



P.O. Box 119  
GJOA HAVEN, NU X0B 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369

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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYIT  
OFFICE DES EAUX DU NUNAVUT

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File No.: **2BE-HOP1222**

June 30, 2012

Chris Hanks  
VP Environmental Affairs  
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: NWB Renewal Licence No. 2BE-HOP1222, Hope Bay Regional Exploration Program**

Dear Mr. Hanks,

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Please find attached Licence No. **2BE-HOP1222** issued to Hope Bay Mining Ltd. by the Nunavut Water Board 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*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee will be in contravention of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSTRA)*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence<sup>1</sup>. The NWB recommends that an application for the renewal of this Licence be filed at least three months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment

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<sup>1</sup> Sec.46 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSTRA)*

process. The process and timing may vary depending on the scope of the amendment, however a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration<sup>2</sup>

Sincerely,



Thomas Kabloona  
Nunavut Water Board, Chair

TK/dh/pb

Enclosure: Licence No. **2BE-HOP1222**  
Comments AANDC, EC

cc: Kitikmeot Dist.

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<sup>2</sup> Aboriginal Affairs and Northern Development Canada (AANDC), May 10, 2012; Environment Canada (EC), May 10, 2012;

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**DECISION**

**LICENCE NUMBER: 2BE-HOP1222**

This is the decision of the Nunavut Water Board (NWB) with respect to an application, dated March 13, 2012, for the renewal of a Water Licence, made by:

**HOPE BAY MINING LTD.**

to allow for the use of water and disposal of waste during camp operations and exploration drilling at the Windy Lake Camp associated with the Hope Bay Regional Exploration Program, located within the Kitikmeot Region, Nunavut, generally located at the geographical coordinates as follows:

Latitude: 68° 3'N and Longitude: 106° 37'W (Existing Windy Lake Camp)  
Lat. 64° 4' 8"N and Long. 106° 36' 35"W (Proposed New Windy Camp Quarry D)

Regional Drilling Extents:

NW: Latitude: (68° 12' 30.017" N) Longitude: (106° 45' 0.001" W)  
NE: Latitude: (68° 9' 33.886" N) Longitude: (106° 28' 59.986" W)  
SE: Latitude: (67° 29' 11.226" N) Longitude: (106° 8' 3.172" W)  
SW: Latitude: (67° 31' 39.992" N) Longitude: (106° 42' 33.509" W)

**DECISION**

After having been satisfied that the application was for a location that falls outside of an area with an approved Land Use Plan and exempt from the requirement for screening as described within Schedule 12-1 by the Nunavut Impact Review Board in accordance with Article 12 of the *Nunavut Land Claim Agreement (NLCA)*, the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act)* and Article 13 of the *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and taking into consideration the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

**Licence No. 2BE-HOP0712 be renewed as Licence No. 2BE-HOP1222 and issued subject to the terms and conditions contained therein. (Motion #: 2012-03-L01)**

SIGNED this 30<sup>th</sup> day of June, 2012 at Gjoa Haven, NU.



Thomas Kabloona  
Nunavut Water Board  
Chair

TK/dh/pb

## LICENCE NUMBER: 2BE-HOP1222

### BACKGROUND

The application is for renewal of Licence 2BE-HOP0712, which has been issued for a site with a long history of exploration in the Hope Bay belt area and is now referred to as the Hope Bay Regional Exploration Project. The NWB first issued a water licence for this site in 1998. Since that time, several renewals, modifications and amendments have been processed and issued by the NWB. A brief summary is provided below:

