Storage Assessment that includes the following:
 - a. For the tailings solids:
 - i. All geochemical data appended;
 - ii. All tonnage data appended and locations of disposal;
 - iii. Discussion of geochemical data (static and kinetic, if applicable) with relevant figures and calculation of NNP and NPR; and
 - iv. Geochemical interpretation of data.
 - b. For tailings supernatant:
 - i. All geochemical data appended; and
 - ii. Figures depicting time series of constituent concentrations and loads.
 - c. For waste rock:
 - i. Tonnages of waste rock placed on the Temporary Waste Rock Pile by classification of mineralized and un-mineralized rock.
 - d. For barren bleed stream:
 - i. Raw monthly monitoring results from monitoring station TL-9; and
 - ii. Figures depicting time series for each of the parameters.
 - e. For cyanide leach residue:
 - i. Presentation of results of bi-annual underground inspection of the following:
 1. Location of inspection;
 2. Extent of freezeback of cyanide leach residue;
 3. Seepage from the cyanide leach residue; and
 4. Geochemical and inspection data of any samples taken from seepage from the cyanide leach residue including geochemical discussion of results.
4. A summary of the results of the monthly water balance and water quality model assessments referred to in Part G, Item 31 and any re-calibrations that have been carried out. The report shall include:
 - a. Relevant supporting data;

- b. a comparison of measured water balance and water quality values to predicted values;
 - c. Monitoring and internal modelling results;
 - d. Discharge volume calculations;
 - e. a discussion of any discrepancies in model inputs;
 - f. re-evaluation of Tailings Water Management Strategy and a discussion of any changes to the discharge schedule; and
 - g. Identification of any necessary adaptive management strategies.
- 5. Summary of the Geotechnical Inspection Report referred to in Part J, Item 18 that includes the following:
 - a. All quantities in cubic meters of dike seepage from the North and South Dams pumped back into the Tailings Impoundment Area;
 - b. As-built drawings and a summary of the mitigation works undertaken along the shoreline of the Tailings Impoundment Area in response to erosion, as stipulated in the Shoreline Adaptive Management Plan; and
 - c. All data and information generated from the monitoring of all project geotechnical instrumentation.
- 6. An update on the current capacity of the Tailings Impoundment Area;
- 7. A comparison of the flows (m³/day) at monitoring stations TL-1, TL-2, TL-3, and TL-4;
- 8. Annual review and any revisions submitted in the form of addendums to the Management Plans or Emergency Response and Contingency Plan;
- 9. A list and description of all unauthorized discharges including volumes, spill report line identification number and summaries of follow-up action taken;
- 10. The results of continued aquatic effects baseline data collection, and the results of the Aquatic Effects Monitoring Program in accordance with Part K, Item 4;
- 11. Annual adjustments to reclamation security including any additional security that may be required;
- 12. Annual Incineration stack testing results;
- 13. Annual Landfill Management report;
- 14. A summary of modifications and/or major maintenance work carried out on the Water Supply and the Waste Disposal Facilities, including all associated structures, and an outline of any work anticipated for the next year;

15. A summary of any closure and reclamation work undertaken and an outline of any work anticipated for the next year, including any changes to implementation and scheduling;
16. A summary report describing public consultation and participation with local organizations and the residents of the nearby communities, including a schedule of upcoming community events/information sessions;
17. GPS locations of monitoring stations as confirmed with the Inspector Part J, Item 5;
18. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector; and
19. Any other details on Water use or Waste Disposal requested by the Board by November 1st of the year being reported.

Schedule D - Conditions Applying to Construction

1. The Construction Monitoring Report referred to in Part D, Item 8 shall include the following:
 - a. Blast vibration monitoring for quarrying activity carried out in close proximity to fish bearing waters;
 - b. Monitoring of the performance of erosion protection measures employed by the construction contractor;
 - c. Monitoring for sediment release from construction areas;
 - d. Monitoring for wildlife interactions;
 - e. Monitoring to ensure the protection of all migrating birds and their nesting sites;
 - f. Follow-up geochemical sampling of quarried rock used in construction of the site roads and pads to verify that the rock used is non-acid generating as predicted;
 - g. Monitoring of the waste management practices employed by the contractors and their employees (food waste, hazardous wastes such as engine oil and filters etc, non-hazardous wastes);
 - h. Monitoring of contractor's activity to minimize ground impacts to the tundra (i.e. keeping vehicles off the tundra and on constructed roadways);
 - i. Monitoring of dust generation and use of water by the contractor to manage dust emissions from crushing and construction activity;
 - j. Vegetation monitoring;
 - k. Summary of the Quarry Rock Construction Monitoring Program referred to in Part D, Item 3;
 - l. Summary of the construction of the North and South Dams;
 - i. Laboratory results of subsurface investigations of the dam foundations from undisturbed samples;
 - ii. Details of the geotechnical instrumentation and monitoring plan proposed to monitor the performance of the dams; and
 - iii. Results of subsurface investigations and laboratory analyses must be reviewed by MHL and the dam design modified accordingly under the supervision of a Geotechnical Engineer.
 - m. Summary of the items referred to in Part D, Item 15 with respect to updated construction drawings for the all weather access roads;
 - n. Summary of the Quarry Rock Seepage Monitoring Program referred to in Part D, Item 22; and
 - o. Status of the Construction Summary Report referred to in Part D, Items 27.

