NWB Annual Report **Year being reported:** 2012

License No: 2BE-HOP1222 **Issued Date:** June 30, 2012
Expiry Date: June 30, 2022

Project Name: Hope Bay Regional Exploration Project

Licensee: Hope Bay Mining Ltd.

Mailing Address:
75 Con Road, Box 2000
Yellowknife, NT
X1A 2M1

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

This licence was re-assigned in 2008 from Miramar Hope Bay Ltd. to Hope Bay Mining Ltd.

General Background Information on the Project (*optional):

Licence 2BE-HOP1222 allows HBML to carry out activities in support of exploration drilling at the Hope Bay Regional Exploration Project and the Windy Camp, which supports exploration activities.

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

Part B | Item 2

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 Part B Item 2(i)]

Water Source(s): Domestic from Windy Lake; drill water from local water sources

Water Quantity:

22995 cu.m	Quantity Allowable Domestic (cu.m)
0 cu.m	Actual Quantity Used Domestic (cu.m)
29200 cu.m	Quantity Allowable Drilling (cu.m)
0 cu.m	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- [x] Solid Waste Disposal
- [ ] Sewage
- [x] Drill Waste
- [ ] Greywater
- [ ] Hazardous
- [x] Other: Fuel Farm Berm Effluent

Additional Details:

When Windy Camp is in operation, water for domestic use is obtained from Windy Lake via a 2 inch diameter submerged pipe with a DFO compliant fish screen.

Water used for drilling is taken from the closest lake to each drill using a similar system to the domestic system. In the case of regional drilling, water is taken from the closest lake to the drill site in accordance with the June 2007 "Hope Bay Exploration Drilling Water Sources" authorized water sources map. Further to this, Amendment No. 3 to the 2BE-HOP0712 Licence issued July 20, 2010 permits water extraction for drilling from additional water bodies in accordance with the specific condictions of the amendment.

Water was not used at Windy Camp for domestic purposes in 2012 as the camp was closed.

When the facilities are open at Windy Camp, waste produced on site is generally treated according to Part D of the licence, with specifics as follows:

-Food waste, wood waste, paper waste and untreated wood products is burned in the incinerator as per Part D Item 3.
-Solid waste that cannot be burned is taken offsite for disposal.
-Drill cuttings produced under this licence are deposited at Windy in the slit trenches and in a depression on a knoll south of Windy. Some drill cuttings were deposited in a depressiong by Quarry 2 at Doris.
-Hazardous materials such as waste oil, glycol, and contaminated soil are shipped offsite for disposal at an approved facility as per Part D Item 6.
-Berm effluent is sampled for water quality against the dicharge criteria of the licence. Effluent that meets the standards for discharge is released in accordance with the licence following a notification to the Inspector; effluent that does not meet the licence criteria is treated onsite until it is treated to acceptable levels for discharge, or it is removed offsite for treatment/disposal.

B. A list of unauthorized discharges and a summary of follow-up actions taken. [see Part B Item 2(iii)]

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)

Please see Item 3 of attached supplement for a list , including details, of all unauthorized discharges that occured in 2012 under licence 2BE-HOP1222.

C. Revisions to the Spill Contingency Plan [see Part B Item 2(v)]

Other: (see additional details)

Additional Details:

The Spill Contingency Plan was approved by the NWB in October 2010 and has since been revised several times. This most recent revision includes details on changes made to reflect care and maintenance. Updates were made to roles and responsibilities, phone numbers, fuel storage, spill response procedures. Non-hydrocarbon chemicals were also added to this most recent revision. No changes

have been made since this last version was submitted in October 2012.

D. Revisions to the Abandonment and Restoration Plan [see Part I Item 3]

Other: (see additional details)

Additional Details:

A revised Closure Plan for this licence was submitted to the NWB in June 2012. The plan is under review by the NWB.

E. Progressive Reclamation Work Undertaken [see Part B Item 2(vi)]

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

HBML has completed removal of fuel piping from the camp. Core was repalletized and removed from the historic tundra storage locations to a permanent location on the Quarry D overburden pad. The former landfarm area was re-covered in coconut mat to help stabilize the soil and prevent surface erosion. As per the letter dated July 5, 2012, submitted to AANDC and the NWB, the bulk fuel tank farm berm at Windy Camp was dismantled and the area was covered with coconut mat at the end of June. General debris clean-up is ongoing and all wastes are being transferred to the Doris North waste management facility for packaging and proper disposal.

