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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

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**File: 2BE-HOP0712/Amend**

August 24, 2010

Chris Hanks  
Director, Environment and Social Responsibility  
Hope Bay Mining Ltd.  
Suite 300, 889 Harbourside Drive  
North Vancouver, BC  
V7P 3S1

Email: [chris.hanks@newmont.com](mailto:chris.hanks@newmont.com)

**RE: 2BE-HOP0712 Type “B” – Amendment No.4**

Dear Mr. Hanks:

Please find attached, Amendment No.4 to Licence No. 2BE-HOP0712 Type “B” issued to Hope Bay Mining Ltd. by the Nunavut Water Board (NWB) (**Motion 2010-13-L14**) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The terms and conditions of the original Licence related to water use and waste disposal remain an integral part of this approval.

The NWB recommends that the Licensee consult the comments received by interested persons<sup>1</sup>. This information is attached for your consideration.

Sincerely,

Thomas Kabloona  
Nunavut Water Board  
Chair

TK/tla/pb

Enclosure: Licence No. **2BE-HOP0712 - Amendment No.4**  
Comments – KIA, EC, INAC

Cc: Distribution – Kitikmeot

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<sup>1</sup> Kitikmeot Inuit Association dated July 6, 2010; Environment Canada dated July 19, 2010; Indian and Northern Affairs Canada dated July 23, 2010.

## LICENCE AMENDMENT No. 4

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<b>Licensee:</b>	<b>HOPE BAY MINING LTD</b>
<b>Licence No:</b>	<b>2BE-HOP0712      Type "B"</b>
<b>Licence Issued:</b>	<b>May 20, 2007</b>
<b>Amendment No.1 Issued</b>	<b>July 2, 2008</b>
<b>Amendment No.2 Issued</b>	<b>May 4, 2009</b>
<b>Amendment No.3 Issued:</b>	<b>July 20, 2010</b>
<b>Amendment No.4 Issued:</b>	<b>August 24, 2010</b>
<b>Licence Expiry:</b>	<b>June 30, 2012</b>

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Pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and the Nunavut Surface Rights Tribunal Act*, with respect to an application for amendment dated April 21, 2010, made by Hope Bay Mining Ltd (HBML or Licensee), the Nunavut Water Board (NWB) hereby grants the following Licence amendment.

The Licence issued May 20, 2007 with an expiry date of June 30, 2012 shall be amended to include the following terms and conditions, with respect to use of water and deposit of waste, to allow for the discharge of water from three (3) quarries (A,B & D) associated with their Hope Bay Regional Exploration Project. The quarries have been used for the construction of an all-weather access road that connects the Doris and Windy camps. All water entering the quarry as a result of precipitation or snow melt is retained within the quarry boundaries by ensuring that the quarry floors are sloped toward a natural low area of the quarry floor. If required, quarry sumps will be used to collect the water and settle out suspended solids.

HBML confirmed that quarries A, B and D are not included in the Type A water licence it holds for the Doris North mine site (2AM-DOH0713), however HBML committed to adhering to applicable quarry conditions of that license as well as with the existing terms of 2BE-HOP0712. HBML also submitted a *Hope Bay Project Quarry A, B & D Management and Monitoring Plan* dated April 2010, as supporting information for the amendment application.

The NWB received comments on the amendment application from the Kitikmeot Inuit Association (KIA), Indian and Northern Affairs Canada (INAC) and Environment Canada (EC). KIA had no concerns. Both INAC and EC found the *Hope Bay Project Quarry A, B & D Management and Monitoring Plan* to be acceptable.

In its submission INAC noted HBML's proposal to adopt licence conditions applicable to construction and quarry operations from HBML's Doris North Project's Type A licence (2AM-DOH-0713). Conditions identified by HBML as being relevant are Part D: Conditions Applying to Construction, Items 9, 9b, 10, 21, and 22 and Schedule D, Conditions Applying to Construction, Items a, k, and n. INAC agreed with the application of these conditions through

the licence amendment and suggested that conditions from Schedule D, Items b, c, and f also be added.

In a letter to the NWB dated June 3, 2010 HBML clarified that the scope of the amendment application was limited to the request to permit discharge from the quarries and requested approval of the *Hope Bay Project Quarry A, B & D Management and Monitoring Plan* dated April 2010. INAC was in agreement with the discharge criteria proposed by HBML for water that collects within quarries. EC reminded parties of the mandatory requirement to meet the *Fisheries Act*, sec 36(3)<sup>2</sup>.

The NWB notes that HBML has committed to an annual inspection of the quarries and:

In the event that the inspection identifies ponded water within the mined out quarry, field measurement of the pH, EC and Eh of both the pond and a reference site will be conducted and a sample collected preserved in the appropriate manner and submitted to an accredited laboratory for pH, Total Suspended Solids (TSS), Total Sulphate, Total Ammonia, Nitrate, Alkalinity, ICP Metals analysis. (*Hope Bay Project Quarry A, B & D Management and Monitoring Plan* dated April 2010 Pg 15).