The report shall discuss the monitoring results, analysis and any mitigation measures employed as a result of the monitoring, for each of the items listed above.

Schedule G - Conditions Applying to Waste Management and Waste Management Plans

CCME - Water Quality guidelines for total ammonia for the protection of aquatic life (mg·L⁻¹ NH₃)

Temp (°C)	pH							
	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5
0	231	73.0	23.1	7.32	2.33	0.749	0.250	0.042
5	153	48.3	15.3	4.84	1.54	0.502	0.172	0.034
10	102	32.4	10.3	3.26	1.04	0.343	0.121	0.029
15	69.7	22.0	6.98	2.22	0.715	0.239	0.089	0.026
20	48.0	15.2	4.82	1.54	0.499	0.171	0.067	0.024
25	33.5	10.6	3.37	1.08	0.354	0.125	0.053	0.022
30	23.7	7.50	2.39	0.767	0.256	0.094	0.043	0.021

Schedule J - Conditions Applying to General and Aquatics Effects Monitoring

TABLE 1 - MONITORING GROUPS

Group	Analytical Parameters	Measurement Units	Colour Reference
General (G)	Ph	pH units	Red
	TSS	mg/L	
Nutrients (N1)	Total Ammonia-N	mg-N/L	Blue
	Nitrate-N		
	Nitrite-N		
Nutrients (N2)	Orthophosphate-P	mg/L	Orange
	Total Phosphate-P		
Total Metals - Unfiltered (MT)	T-Aluminum	mg/L	Green
	T-Arsenic		
	T-Copper		
	T-Iron		
	T-Nickel		
	T-Lead		
	T-Zinc		
Dissolved Metals - Filtered (MD)	D-Iron	mg/L	Purple
	D-Copper		
	D-Arsenic		
	D-Zinc		
	D-Cadmium		
	D-Nickel		
Biological (B)	Biological Oxygen Demand	mg/L	Yellow
	Fecal Coliforms	CFU/100 mL (colony forming units)	
Hydrocarbons (HC)	Total Oil and Grease	mg/L	Dk. Green
	T-Lead		
	Benzene		
	Toluene		
	Ethyl-Benzene		
Discharge (D)	Flow	m ³ /day	Grey
	Volume	m ³	
	Duration	Day	

GROUP REFERENCE

STATION	TL-1	TL-2	TL-3	TL-4	TL-5	TL-6	TL-7	TL-8	TL-9	TL-10	TL-11	TL-12	ST-1	ST-2	ST-3	ST-4	ST-5	ST-6	ST-7	ST-8	ST-9	ST-10
PARAMETER																						
pH	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Electrical Conductivity											x											
TSS	x	x	x	x	x			x		x		x	x	x	x	x	x	x	x	x	x	x
TDS	x	x	x	x						x												
Cl	x	x	x	x						x				x								
Free CN	x	x	x	x	x			x		x									x			
Total CN	x	x	x	x	x			x	x	x	x		x	x	x				x			
WAD CN					x		x		x		x											
Total Ammonia-N	x	x	x	x	x			x		x	x	x	x	x	x	x			x			
Nitrate-N	x	x	x	x	x			x		x	x	x	x	x					x			
Nitrite-N	x	x	x	x	x			x		x	x	x	x	x					x			
Sulphate					x						x	x	x	x	x							
Orthophosphate-P	x	x	x	x				x		x									x			
Total Phosphate-P	x	x	x	x				x		x									x			
T-Al	x	x	x	x	x	x		x		x			x	x	x				x			
T-Ag	x	x	x	x				x		x									x			
T-As	x	x	x	x	x	x		x		x			x	x	x				x			
T-Ca	x	x	x	x						x									x			
T-Cd	x	x	x	x	x	x		x		x									x			
T-Cr	x	x	x	x	x	x		x		x									x			
T-Cu	x	x	x	x	x	x		x		x			x	x	x				x			
T-Fe	x	x	x	x	x	x		x		x			x	x	x				x			
T-Hg	x	x	x	x	x	x		x		x									x			
T-K	x	x	x	x						x												
T-Mo	x	x	x	x	x	x		x		x									x			
T-Mg	x	x	x	x						x												
T-Na	x	x	x	x						x												
T-Ni	x	x	x	x	x	x		x		x			x	x	x				x			
T-Pb	x	x	x	x	x	x		x		x			x	x	x	x	x	x	x			
T-Se	x	x	x	x	x	x		x		x									x			
T-Zn	x	x	x	x	x	x		x		x			x	x	x				x			