F. Results of the Monitoring Program including [see Part B Items 2(ii)]

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

Details described below

Additional Details:

Drilling water source coordinates are maintained on file in the HBML Geology Department for all water sources utilized proximal to the drill targets.

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited [Part J, Item 10];

Details described below

Additional Details:

Monitoring Stations HOP-2 and HOP-3 had no discharge because Windy Camp was closed in 2008 and these facilities were not operational in 2012. Discharges did not occur at the monitoring station HOP-4 because the landfarm at the location was dismantled in 2008.

Water quality at HOP-5 was sampled and discharge occurred in 2012 in compliance with the licence. Details of the discharge location for HOP-5 are in Appendix A of attached supplement. No discharges occurred at HOP-6.

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

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 Part B Item 2(ix)]

Additional Details: (Attached or provided below)

N/A

H. Any responses or follow-up actions on inspection/compliance reports [see Part B Item 2(iv)]

Inspection Report received by the Licensee (Date):

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

Details are set out at Item 4 of the 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. 2BE-HOP1222.

Date Submitted:	March 31, 2013	
Submitted/Prepared by:	Chris Hanks	
Contact Information:	**Tel:**	(720) 917-4489
	Fax:	N/A
	email:	chris.hanks@newmont.com

GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
HOP-1 - Raw water supply intake at Windy Lake	68	3	38	106	37	6

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
HOP-2 - WWTF effluent discharge at the surge tank prior to being pumped over the ridge east of the Windy Camp facilities	68	3	50.4	106	37	3.4
HOP-3 - WWTF effluent at a point of entry into Windy Lake	68	3	58.5	106	37	16.2

Source Description	UTM Easting	UTM Northing
HOP-5 - Effluent from the Bulk Fuel Storage Facility located at the Windy Camp, prior to release.	432621	7550553
HOP-6 - Effluent from the Bulk Fuel Storage Facility located at the Patch Lake location, prior to release to a location approved by an Inspector.	433718	7551907

2012 2BE-HOP1222 Type B Water Licence Annual Report Supplemental Document

Windy Camp

Nunavut Water Board

Prepared by
Hope Bay Mining Ltd.
North Vancouver, BC

Prepared for
Nunavut Water Board
Gjoa Haven, NU

March 2013

Executive Summary
2BE-HOP1222 Annual Report

Hope Bay Mining Ltd. ("HBML") has filed its Annual Report on its activities during 2012 under Water Licence No. 2BE-HOP1222 issued by the Nunavut Water Board. As set out in Part B Item 2 of the Licence, the report includes information with respect to the following topics:

- a summary of water use and waste disposal activities
- a summary of all information requested and results of the Monitoring Program
- a list of unauthorized discharges and a summary of follow-up actions taken
- a brief description of follow-up actions taken to address concerns detailed in inspection and compliance reports prepared by the Inspector
- up to date contact information with respect to the Spill Contingency Plan
- a description of all progressive and/or final reclamation work undertaken
- a summary of modification and/or major maintenance work carried out on the water supply and waste disposal facilities
- a brief description of future studies currently planned or proposed

Aolapkaeyin Naetomik Okaohen
2BE-HOP1222 Ukeogoagaagan Unipkaak

Hope Bay Mining Ltd.-kon ("HBML") tonihihimaliktun Ukeotoagaagan Unipkamiknik havaamigun 2012-mi ukeommi ilagani Imaknik Atogeagani Laeseoyum Napaa 2BE-HOP0712 toniyaohimayok Nunavumi Imalikiyin katimayenin. Okakhimayumi Naonaepkun B-mi, Ilikuktok 2 Laeseoyumi, unipkak ilakaktok hivunikhiyotikhanik ukununa:

