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Affairs Canada

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Our reference  
File # 9545-2-1.2BE.HOPA  
CIDMS #348256

August 20, 2009

Your reference  
2BE-HOP0712/TR/J

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board

Chris Hanks  
Director of Environment and Social Responsibility  
Hope Bay Mining Ltd.

Peter Kusugak  
Manager of Field Operations  
INAC - Iqaluit

*Sent Via Email*

Dear Phyllis, Chris, and Peter,

**Subject            WATER LICENSE #2BE-HOP0712, HOPE BAY MINING LTD. – HOPE BAY  
REGIONAL EXPLORATION PROJECT – KITIKMEOT REGION – JUNE 2009  
MONITORING REPORT**

Please be advised that on behalf of Indian and Northern Affairs Canada, I have completed a review of the above referenced Hope Bay Mining Ltd. submission to the Nunavut Water Board.

A Technical Review Memorandum (attached) is provided to the Board for consideration.

Should you have any questions regarding this submission, feel free to contact me at 867-975-4555 or [David.Abernethy@inac-ainc.gc.ca](mailto:David.Abernethy@inac-ainc.gc.ca).

Regards,

David W. Abernethy  
Water Resources Regional Coordinator  
Operations Directorate, Nunavut Regional Office  
Indian and Northern Affairs Canada  
Iqaluit, Nunavut  
X0A 0H0

Cc:     Kevin Buck, Manager of Water Resources Division, INAC – Iqaluit  
        Melissa Joy, Water Resources Officer, INAC – Kugluktuk  
        Bernie MacIsaac, Director of Operations, INAC – Iqaluit

# TECHNICAL REVIEW MEMORANDUM

Date: Aug. 20/09

To: Phyllis Beaulieu

From: David Abernethy, Indian and Northern Affairs Canada

Re: **WATER LICENSE #2BE-HOP0712, HOPE BAY MINING LTD. –  
HOPE BAY REGIONAL EXPLORATION PROJECT – KITIKMEOT  
REGION – JUNE 2009 MONITORING REPORT**

## A. PROJECT DESCRIPTION

On July 30/09 the Nunavut Water Board (NWB or Board) distributed, to interested parties for review, Hope Bay Mining Ltd.'s (HBML) June 2009 Monitoring Report. This report is required by Part J, Item #17 of the Hope Bay Regional Exploration Project's Type B water license.

The following documents were reviewed to prepare this Technical Review Memorandum,

- NWB. Water License #2BE-HOP0712.;
- HBML June 2009 Monitoring Report, Water License #2BE-HOP0712. July 29/09; and,
- NWB Letter to HBML. *Hope Bay Mining Ltd.; Submission of a Landfarm Operation and Maintenance Manual for the Windy Lake Camp; License 2BE-HOP0712.* Oct. 7/09.

## B. RESULTS OF REVIEW

The following comments and recommendations are provided for your consideration;

### 1. General

- This report notes that the Windy Camp closed for operation on Oct. 23/08. HBML is initiating the closure and decommissioning of this facility. The regional exploration project is now based out of HBML's Doris Camp that is covered under their Type A water license, #2AM-DOH0713.

### 2. Windy Camp Landfarm Closure and Decommissioning

- Section #6 of the submitted Monitoring Report states that the landfarm no longer exists at MS #HOP-4. In a letter dated Oct. 7/08, the NWB informed HBML that they must submit an Abandonment and Restoration (A&R) Plan specific for the landfarm within sixty (60) days (attached). Requirements to be included in the A&R Plan were provided to HBML in this correspondence. A copy of this plan cannot be found on the NWB on-line public registry. INAC is requesting that HBML provide their A&R Plan/Report which must include a detailed description, including photo documentation, of the closure and decommissioning work carried out at the former landfarm site. This Plan/Report must demonstrate that the Board's abandonment and restoration requirements have been met.

### **3. Water Quality Sampling**

- Water samples taken from Monitoring Station (MS) # HOP-5, "Accumulated Effluent from the Windy Camp Bulk Fuel Storage Facility," met the Part D, Item #17 license discharge criteria with the exception of lead which had a value of 0.00104 mg/L (the criteria is 0.001 mg/L). HBML states that "no water removal from MS #HOP-5 occurred during the period. The water in the berm will be run through an oil/water separator and filtration system and the treated effluent will be sampled." INAC requests HBML to advise the NWB and INAC as to where this treated water will be stored for analysis prior to release. Furthermore, a written notice must be provided to the INAC Inspector and Board at least 15 days prior to any planned discharges of water originating from this Bulk Fuel Storage Facility, along with the volume proposed for discharge and location as per Part D, Item #15 of the license.
- Water samples taken from MS #HOP-6, "Accumulated Effluent from the Patch Lake Fuel Storage Facility," met the Part D, Item #17 license discharge criteria. Discharge occurred following an advanced notification to the INAC Inspector.
- HBML sampled water quality from drill holes in Doris Lake and Patch Lake following the completion of drilling operations as per Part F, Item #7 of the license. This sampling exercise revealed that natural background lake levels for Aluminum, Copper, and Selenium exceed CCME Water Quality Guidelines for the Protection of Aquatic Life.

### **4. Water Consumption**

- The total volume of water consumed in June was 1,532 m<sup>3</sup>. The monthly limit is 3,100 m<sup>3</sup>. HBML has noted an inconsistency in tracking drill water consumption between their two (2) drill contractors, "with some drill set-ups measuring only water consumed in drilling activities and returning clean unused water to the source, and others metering the total water circulating through the system, which is in excess of the water actually

consumed for drilling purposes.” They are working with their contractors to develop a consistent method of tracking water consumption.

## **5. Incident Reporting**

- A June 17/09 HBML inspection of drill sites on the Doris and Patch Lakes revealed small spills and leaks of hydrocarbon based and non-hydrocarbon based fluids. HBML cleaned these areas and is in the process of reviewing their post ice drilling clean-up procedures. INAC recommends that HBML develop spill prevention measures for all project activities that require the use of hazardous materials.

## **6. CONCLUSION**

INAC requests HBML to submit a Plan of Action by Aug. 28/09 that states how they will address the above-noted comments/recommendations provided in Part B, Item #s 2, 3, and 5 of this memorandum.

Attached.

Prepared by David Abernethy  
Water Resources Regional Coordinator, INAC – Iqaluit

Cc: Kevin Buck, Manager of Water Resources, INAC – Iqaluit  
Melissa Joy, Water Resources Officer, INAC – Kugluktuk  
Bernie MacIsaac, Director of Operations, INAC – Iqaluit