STATION	TL-1	TL-2	TL-3	TL-4	TL-5	TL-6	TL-7	TL-8	TL-9	TL-10	TL-11	TL-12	ST-1	ST-2	ST-3	ST-4	ST-5	ST-6	ST-7	ST-8	ST-9	ST-10
PARAMETER																						
T-Tl	x	x	x	x				x		x									x			
T-Radium 226				x																		
Dissolved Oxygen & Redox Potential	x									x												
Acute Lethality	x			x																		
Flow	x	x	x	x	x			x				x	x	x	x	x	x	x	x	x	x	
Volume	x	x	x	x	x			x				x	x	x	x	x	x	x	x	x	x	
Water Level	x																					
Total Metals by ICP-MS*					x							x		x								
Total Metals ICP-MS including Sulphur						x	x															
Trace Metals by ICP-MS											x											
Alkalinity											x			x								
Acidity											x											
Dissolved Fe									x													
D-Cu									x													
D-As									x													
D-Zn									x													
D-Cd									x													
D-Ni									x													
BOD ₅				x															x	x	x	
Fecal Coliforms				x															x	x	x	
Cyanate					x		x															
Thiocyanate					x		x															
Moisture content							x															
Total Oil and Grease			x										x	x	x	x	x	x	x	x	x	
Benzene																x	x	x				
Toluene																x	x	x				
Ethyl-Benzene																x	x	x				
Tonnage						x	x															

STATION	TL-1	TL-2	TL-3	TL-4	TL-5	TL-6	TL-7	TL-8	TL-9	TL-10	TL-11	TL-12	ST-1	ST-2	ST-3	ST-4	ST-5	ST-6	ST-7	ST-8	ST-9	ST-10
PARAMETER																						
Chemical Oxygen Demand									x													
Total Inorganic Carbon						x	x															

* (definition: metals consistent with baseline data previously collected and any other metals of current interest)

TABLE 2 – MONITORING REQUIREMENTS

Station	Description	Phase	Monitoring Parameters	Frequency
<u>TL-1</u>	<u>TIA at the Reclaim Pump Barge - depth 1.5m below surface</u>	<u>Operation, Closure, Post Closure (for up to nine (9) years after cessation of mining)</u>	<u>G, N1, N2, MT and TDS, Cl, Free CN, Total CN, T-Ag, T-Ca, T-Cd, T-Cr, T-Hg, T-K, T-Mo, T-Mg, T-Na, T-Se, T-Tl</u>	<u>Every second day for two (2) weeks prior to discharge and for two (2) weeks after discharge commences, then reducing to once per week during remainder of annual discharge period</u>
			<u>Dissolved Oxygen and Redox Potential</u>	<u>Every second month</u>
			<u>Acute Lethality</u>	<u>Once prior to discharge</u>
			<u>D</u>	<u>Daily during periods of discharge</u>
<u>TL-2</u>	<u>Doris Outflow Creek - upstream (at the flow monitoring station adjacent to the bridge)</u>	<u>Operation, Closure, Post Closure (for up to nine (9) years after cessation of mining)</u>	<u>G, N1, N2, MT and TDS, Cl, Free CN, Total CN, T-Ag, T-Ca, T-Cd, T-Cr, T-Hg, T-K, T-Mo, T-Mg, T-Na, T-Se, T-Tl,</u>	<u>Every second day for two (2) weeks prior to discharge and for two (2) weeks after discharge commences, then reducing to once per week during remainder of annual discharge period</u>
			<u>D</u>	<u>Daily during periods of discharge from Tail Lake</u>
<u>TL-3</u>	<u>Doris Outflow Creek (~80m downstream of the base of the waterfall)</u>	<u>Operation, Closure, Post Closure (for up to nine (9) years after cessation of mining)</u>	<u>G, N1, N2, MT and TDS, Cl, Free CN, Total CN, T-Ag, T-Ca, T-Cd, T-Cr, T-Hg, T-K, T-Mo, T-Mg, T-Na, T-Se, T-Tl, Total Oil and Grease</u>	<u>Every second day for two (2) weeks prior to discharge and for two (2) weeks after discharge commences, then reducing to once per week during remainder of annual discharge period</u>
			<u>D</u>	<u>Daily during periods of discharge from Tail Lake</u>
<u>TL-4</u>	<u>TIA Discharge End-of-Pipe (taken at a valve at the discharge end of the transfer pump pipeline)</u>	<u>Operation, Closure, Post Closure (for up to nine (9) years after cessation of mining)</u>	<u>G, N1, N2, MT, and TDS, Cl, Free CN, Total CN, T-Ag, T-Ca, T-Cd, T-Cr, T-Hg, T-K, T-Mo, T-Mg, T-Na, T-Se, T-Tl, T-Radium 226</u>	<u>Weekly during periods of discharge</u>
			<u>Acute Lethality</u>	<u>Monthly during discharge</u>
			<u>B</u>	<u>Monthly</u>
			<u>D</u>	<u>Daily during periods of discharge from Tail Lake</u>
<u>TL-5</u>	<u>Combined Tailings Discharged into TIA (Water Component) taken from a valve in the mill at the discharge end of the</u>	<u>Operations</u>	<u>G, N1, MT, and Free CN, Total CN, WAD CN, Sulphate, T-Cd, T-Cr, T-Hg, T-Mo, T-Se, and Total Metals by ICP-MS</u>	<u>Daily initially, reduced to weekly after 3 months of operation</u>
			<u>Cyanate and Thiocyanate</u>	<u>Quarterly</u>