- naetomik okaoheoyonik imaknik atoknigagun ikagolikiyotilo
- naetomik okaoheoyonik tamaeta hivunikhiyotikhan tukhiktaohimayun kanogilinigilo Amigiyotinun Havaani
- titigakhimayonik agiktaohimagitun kuvigaeyun naetomilo okaoheoyunik upiyotinik kigoagun
- naetomik okaoheoyonik upiyotinik ihoakhiyaagani ihomalutaoyun titigakhimayun ilitokhaeyutinin maligoateakmagaalunen makpigaagini ihoakhakhimayaeni Ilitokhaeyim
- nutaanik okakatikhanik hivunikhiyumanikan Kuveyokakan Havaagiyakhaenun Upalogaeyaonmik
- okateaklogin tamaeta hivumuginaktun kigolelo nunan utiktitpaleayagani ilitkuhenun havaagiyaovaleayun
- naetomik okaoheoyonik notaguktitiyutinik ihoakhaotiniklunen imiktakvikon havaoheoyun ikagukvelo pikotaoyunik
- naetomik okaoheoyonik hivunikhami ilitokhaotikhanik taya ihoakhaktaoliktun atoktaoyumayolunen

ᓇᐃᓐᓴᕐᓂᕐᓗᒃ ᑐᓴᐅᓴᓕᓕᐅᕐᓂᕐᓗᒃ
2BE-HOP1222 ᐅᑭᐅᒧᑦ ᐊᑐᕐᑕᕐᓗᒃ ᑐᓴᖏᓴᓕᓕᐅᕐᓂᕐᓗᒃ

Hope Bay Mining Ltd. ᐅᓵᖅᓯᐅᖅᑎᑦ ᐅᑭᐅᒧᑦ ᐊᑐᕐᑕᒻᒥᓂ ᐅᓂᒃᓕᓕᐅᕐᖏᑦ ᑐᓴᖏᓴᓕᓕᐅᕐᖏᑦ ᐱᓕᓚᐊᓚᒋᑕᒻᓐᓂᑦ ᐅᑭᐅᒧᑦ 2012 ᐃᒪᖏᒧᑦ ᓕᐃᕐᖏᓐᓂ ᓇᓴᐅᑦ 2BE-HOP1222 ᐊᖏᑕᐅᓕᕐᖏᑦ ᓄᓇᕗᒥ ᐃᒪᓕᓚᓵᑦ ᑲᑎᒪᓵᖅᓂᒻᒪᓂ. ᐊᖏᑕᐅᓯᒪᔪᖅ ᒪᓕᒃᓄᒍ Part B, ᓇᓴᐅᑎᖅᖏᑦ 2 ᓕᐃᓴᒥ, ᑐᓴᖏᓴᓕᓕᐅᕐᓯᒪᔪᖅ ᐅᓂᒃᓕᓕᐅᕐᓯᒪᔪᖅ ᑐᖏᓐᔪᖅ ᑕᑯᓄᖓ ᐊᑦᓂ ᑎᑎᕐᓯᓯᒪᔪᓄᑦ:

- ᓇᐃᓱᕐᓯᒪᓵᓗᑎᒃ ᐅᓂᒃᓱᕐᓯᒪᔪᑦ ᐃᒪᐅᓵ ᐊᑐᕐᑕᓂᖓᓄᓂ ᐊᓚᒪᓗ ᐊᒃᑕᑯᖏᑕᖓᓂᒧᑦ
- ᓇᐃᓴᕐᓯᒪᓵᓗᑎᒃ ᐅᓂᒃᓱᕐᓯᒪᔪᑦ ᑕᒪᕿᑦ ᑐᓴᕐᑕᐅᔪᓕᐅᕐᖏᑦ ᐊᓚᒪᓗ ᖃᐅᐅᓴᕐᑕᐅᑉᓯᓕᐊᔪᓄᑦ ᐊᑐᕐᖏᑦ
- ᑎᑎᕐᓯᒪᔪᑦ ᐊᖏᑕᐅᓯᒪᖓᕐᖏᑦ ᓴᖏᐊᓕᓕᐊᔪᑦ ᐊᓚᒪᓗ ᖃᓄᖅ ᐊᖏᑕᐅᓕᐅᕐᓂᖓᓂᑦ ᑎᑎᖃᕐᓯᒪᓵᓗᑎᒃ
- ᓇᐃᓱᕐᓯᒪᓵᓗᑎᒃ ᑎᑎᕐᓯᒪᔪᑦ ᖃᐅᓵᓴᕐᑕᐅᖃᕐᓂᕆᔨᖅᑎᖏᓐᓂᑦ ᓯᓇᑐᐃᓐᓇᐃᓐ ᖃᐅᓵᓴᕐᑕᐅᓂᖓᓂᑦ ᐊᓚᒪᓗ ᐃᓱᒪᓗᑎᒃᓴᐅᓕᐊᔪᓄᑦ ᑭᐅᔪᑕᐅᔪᑦ ᑕᑯᓴᕐᑕᐅᖃᕐᓂᖓᓄᑦ ᐅᖃᐅᓯᐅᓕᐅᕐᓂᕐᓗᒃ
- ᐅᐸᓗᒥᓗ ᐊᖏᑕᐅᓯᒪᔪᑦ ᑯᐃᔪᖃᖅᐸᑦ ᐊᑐᕐᑕᐅᔪᖅᓴᑦ ᐊᖏᐅᒪᔪᑦ ᐊᑐᐃᓐᓇᐃᓐ
- ᐊᑐᕐᑕᐅᔪᑦ ᓯᓇᑐᐃᓐᓇᐃᓐ ᐊᓚᒪᓗ ᓴᓂᒃᑕᐅᓂᖓᓕᒥ ᓄᑦᓯᕐᓄᕐᑕᐅᓂᖓᓂᒃᓄᓂᒃ ᓄᓇᐸ ᓴᓇᒃᐅᐅᓯᒪᔪᑦ
- ᓇᐃᓴᕐᓯᒪᓵᓗᑎᒃ ᑎᑎᕐᓯᒪᔪᑦ ᓄᑦᓯᕐᓄᕐᑕᖏᓐᓄᑦ ᐊᓚᒪᓗ ᐊᖏᑭᐊᕐᑕᐅᔪᑦ ᐊᖏᓯᕐᑕᐅᔪᑦ ᓴᓇᒃᐅᐅᓂᖓᓄᓂ ᐃᒥᕐᑕᕐᐳᒃᓕᑦ ᐊᑐᕐᑎᑦ ᐊᓚᒪᓗ ᐃᒪᖏᒧᑦ ᖃᐅᔨᓴᕐᑐᐃᓐᓇᖅᑎᑦ
- ᓇᐃᓇᕐᓯᒪᓵᓗᑎᒃ ᑎᑎᕐᓯᒪᔪᑦ ᓯᕗᓂᒃᓴᒥ ᖃᐅᓵᓴᕐᑕᐅᓂᐊᕐᓂᖓᓂᑦ ᒪᓐᓇᒧᑦ ᐸᕐᓯᑕᐅᔪᑦ ᐅᓪᓗᓐᓂᑦ ᑐᓴᕐᑕᐅᔪᑦ

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1. A summary report of water use and waste disposal activities [see Part B Item 2 (a)]

General details on water use and waste disposal activities under licence 2BE-HOP1222 can be found at Item A of the annual report form. Further details on water use in 2012 are presented in part B of Appendix A.

Waste disposal activities under licence 2BE-HOP1222 were focused on removing material from the old Windy Camp and the closed Patch Lake facility. All waste removed was taken to the waste management facility at Doris North for sorting and eventual backhaul by plane or sealift. Windy Camp was not operational in 2012 so no domestic waste was produced and the incinerator was not put into service.

From Windy Camp, there was clean-up and removal of general debris, and a sweep of all buildings to remove batteries from emergency lighting systems. All fluorescent lighting was removed for appropriate disposal. The 2012 Windy Camp core relocation project generated wood debris that was removed from site and chipped and stockpiled for future reclamation work. Two cuttings dumps adjacent to Windy Camp were cleaned of megabags and debris.

From the Patch Lake facility, there was clean-up and removal of drums, the clean-up of one cuttings dump, and the removal of the cuttings bags.

2. A summary of all information requested and results of the Monitoring Program [see Part B Item 2 (b) and Part J Item 21]

This information is set out in Appendix A to this document.

3. A list of unauthorized discharges and a summary of follow-up actions taken [see Part B Item 2 (c)]

Date of Spill: April 7, 2012
Spill No: N/A
Date of Notification to an Inspector: N/A
Product Spilled: Hydraulic Oil
Details of Spill: A broken hydraulic line on a skid steer operating in the core storage area north of Windy Camp leaked approximately 0.5 L of hydraulic fluid on the ice road accessing the area. The line was repaired and contaminated snow/ice was scraped up, contained, and delivered to the waste management facility at Doris Camp.