A related issue as noted by INAC concerns HBML's proposal to manage ponded water that does not meet the criteria. In that case, HBML suggested that it would remove the water by vacuum truck and use it to water down the all-weather road. However, INAC recommended that if quarry water does not meet the discharge criteria HBML investigate the cause of the noted exceedance and report any findings to the Board along with planned mitigation measures prior to any discharge.

In addition to the parameters proposed by HBML and for consistency with the Type A Licence issued to HBML for the Doris North project, the NWB has included regulated discharge limits for additional parameters consistent with the Doris North Sedimentation Pond and Pollution Control Sump located in Quarry 2 at Doris North. The NWB finds this is an appropriate measure given the commitment made by HBML, noted above, to sample for key parameters. The additional parameters will also provide a greater level of assurance the mandatory requirements with respect to deleterious substances under the *Fisheries Act*, as noted by EC, are being met.

Having considered the amendment application and comments received, Licence 2BE-HOP0712 shall be amended as follows:

**PART D:      CONDITIONS APPLYING TO WASTE DISPOSAL**

Amend Item 16:

The Licensee shall provide at least fifteen (15) days written notice to the Inspector prior to any planned discharges from the water collection point (sump) in the Landfarm, the

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<sup>2</sup> Sec.36(3) Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

Bulk Fuel Storage Facilities, and Quarries A, B & D. This notice shall include the volume proposed for discharge and location.

Insert Item 22:

All drainage water being discharged from quarries A, B & D at monitoring stations HOP-7a,b & d respectively, shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration	Maximum Concentration in any Grab Sample
pH	6.0 to 9.0	9.0
Electrical conductivity	500 µS/cm	500 µS/cm
Total Ammonia	2 mg/L	4 mg/L
Total Suspended Solids	15 mg/L	30 mg/L
Oil and Grease	5 mg/L and no visible sheen	10 mg/L and no visible sheen
Total Aluminum	1.0 mg/L	2.0 mg/L
Total Arsenic	0.05 mg/L	0.10 mg/L
Total Copper	0.02 mg/L	0.04 mg/L
Total Iron	0.30 mg/L	0.60 mg/L
Total Lead	0.01 mg/L	0.02 mg/L
Total Nickel	0.05 mg/L	0.10 mg/L
Total Zinc	0.01 mg/L	0.02 mg/L

Insert Item 23

The Licensee shall establish and confirm compliance with Effluent quality limits of Part D, Item 22 prior to discharge.

Insert Item 24

In the event that water planned for discharge from quarries A, B or D exceeds the limits provided in Part D, Item 22, the Licensee shall investigate the cause of the noted exceedance and report any findings, along with planned mitigation measures to meet these limits, prior to any discharge.

Insert Item 25

The Licensee shall submit to the Board for approval, within sixty (60) days of issuance of amendment No. 4, a revised *Hope Bay Project Quarry A, B & D Management and Monitoring Plan* in order to:

- a. Incorporate the conditions of this amendment;
- b. Include any findings and mitigation measures proposed under Part D, Item 24;
- c. Provide a concordance table to demonstrate where the following conditions from Licence 2AM-DOH0713 have been applied:
  - i. Part D: Conditions Applying to Construction, Items 9, 9b, 10, 21, and 22; and
  - ii. Schedule D, Conditions Applying to Construction, Items a, b, c, f, k, and n;

- d. Provide for the monitoring of watercourse crossings along the all-weather road throughout the annual ice-free period in order to confirm of their structural integrity, confirm soil and permafrost stability in the immediate areas, and confirm that the crossings have been located adequately with respect to the watercourses.

**PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

Amend Item 1

Insert new monitoring program station number:

New Monitoring Program Station Number	Description	Status
HOP-7a, b & d	Quarries A, B & D respectively	Active

Amend Item 7

The Licensee shall measure and record, in cubic metres, the daily volume of effluent discharged at Monitoring Program Station HOP-3 as well as volumes of effluent pumped at Stations HOP-4, HOP-5, HOP-6 and HOP-7a,b and d.

Insert Item 19

The Licensee shall sample at Monitoring Program Stations HOP-7a, b & d prior to discharge of ponded water from quarries A, B & D to confirm compliance. Samples shall be analyzed for the following parameters:

- a. For compliance purposes, those parameters listed under Part D, Item 22; and
- b. Total Sulphate, Nitrate, Alkalinity, ICP Metals analysis, and Reduction potential (E<sub>h</sub>).

**All remaining terms and conditions of the Licence 2BE-HOP0712 Type ‘B’ dated May 20, 2007, subsequently amended on July 2, 2008, May 4, 2009 and July 20, 2010 still apply.**

This Licence Amendment No.4 issued and recorded at Gjoa Haven, NU on August 24, 2010.

Approved by,




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Thomas Kabloona  
Nunavut Water Board  
Chair