Station	Description	Phase	Monitoring Parameters	Frequency
	<u>mill tailings pumps</u>		<u>D</u>	<u>Daily initially, reduced to weekly after 3 months of operation</u>
TL-6	<u>Combined Tailings Discharged into TIA (Solid Component) taken from a valve in the mill at the discharge end of the mill tailings pumps</u>	<u>Operations</u>	<u>Tonnage of dry tailings solids</u>	<u>Monthly during periods of discharge</u>
			<u>MT and T-Cd, T-Cr, T-Hg, T-Mo, T-Se,</u>	<u>Sampled on a weekly basis with analyses carried out monthly on a composite sample of the TL-6 weekly samples</u>
			<u>Total Inorganic Carbon and Total Metals by ICP-MS (must include Sulphur)</u>	
TL-7	<u>Filtered Cyanide Leach Residue sent underground as backfill</u>	<u>Operations</u>	<u>Dry tonnage of CN leach residue sent underground, WAD CN, Total Inorganic Carbon, Total Metals by ICP-MS (including Sulphur), Moisture content of backfill trucked underground,</u>	<u>Monthly</u>
			<u>Cyanate and Thiocyanate</u>	<u>Quarterly</u>
TL-8	<u>Reclaim water pumped from TIA to Mill Process water tank taken from a valve at the discharge end of the reclaim water pump</u>	<u>Operation</u>	<u>G, N1, N2, MT and Free CN, Total CN, T-Ag, T-Cd, T-Cr, T-Hg, T-Mo, T-Se, T-Tl,</u>	<u>Monthly</u>
			<u>D</u>	<u>Daily during periods of pumping</u>
TL-9	<u>Barren Bleed Solution sent to tailings taken from a sampling valve within the mill</u>	<u>Operations</u>	<u>MD and pH, Total and WAD CN, Chemical Oxygen Demand,</u>	<u>Monthly</u>
TL-10	<u>Water Column in deepest portion of Tail Lake and at a location away from the TIA Reclaim water floating pump house, sampled at surface, mid-depth and near bottom.</u>	<u>Operation, Closure, Post Closure (for up to nine (9) years after cessation of mining)</u>	<u>G, N1, N2, MT and TDS, Cl, Free CN, Total CN, T- Ag, T-Ca, T-Cd, T-Cr, T-Hg, T-K, T-Mo, T-Mg, T-Na, T-Se, T-Tl, Dissolved Oxygen and Redox Potential</u>	<u>Monthly during discharge starting two (2) weeks prior to start of discharge season</u>
TL-11	<u>Seepage from underground backfilled stopes</u>	<u>Operations</u>	<u>Visual inspection for seepage. If seepage present parameters to be monitored include N1 and pH, EC, Trace metals by ICP-MS, Alkalinity, Acidity, Sulphate, Total and WAD CN,</u>	<u>Survey Twice annually</u>

Station	Description	Phase	Monitoring Parameters	Frequency
TL-12	<u>Underground Minewater - water pumped from the underground mine into the Mill tailings pump box</u>	Operations	<u>G, N1 and Sulphate and Total Metals by ICP-MS</u>	<u>Monthly</u>
			<u>D</u>	<u>Monthly during pumping</u>
ST-1	<u>Discharge from Sedimentation Pond taken at a depth of ~0.25 m</u>	<u>Construction, Operation, Closure</u>	<u>G, N1, MT and Total Sulphate, Total CN, Total Oil and Grease.</u>	Once before any discharge, daily when discharging onto the tundra
			<u>D</u>	<u>Daily during periods of discharge</u>
ST-2	<u>Discharge from Pollution Control Pond taken at a depth of ~0.25m</u>	<u>Construction, Operation, Closure</u>	<u>G, N1, MT and Total Sulphate, Total CN, Total Oil and Grease, Alkalinity, Chloride, and Total Metals by ICP-MS</u>	<u>Monthly during open water season</u>
			<u>D</u>	<u>Daily during periods of discharge</u>
ST-3	Discharge from Non-hazardous Landfill pollution control sump	Construction, Operation, Closure	<u>G, MT and Total Ammonia-N, Total Sulphate, Total CN, Total Oil and Grease,</u>	Once before any discharge, daily when discharging onto the tundra
			<u>D</u>	Daily during periods of discharge
ST-4	Discharge from Landfarm sump	Construction, Operation, Closure	<u>G, HC</u>	Once before any discharge, daily when discharging onto the tundra
			<u>D</u>	Daily during periods of discharge
ST-5	Discharge from the Plant Site Fuel Storage and Containment Area Sump	<u>Construction, Operation, Closure</u>	<u>G, HC</u>	<u>Once before any discharge, daily when discharging onto the tundra</u>
			<u>D</u>	<u>Daily during periods of discharge</u>
ST-6	Discharge from the Roberts Bay Fuel Storage and Containment Area Sump	Construction, Operation, Closure	<u>G, HC</u>	Once before any discharge, daily when discharging onto the tundra
			<u>D</u>	Daily during periods of discharge
ST-7	Freshwater pumped from Doris Lake taken from a valve on the discharge end of the freshwater pump	Construction, Operation, Closure	<u>G, N1, N2, MT and Free CN, Total CN, T-Ag, T-Cd, T-Cr, T-Hg, T-Mo, T-Se, T-Tl, and Total Oil and Grease</u>	Monthly
			<u>B</u>	
			<u>D</u>	Monthly during periods of pumping