Date of Spill: April 10, 2012
Spill No: N/A
Date of Notification to an Inspector: N/A
Product Spilled: Hydraulic Oil

Details of Spill: The skid steer operating at the Windy Camp north core storage area experienced a second leak of hydraulic fluid from a broken line; estimated volume leaked is 3 L. Original repair determined to be ineffective. Entire line on machine was replaced. Contaminated snow was cleaned up and delivered to the Doris Camp waste management facility.

4. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by the Inspector [see Part B Item 2 (d)]

Two inspections were conducted by the inspector in 2012 for licence 2BE-HOP1222.

The first inspection occurred July 9-10, 2012. Both Windy Camp and the Patch Lake Facility were visited. Concerns listed by the inspector in the inspection report are listed below with the corresponding HBML action:

- Cuttings bags to be removed from Windy Camp.
    - Cuttings bags were removed from the tundra at Windy Camp

Windy Upper Laydown Area on Sept 29, 2012, after removal of cuttings bags

- Salt from cuttings pile appear to be impacting vegetation and migrating towards nearby water body. Assessment and monitoring of the spread and potential impacts to be reported to the inspector. Draft Plan to be submitted to Inspector by Dec. 31, 2012.
    - HBML's reclamation contractor opportunistically sampled the area in July 2012. HBML submitted a draft sampling plan on November 13, 2012. HBML received the sample results on December 5, 2012, and has revised the cuttings sump sampling plan to include the information. The revised sampling plan was submitted to AANDC on December 20, 2012.

The second inspection occurred October 2-3, 2012. The inspector visited Windy Camp but because the Patch Lake Facility was not accessible, only an overflight was conducted of that site. Concerns listed by the inspector in the inspection report are listed below with the corresponding HBML action:

- The licensee will monitor for water build up within the quarry (Quarry B) and if removal of the water is required then samples are to be collected and the results submitted to the inspector prior to discharge. Sampling and discharge criteria are outlined in the 2BE-HOP1222 water licence and the approved Quarry A, B and D Management and Monitoring Plans. Additional sampling, as required will be determined by the inspector following freshet and a review of the sampling results submitted in the monitoring plans.
    - HBML intends to monitor water quality prior to discharge as per the requirement of the water licence and the approved Quarry A, B and D Management and Monitoring Plan. Non-compliant water will be transferred to the TIA.
- Issues with slumping and erosion at the Windy Camp remain and have not been addressed to date by the licensee.
    - While much of the shoreline erosion of Windy Lake is naturally occurring, with respect to the landfarm area, HBML has placed coconut matting on the exposed soils of the former landfarm area and fuel containment area. The landfarm area has begun naturally revegetating, which will stabilize the area. Ongoing inspections and erosion control will be implemented in 2013 and beyond.
- None of the demolition work on buildings and cabins has been undertaken as of the period of inspection
    - Demolition of the tent frames is scheduled to begin in 2013.
- The Licensee has proposed a schedule of in-situ remediation be implemented at Windy Camp; this has not yet been approved. It is the recommendation of the inspector that soils be removed and transported to the Doris Land Farm facility as part of the on-going reclamation of the site and during the Care and Maintenance phase of the Hope Bay project.
    - A closure plan for Windy, including Patch Lake, is currently pending approval from the NWB. Once approved, HBML can proceed with the approved plan.
- Sampling results required from the last inspection from an old cuttings deposit to the south of the Patch Lake Facility have not been submitted. These results and a remediation plan to address the site is required.
    - In the July 2012 Inspection, AANDC requested that HBML submit a sampling plan for the cuttings deposit and surrounding area and lake by the end of 2012. HBML's reclamation contractor had opportunistically sampled the area in July 2012. HBML submitted a draft sampling plan on November 13, 2012. HBML received the sample results on December 5, 2012, and has revised the cuttings sump sampling plan to include the information. The revised sampling plan was submitted on December 20, 2012. Reclamation plans for the area are included in the Windy and Patch Closure Plan, submitted in July 2012, and currently under review by the NWB and regulatory agencies.
- The Licensee has proposed a schedule of in-situ remediation be implemented for hydrocarbon contaminated soils at the Patch Lake facility. This has not yet been approved. It is the recommendation of the inspector that soils be removed to the Doris land Farm facility as part of the on-going Care and Maintenance of the Hope Bay project.
    - A closure plan for Windy, including Patch Lake, is currently pending approval from the NWB. Once approved, HBML can proceed with the approved plan.