Station	Description	Phase	Monitoring Parameters	Frequency
ST-8	Discharge from Sewage Treatment Plant bio-membrane	Construction, Operation, Closure	G, B, and Total Oil and Grease	Monthly
			Location of discharge	Monthly during periods of discharge
			D	Monthly during periods of discharge
ST-9	Runoff from Sewage Treatment Plant discharge - downstream of sewage treatment plant discharge point and just prior to flow entering Doris Lake	Construction	G, B, and Total Oil and Grease	Monthly
ST-10	Site Runoff from Sediment Controls	Construction, Operations, Closure	TSS	Daily during periods of discharge
<u>Monitoring Strip #1</u>	<u>Shoreline (location provided in S4 DWG T-14 dated March 2007)</u>	<u>Construction, Operations, Closure</u>	<u>Erosion via bathymetric survey of the underwater section of the monitoring strip down to the original Tailings Impoundment Area water level of 28.3 m</u>	<u>Annually</u>
<u>Monitoring Strip #2</u>	<u>Shoreline (location provided in S4 DWG T-14 dated March 2007)</u>	<u>Construction, Operations, Closure</u>	<u>Erosion via bathymetric survey of the underwater section of the monitoring strip down to the original Tailings Impoundment Area water level of 28.3 m</u>	<u>Annually</u>
<u>Monitoring Strip #3</u>	<u>Shoreline (location provided in S4 DWG T-14 dated March 2007)</u>	<u>Construction, Operations, Closure</u>	<u>Erosion via bathymetric survey of the underwater section of the monitoring strip down to the original Tailings Impoundment Area water level of 28.3 m</u>	<u>Annually</u>
<u>Monitoring Strip #4</u>	<u>Shoreline (location provided in S4 DWG T-14 dated March 2007)</u>	<u>Construction, Operations, Closure</u>	<u>Erosion via bathymetric survey of the underwater section of the monitoring strip down to the original Tailings Impoundment Area water level of 28.3 m</u>	<u>Annually</u>
<u>Monitoring Strip #5</u>	<u>Shoreline (location provided in S4 DWG T-14 dated March 2007)</u>	<u>Construction, Operations, Closure</u>	<u>Erosion via bathymetric survey of the underwater section of the monitoring strip down to the original Tailings Impoundment Area water level of 28.3 m</u>	<u>Annually</u>
<u>Monitoring Strip #6</u>	<u>Shoreline (location provided in S4 DWG T-14 dated March 2007)</u>	<u>Construction, Operations, Closure</u>	<u>Erosion via bathymetric survey of the underwater section of the monitoring strip down to the original Tailings Impoundment Area water level of 28.3 m</u>	<u>Annually</u>

TABLE 3 – THERMAL MONITORING

Station	Location	Location Reference	Phase	Monitoring Parameters	Frequency
T1	Jetty	SD4 - DWG J-01	Operation	Temperature	A
T2	Jetty	SD4 - DWG J-01	Operation	Temperature	A
T4	Beach Laydown	SD4 - DWG S-01	Operation	Temperature	A
T5	Fuel Storage and Containment Facility at Robert's Bay		Operation	Temperature	A
T7	Airstrip	SD4 - DWG S-03	Operation	Temperature	A
T8	Airstrip	SD4 - DWG S-03	Operation	Temperature	A
T9	Airstrip	SD4 - DWG S-03	Operation	Temperature	A
T1	Bridge Abutment	SD4 - DWG S-12	Operation	Temperature	A
T2	Bridge Abutment	SD4 - DWG S-12	Operation	Temperature	A
DOR-1	Camp	to be confirmed	Operation	Temperature	A
DOR-2	Camp	to be confirmed	Operation	Temperature	A
DOR-3	Pollution Control Pond	to be confirmed	Operation	Temperature	A
<u>DOR-4</u>	<u>Sedimentation Pond</u>	<u>to be confirmed</u>	<u>Operation</u>	<u>Temperature</u>	<u>A</u>
<u>DOR-5</u>	<u>Float Plane Dock Laydown Area</u>	<u>to be confirmed</u>	<u>Operation</u>	<u>Temperature</u>	A
DOR-6	Road	to be confirmed	Operation	Temperature	A
DOR-7	Road	to be confirmed	Operation	Temperature	A
DOR-8	Road	to be confirmed	Operation	Temperature	A
DOR-9	Road	to be confirmed	Operation	Temperature	A
DOR-10	Road	to be confirmed	Operation	Temperature	A
SRK-53	Shoreline	to be confirmed	Operation, Closure	Temperature	B
SRK-54	Shoreline	to be confirmed	Operation, Closure	Temperature	B
SRK-55	Shoreline	to be confirmed	Operation, Closure	Temperature	B
SRK-56	Shoreline	to be confirmed	Operation, Closure	Temperature	B
SRK-57	Shoreline	to be confirmed	Operation, Closure	Temperature	B
SRK-58	Shoreline	to be confirmed	Operation, Closure	Temperature	B
<u>NI1 - NI28</u>	<u>North Dam</u>	<u>SD4 - DWG T-09</u>	<u>Operation, Closure</u>	<u>Temperature</u>	<u>C</u>
<u>SI2 -SI22</u>	<u>South Dam</u>	<u>SD4 - DWG T-10</u>	<u>Operation, Closure</u>	<u>Temperature</u>	<u>C</u>

A - Monthly, increasing if warming trend is observed

B – Monthly

C - Monthly readings taken manually; data loggers installed to collect continuous data at key locations. Frequency maintained until dam reaches pseudo steady state conditions. The frequency may then be reduced but will have to coincide with the peaks of the annual climatic cycles

STATUS OF COMMITMENTS UNDER THE NIRB CERTIFICATE RELATING TO ISSUES OF WATER USE, WATER QUALITY AND WASTE CONTROL

The following is a summary of the requirements in the NIRB Project Certificate relating to issues of water use, water quality and waste control and the status of those requirements as requested by the Water Board.

Project Certificate Numbered Commitments	Status
Tail Lake Water Quality and Water Management Strategy	
8 through 18	<p><u>Requirement 8</u>: HBML is in compliance with this requirement to install a weather station at the mine site. HBML has two meteorological stations operating on the Hope Bay Belt that meet this requirement – one at Doris Camp and the other at Boston Camp.</p> <p><u>Requirements 9-10</u>: These requirements are not applicable to HBML’s current operations because HBML is not using Tail Lake as a tailings impoundment area at this time. The Requirements are each conditioned upon “commencement of operation”.</p> <p><u>Requirement 11</u>: HBML is in compliance with this requirement to ensure that the monitoring information collected under the terms of the Project Certificate contain the listed information.</p> <p><u>Requirement 12</u>: HBML is in compliance with this requirement to maintain and archive the results of its monitoring, data and analysis for the life of the Project. The information will also be incorporated into the new project information and monitoring data.</p> <p><u>Requirement 13</u>: HBML is in compliance with this requirement to collect additional water quality data and incorporate the data into its model submitted to the NWB. The revised water quality model was submitted to the NWB as part of the water license application. HBML is now reviewing and will soon submit to the DFO and NIRB certain Doris North Aquatic Study Reports for 2006, 2007 and 2008 This will complete</p>

	<p>a commitment that was not complete at the time HBML assumed control of the Project.</p> <p><u>Requirement 14:</u> HBML is in compliance with this requirement to collect precipitation, evaporation and run-off data to submit to the NWB. This data was provided as part of the Type A Water License application submitted to the NWB.</p> <p><u>Requirement 15:</u> HBML is in compliance with this requirement to not allow the water discharged into Doris Creek to exceed the criteria set by the NWB. Because HBML has deferred the Doris North Project and its operations only involve advanced exploration, there is no water being discharged from the proposed tailings facility at Tail Lake to Doris Creek.</p> <p><u>Requirement 16:</u> HBML's current operations are in compliance with this requirement to prevent any Tail Lake discharge in violation of the Project Certificate or other regulations as such may have a negative effect on wildlife, fisheries aquatics and human health. Because HBML has deferred the Doris North Project and its operations only involve advanced exploration, there is no water being discharged from the proposed tailings facility at Tail Lake to Doris Creek.</p> <p><u>Requirement 17:</u> HBML is in compliance with this requirement.</p> <p><u>Requirement 18:</u> HBML is in compliance with this requirement to submit to the NWB a program detailing the methodology for testing quarried rock for acid generation and metal leaching potential. HBML met this requirement as part of its Type A Water Licence application and is continuing to perform these analyses for new projects.</p>
Appendix A relating to Water Quality	See Appendix C, Water Quality – TSS and Runoff below.
Appendix B	
Section 4.0 of the Project Certificate requires that HBML comply with or obtain all applicable licences, orders, permits and	HBML is complying with all applicable licences, orders, permits and directions in relation to its current activities.