5. An update to the Spill Contingency Plan, if required, including contact information in the form of an addendum [see Part B Item 2 (e)]

The Spill Contingency Plan was approved by the NWB in October 2010 and has since been revised several times. The most recent revision was submitted to the NWB in October 2012. This revision includes details on changes made to reflect care and maintenance. Updates were made to roles and responsibilities, phone numbers, fuel storage, spill response procedures. Non-hydrocarbon chemicals were also added to this most recent revision. No changes have been made since this last version was submitted.

6. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion or operations [see Part B Item 2 (f)]

Please refer to Item E of the Annual Report Form for a description of progressive reclamation undertaken in 2012 as part of this licence.

7. A summary of modification 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 [see Part B Item 2 (g)]

Windy Camp was closed on October 23, 2008. No modification and/or maintenance work was carried out on the Water Supply and the Waste Disposal Facilities in 2012.

8. A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed [see Part B Item 2 (h)]

No specific studies or reports were requested by the Board in 2012 and no studies are planned or proposed for 2013.

9. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported [see Part B Item 2 (i)]

No other details on water use or waste disposal were requested by the Board in 2012.

10. Where drilling activity has penetrated below the permafrost layer, the NWB requests that the proponent record the depth of permafrost and location of the drill hole to be included within the Annual Report [see Part F Item 4]

Drilling activity did not occur in 2012. For areas where exploration is carried out, depth of permafrost is calculated using thermistor strings that measure ground temperature, installed in

geotechnical drill holes (thermistor strings are not installed in all drill holes). The thermistor stings are used because it is not possible to visually assess when a drill hole has passed through the permafrost layer. Results obtained from the thermistor strings are used to extrapolate the lower depth of permafrost using thermal gradient. There are several such thermistor strings throughout the Hope Bay Belt and measurements are taken on an on-going basis. The depth of permafrost extrapolated from data collected at thermistor string SRK-50 (200 m in length) is 570 m. The depth of permafrost extrapolated from data collected at thermistor string 08TDD632 (350 m in length) is 435 m. Results collected from all thermistor strings are presented in the 2AM-DOH0713 2012 Annual Geotechnical Inspection Report filed with the NWB on March 31, 2013.

Appendix A

Annual Monitoring Report – 2BE-HOP1222

a) Summary of Monitoring Information

The following tables summarize the results of sampling undertaken as part of the monitoring program detailed in Part J of 2BE-HOP1222.

The camp water treatment and wastewater treatment facility (WWTF) permitted under this licence were not operational in 2012, therefore no sampling was conducted at monitoring stations HOP-1 (freshwater intake), HOP-2 (WWTF discharge), or HOP-3 (point of entry of WWTF discharge to Windy Lake). The landfarm at Windy Camp (HOP-4) was dismantled in 2008, so no sampling was conducted at this monitoring station.

The bulk fuel storage tanks at Windy Camp were moved to Doris Camp in winter 2009 for use there, however, the bulk fuel storage berm (HOP-5) remained in place. Water samples collected within the berm on May 10, 2012, were found to be compliant with discharge criteria and on June 7, 2012, 95 m^3 of water was discharged to the tundra without incident. Water samples taken on June 19, 2012, were compliant with discharge criteria and on June 23, 2012, 39 m^3 of water was discharged to the tundra without incident. Analytical results from May and June compliance monitoring are provided in Table 1. As per the letter of July 5, 2012, to AANDC and the NWB, the bulk fuel storage berm was dismantled and the area was covered with coconut mat at the end of June 2012. The material inside the berm liner was transferred to the Doris landfarm for remediation.