directions identified in Appendix B and C.	
Appendix C - Commitments relating to water use, water quality and waste disposal	
<i>Air Quality</i>	
5. Apply water to roadways to reduce dust	In compliance
8. Submerge release of Tailings Deposition	Not applicable to HBML's current operations
<i>Water Quality -TSS</i>	
1. Install silk curtains in localized areas of permafrost degradation	Not applicable to HBML's current operations; commitment relates to TIA
2. Apply geo-textile materials or rip rap to areas where slumping is observed to stabilize the shoreline	Not applicable to HBML's current operations; commitment relates to TIA
<i>Water Quality - Runoff</i>	
3. Identifying and using quarry rock that has a low acid generation and metal leaching potential	HBML is identifying and using quarry rock that has a low acid generation and metal leaching potential.
4. Implementing industry best practice for explosive use, limiting residual nitrite and nitrite present in quarried and waste rock	HBML has implemented industry best practice methods for explosives use.
5. Completing winter construction of the roads and building pads which will mitigate the risk of sediment release during construction.	HBML has followed commitments respecting construction of roads and building pads to mitigate the risk of sediment release during construction.

6. Implementing industry best practice for sediment control and storm water management during and after construction to collect surface run-off, and discharging runoff to the tailings containment area, where the sediments would have the opportunity to settle out.	HBML is implementing industry best practices for sediment control and storm water management. Currently, HBML has not established a tailings containment area.
<i>Permafrost</i>	
1. Additional thermistors will be installed during construction.	Not Applicable to HBML's current operations.
2. Reading of thermistors will be included in routine site monitoring programs to ensure maintenance of permafrost integrity	Not Applicable to HBML's current operations.
<i>Vegetation</i>	
3. Implement dust suppression on airstrip and roads during snow/ice free period	In compliance
4. Apply water to roadways to reduce dust	In compliance
5. Install dust covers and sonic sprays to reduce dust	Not Applicable to HBML's current operations.
7. Re-contour closure landforms and placing materials so that final topography and site conditions are similar to other sites of same type in region	Not Applicable to HBML's current operations.
8. Allow and promote areas to revegetate	Not Applicable to HBML's current operations.

during operations and throughout mine life	
9. Use adaptive management approaches to ensure advances in revegetation research included in final closure planning	Not Applicable to HBML's current operations.
<i>Grizzly Bear</i>	
2-7, 10. Educate and reinforce proper waste management practices with site workers and visitors. Implement appropriate waste management protocols, including burning all food wastes in oilfield incinerator. Eliminate attractants (e.g. food waste, oil products) at landfill site. Fence landfill area appropriately. Burn waste oil in waste-oil furnaces or take off-site for recycling. On-going review of efficacy of waste management program and adaptive improvement.	In compliance
<i>Health Services</i>	
3. Have emergency response and contingency plans in place for possible medical evacuation	In compliance
<i>Fish</i>	
5. Design all water intake structures to meet DFO Freshwater Intake End-Of-Pipe Fish Screen Guidelines	In compliance
6. Install culverts to provide cross drainage	In compliance

along roadways. After mine closure, breach culverts and re-establish natural drainage and flow	
7. Construct single span bridge crossing Doris Outflow at north end of Doris Lake in winter	Not Applicable to HBML's current operations.
8. Follow federal blasting guidelines of Wright and Hopky (1998) and DFO guidelines for blasting in the Arctic	In compliance
10. Monitor water quality in Tail Lake prior to release, and decant water released to Doris Outflow to meet requirements of federal Metal Mining Effluent Regulations (MMER)	Not Applicable to HBML's current operations.
11. Monitor water quality at discharge release into Doris Outflow and downstream of the waterfall to meet requirements of Canadian Council of Ministers of the Environment (CCME)	Not Applicable to HBML's current operations.
<i>Additional Commitments</i>	
<u>DFO</u>	
1. Miramar will commit to place as much tailings as reasonable underground as backfill and conduct a mine and process engineering study to develop protocols for prioritizing material types and quantities to be placed underground. Miramar will give considerable weight to minimize impact of tailings on fish habitat	Not Applicable to HBML's current operations.

2. Miramar will monitor stage and discharge in Doris Outflow upstream and downstream of decant discharge point to provide accurate impact predictions on fish habitat downstream	Not Applicable to HBML's current operations.
7. Miramar commits to prepare a single comprehensive summary of tailings alternatives assessment, in consultation with DFO and EC, to use in regulatory phase for scheduling under MMER	In compliance
<u>EC</u>	
8. Miramar has committed to monitoring of operational permafrost thermistors in vicinity of North and South dams to ensure seepage conditions meet design criteria. Monitoring measures will be further defined in regulatory phase.	Not Applicable to HBML's current operations.
9. Miramar will update modelling of water quality and water management prior to start-up as further defined in regulatory phase, and under Water Licence	Not Applicable to HBML's current operations.
<u>EC-INAC</u>	
21. Miramar will commit to review internal aspects of water quality model relating to source release rates prior to regulatory phase and correct as necessary	In compliance