Table 1 - Summary water quality data for HOP-5 from May and June 2012, in mg/L, unless specified otherwise

HBML Sample		HOP5-10MAY12	HOP5-19JUN12B	Licence 2BE-HOP1222
ALS ID		L1146556-1	L1166032-1	Part D Item 17
Date/Time Sampled		10-May-2012 @ 19:38	19-Jun-2012 @ 19:44	Max average or any grab
Parameter	**Units**	**Results**		
Benzene	mg/L	<0.00050	<0.00050	0.37
Ethylbenzene	mg/L	<0.00050	<0.00050	0.002
Toluene	mg/L	<0.00050	<0.00050	0.09
Lead (Pb)-Total	mg/L	0.0005	0.00064	0.001
Oil and Grease	mg/L	<1.0	<1.0	15.0
Oil And Grease (Visible Sheen)		no visible sheen	no visible sheen	no visible sheen
pH	pH	7.02	8.3	
TDS (Calculated)	mg/L	113	470	
Hardness (as $CaCO_3$)	mg/L	44.6	-	
Alkalinity, Total (as $CaCO_3$)	mg/L	36.8	153	
Bicarbonate (HCO_3)	mg/L	44.9	186	
Carbonate (CO_3)	mg/L	<5.0	<5.0	
Chloride (Cl)	mg/L	39.8	138	
Conductivity (EC)	uS/cm	265	887	
Hardness (as $CaCO_3$)	mg/L	40.9	168	
Hydroxide (OH)	mg/L	<5.0	<5.0	
Ion Balance	%	93	96.6	
Sulfate (SO_4)	mg/L	10.2	58.4	
Nitrate and Nitrite (as N)	mg/L	<0.071	3.36	
Nitrate (as N)	mg/L	<0.050	3.36	
Nitrite (as N)	mg/L	<0.050	<0.050	

HBML Sample		HOP5-10MAY12	HOP5-19JUN12B	Licence 2BE-HOP1222
ALS ID		L1146556-1	L1166032-1	Part D Item 17
Date/Time Sampled		10-May-2012 @ 19:38	19-Jun-2012 @ 19:44	Max average or any grab
Parameter	**Units**	**Results**		
Aluminum (Al)-Total	mg/L	0.883	0.691	
Antimony (Sb)-Total	mg/L	0.00042	<0.00040	
Arsenic (As)-Total	mg/L	0.001	0.00286	
Barium (Ba)-Total	mg/L	0.0125	0.0242	
Beryllium (Be)-Total	mg/L	<0.0010	<0.0010	
Boron (B)-Total	mg/L	<0.050	<0.050	
Cadmium (Cd)-Total	mg/L	0.000021	0.00072	
Calcium (Ca)-Total	mg/L	9.39	35.4	
Chromium (Cr)-Total	mg/L	0.0019	<0.0050	
Cobalt (Co)-Total	mg/L	<0.0020	<0.0020	
Copper (Cu)-Total	mg/L	0.0051	0.0061	
Iron (Fe)-Total	mg/L	0.701	1.02	
Lithium (Li)-Total	mg/L	<0.010	<0.010	
Magnesium (Mg)-Total	mg/L	5.13	18.9	
Manganese (Mn)-Total	mg/L	0.286	0.0164	
Mercury (Hg)-Total	mg/L	<0.000020	<0.00010	
Molybdenum (Mo)-Total	mg/L	<0.0050	<0.0050	
Nickel (Ni)-Total	mg/L	<0.0020	0.0044	
Potassium (K)-Total	mg/L	3.99	5.23	
Selenium (Se)-Total	mg/L	<0.00040	<0.0020	
Silver (Ag)-Total	mg/L	<0.000020	<0.00010	
Sodium (Na)-Total	mg/L	24.3	99.3	
Thallium (Tl)-Total	mg/L	<0.00010	<0.00010	
Tin (Sn)-Total	mg/L	<0.050	<0.050	
Titanium (Ti)-Total	mg/L	0.0356	0.0141	
Uranium (U)-Total	mg/L	0.00019	0.00178	
Vanadium (V)-Total	mg/L	0.0018	0.0033	
Zinc (Zn)-Total	mg/L	0.0068	0.0311	
Calcium (Ca)-Dissolved	mg/L	9.02	37.2	
Magnesium (Mg)-Dissolved	mg/L	4.47	18.3	
Potassium (K)-Dissolved	mg/L	3.7	5.26	
Sodium (Na)-Dissolved	mg/L	23.3	106	
Phenols (4AAP)	mg/L	0.0223	-	
o-Xylene	mg/L	<0.00050	<0.00050	
m+p-Xylene	mg/L	<0.00050	<0.00050	
Xylenes	mg/L	<0.00071	<0.00071	
F1(C6-C10)	mg/L	<0.10	-	
F1-BTEX	mg/L	<0.10	-	
F2 (>C10-C16)	mg/L	<0.25	-	
F3 (C16-C34)	mg/L	<0.25	-	
F4 (C34-C50)	mg/L	<0.25	-	
Acenaphthene	mg/L	<0.000020	-	
Acridine	mg/L	<0.000020	-	
Anthracene	mg/L	<0.000010	-	
Benzo(a)anthracene	mg/L	<0.000010	-	
Benzo(a)pyrene	mg/L	<0.0000050	-	
Benzo(b&j)fluoranthene	mg/L	<0.000010	-	
Benzo(g,h,i)perylene	mg/L	<0.000020	-	
Benzo(k)fluoranthene	mg/L	<0.000010	-	