<u>GN</u>	
22. Miramar will update Hazardous Materials Management Plan as part of water license application to clarify issues in design and operation of landfarm to remediate any hydrocarbon contaminated soils, treatment of snowmelt and precipitation runoff collected in diesel fuel tank farm containment berm to remove oil prior to release	In compliance
23. MHLB will consult with GN DOE and EC to determine most appropriate methods and measured variables for monitoring during construction, operation and closure before final submission of WMMP	Ongoing Compliance
<u>INAC</u>	
29. Miramar commits to do all necessary site studies, thermal modelling and sensitivity analyses to ensure dam safety and stability, during regulatory phase and prior to construction	Not Applicable to HBML's current operations. There are no dams.
30. Miramar commits to develop a detailed Water Quality Data Analysis and Management Plan including procedures for: initial start up and ongoing calibration of analytical equipment; collection, preservation, storage and handling of samples; analytical procedures (e.g. standard	Not Applicable to HBML's current operations.

methods), checking for outliers; internal reporting and accountability for analytical data and follow-up actions	
31. Miramar commits to develop adaptive management plan to prevent and mitigate shoreline erosion as part of regulatory (water license) process	In compliance
32. When Doris North Mine is operating Miramar will initiate additional kinetic and static test work to further characterize acid generating – metal leaching potential of mine rock and tailings to provide additional data for adaptive management should conditions change or mine life be extended	Not Applicable to HBML's current operations.
<u>KIA</u>	
34. Miramar will commit to revisit TSS calculations and reassess as necessary	Ongoing Compliance
35. Miramar will commit that spill containment measures will be put in place to prevent ammonium nitrate spilt during handling being lost to groundwater or surface water runoff	Not Applicable to HBML's current operations.
36. Miramar will consider doing additional shoreline characterization of shoreline materials around Tail Lake, including possible drilling, test pitting, observations or geophysical testing necessary to complete	Not Applicable to HBML's current operations.

final detailed designs	
37. Miramar is committed to do all necessary and reasonable monitoring after closure to ensure compliance to regulatory permits	Not Applicable to HBML's current operations.
38. Miramar will consider doing additional dam foundation characterization, including drilling, test pitting, observations or geophysical testing to complete final detailed designs	Not Applicable to HBML's current operations.

Appendix C

Letter from HBML to INAC dated August 11, 2008



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Melissa Joy
Water Resources Officer
INAC
Box 278
Kugluktuk, NU X0B 0E0
Canada

1 August 2008

Dear Ms. Joy;

Re: Proposed Plan of Action to address INAC concerns raised during July 2008 inspection of the Hope Bay belt

During INAC's Water Licence compliance inspection of the Hope Bay belt in July of this year, you raised four items that required the immediate attention and corrective action of Hope Bay Mining Ltd. (HBML). This letter is to update you on the steps we have initiated on these items since your inspection. The corrective actions include the following:

1. Discontinue use of fuel bladder at Roberts Bay as a transfer point for fuel moving from barges to the distribution system
 - The existing bladder was drained of fuel and replaced with a 75,000 l self-bermed tank. This tank was placed in the existing berm to insure secondary containment for tank plumbing.
 - The bladder which is now 95+% empty is being stored inside the berm at Roberts Bay until final draining is accomplished and the unit is packed for removal by barge from the Hope Bay.
2. Major Drilling - Patch Lake Drill Shop
 - HBML will submit to the Nunavut Water Board an amendment to Water Licence NWB 2BE-HOP712 to cover activities at the Major Drilling Patch Lake Shop that are not already covered in that Licence, particularly planning related to spill contingencies, abandonment and reclamation, and bulk fuel storage. We will send that Amendment by October 31, 2008. The licence amendment will include a quota for water use, management of human waste, and management of waste not covered under the existing licence sections covering Spill Contingency Plans, Abandonment (Closure) and Reclamation.
 - HBML has decided to close the Patch Lake Drill Shop camp by December 31, 2010. As such the company will revise the A&R Plan in Water Licence 2BE-HOP712 by January 31, 2009.
 - The company has contracted SRK Engineering to undertake a Phase 2 Environmental Assessment of the Major Patch Lake Shop during the summer of 2008 in order to determine the nature of environmental

impacts that maybe associated with the shop, lay down areas and tank farm.

2. Rutting of Winter Road from Windy Lake to Narrtuk
 - HBML has engaged SRK Engineering to perform a geotechnical evaluation of the rutting of the Windy lake/Narrtuk Winter Road. The company is awaiting a plan from our external expert on the best way to repair the ruts and prevent uncontrolled water in those ruts. This work will be undertaken during the winter of 2008 / 2009. It will be completed by May 15, 2008.
3. Location of the Boston Sewage Treatment Plant (STP)
 - The existing Boston STP will be moved as part of a plan to up-grade the plant in late summer or early fall of 2008. A plan is currently being developed by Sanitherm for the plant move and up-grade. We expect this work to be complete by December 1, 2008.

I hope this answers your questions raised during the inspection. Please feel free to contact Chris Hanks at Chris.Hanks@Newmont.com or 720-917-4489.

Thank you for your consideration of our proposal plans.

Sincerely yours;

Chris Hanks
Director, Environment and Social Responsibility
Hope Bay Mining Ltd., an affiliate of
Newmont Mining Corporation