HBML Sample		HOP5-10MAY12	HOP5-19JUN12B	Licence 2BE-HOP1222
ALS ID		L1146556-1	L1166032-1	Part D Item 17
Date/Time Sampled		10-May-2012 @ 19:38	19-Jun-2012 @ 19:44	Max average or any grab
Parameter	**Units**	**Results**		
Chrysene	mg/L	<0.000020	-	
Dibenzo(a,h)anthracene	mg/L	<0.0000050	-	
Fluoranthene	mg/L	<0.000020	-	
Fluorene	mg/L	<0.000020	-	
Indeno(1,2,3-cd)pyrene	mg/L	<0.000010	-	
Naphthalene	mg/L	<0.000050	-	
Phenanthrene	mg/L	<0.000050	-	
Pyrene	mg/L	<0.000010	-	
Quinoline	mg/L	<0.000020	-	
2-Fluorobiphenyl	%	72.5	-	
Nitrobenzene d5	%	75.4	-	
p-Terphenyl d14	%	83.7	-	
B(A)P Total Potency Equivalent	mg/L	<0.000010	-	

The fuel storage tanks at the Patch Lake bulk fuel storage facility were relocated to temporary storage at Doris Camp in 2010 where they remained throughout 2012. In June 2012, samples of melt water taken from the partially decommissioned berm of the bulk fuel storage facility (HOP-6) were found to be compliant for discharge, but evaporation over the period reduced the available melt water to only minor volumes in the facility eliminating the need for discharge.

No sampling occurred at monitoring stations HOP-7A HOP-7B, or HOP-7D (located in Quarries A, B, and D, respectively) during 2012 because there was no ponded water to sample.

Due to the fact that no exploration drilling occurred in 2012, samples were not taken through lake ice (as required by Part F Item 7 and Part J Item 7) to establish water quality prior to and upon completion of drilling program.

b) Quantities of water utilized for camp, drilling and other purposes

During 2012, no water was utilized for domestic camp use, dust suppression or exploration drilling. A portable washroom trailer was set up to support reclamation activities in the Windy Camp area; however, due to the fact that there are no services at Windy Camp, water used in the trailer came from Doris Lake or the Doris Camp kitchen reverse osmosis tank, and waste produced by the portable washroom was transferred to the Doris Camp wastewater treatment plant.

c) Quantity of effluent discharged

Windy Camp was closed throughout 2012 therefore no discharges occurred related to the waste water treatment facility (WWTF) at monitoring station HOP-2.

HOP-5 (Windy Camp bulk fuel storage) water samples were compliant with discharge criteria on two occasions: 95 m^3 of water were discharged to the tundra without incident on June 7, 2012, and 39 m^3 of water were discharged to the tundra without incident on June 23, 2012.

No discharges occurred at the Patch Lake bulk fuel storage facility (HOP-6) in 2012 due to the evaporation of the effluent that had accumulated at the facility.

d) Volume of sludge removed from sewage disposal facility

No sludge was removed from the Windy Camp WWTF in 2012 because this facility was not operational and the camp was closed.

e) Results of Toxicity Testing

HBML did not perform toxicity testing to demonstrate the non-acute toxicity of the effluent discharged from the WWTF at HOP-3. No effluent was available for sampling at this location due to the closure of Windy Camp throughout 2012. The testing is normally conducted in accordance with the following test procedures:

i. Acute lethality to Rainbow Trout, Oncorhynchus mykiss (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13); and
ii. Acute lethality to the crustacean, Daphnia magna (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/14).