Original Application	NWB2WIN for Windy Camp Only (additional water licence for NWB2WOL-wolverine camp)
Application for renewal	Request to combine the licences into one licence
Renewal of NWB2HOP0002	Licence for Windy Camp only as the Wolverine camp has been remediated.
NWB2HOP0207 – February 21, 2002	Windy Camp and exploration activities
Modification/Amendment 2003	Upgrade for the Sewage Treatment Facility
Modification/Amendment 2005	Construction of Bulk Fuel Storage Facility
2BE-HOP0712 issued May 20, 2007	Hope Bay Regional Exploration Project
Assignment issued January 23, 2008	Assignment to Hope Bay Mining Ltd.
Amendment No.1 issued July 2, 2008	*Increase in water use from 50 m <sup>3</sup> /day to 100 m <sup>3</sup> /day
Amendment No.2 issued May 4, 2009	Temporary use of water from Windy Lake for Doris Camp
Amendment No.3 issued July 20, 2010	Amend restriction of water sources
Amendment No. 4 issued August 24, 2010	Discharge from quarries A, B and D
Amendment No.5 issued December 15, 2010	Move of Windy Camp and relocation of Patch Lake Fuel Tank Farm to Quarry D upon decommissioning of Patch Lake Major Drilling infrastructure. The amendment also included the additional water use for dust control on the Windy/Doris all weather road of 200m <sup>3</sup> /day when necessary for a total licensed water use of 343m <sup>3</sup> /day

### CURRENT APPLICATION

The current application is for the renewal of Licence 2BE-HOP0712. The renewal application indicated that there were no deviations (amendments) from the current licence and the subsequent amendments and that the Licensee was requesting a 10 year licence term. No drilling activities were planned for 2012, however there is a desire to keep a full licence in place in the event that a change in operations is considered and there is a requirement to recommence exploration activities in the area. The Application included the following information:

- Application cover letter dated March 13, 2012

- Application Form
- Application Summary
- Application Map
- Application Compliance Status
- Application Part 13 Supplement from Amendment 5 (water use sources)
- Financial Statement 2011 Annual Report
- Certificate of Incorporation and Directors List, and
- Application cheque

Additional documents that were reference with respect to the application are as follows:

- Hazardous Waste Management Plan – March 2012
- Incinerator Management Plan – March 2012
- Non-Hazardous Waste Management Plan – March 2012

## **ISSUES**

The following section outlines the issues raised by interested parties and provides the background on the terms and conditions imposed within the body of the licence.

### **Camp Location**

The original Windy Camp was closed for operations October 23, 2008. In 2010, the Windy Camp sewage treatment plant was removed and installed at the Boston Camp as part of an upgrade to that facility. As well, eight of the former Windy Camp cabins were removed in April - May 2010 and reused at Doris North as temporary offices and accommodations.

The Bulk Fuel Storage Tanks at the Windy Camp were removed as well, from the containment berm at HOP-5 in 2009 and relocated to the Doris site for the Doris North operations. In addition, at the Patch Lake Fuel Farm, the entire Major shop facility was dismantled for removal. All associated contractor equipment and materials were packaged for staging at Roberts Bay for the summer sealift. A total amount (including materials from Boston camp) of just over 1,700,000 lbs of equipment and materials was removed from the Hope Bay belt in 2009.

Support for the current exploration program has been provided through the camp at the Doris Project. The Scheduled construction of the new Windy Camp was proposed for 2012, however with the recent move to care and maintenance status, this has been deferred. The bulk fuel storage facility at the Patch Lake Facility was also originally scheduled to be relocated for future use at this quarry site. Upon announcement of the regional exploration program being put on hold and facilities into care and maintenance, the construction of the new camp and fuel storage has also been put on hold indefinitely.

In Amendment No.5, issued December 15, 2010, the proposed new location of the Windy Camp is Quarry Site D, located along the Doris-Windy all-weather road. A requirement for the notification of continued plans for the relocation of the Windy Camp and the Bulk Fuel Storage at Quarry Site D has been included in this renewal Licence under Part E, Item 2 and Part E, Item 9.

## Water Use

The water use under this Licence has been adjusted to indicate the source and an amount for domestic use at the Windy Camp and a separate water use amount for activities associated with the Hope Bay Regional Exploration Project. The total water use for the project had been adjusted to meet ongoing requirements of the Project through Amendment No. 1, which increased total water use to 100m<sup>3</sup>/day.

On May 4, 2009 Amendment No. 2 was issued following a public review of the application, which allowed for the water use at the Windy Camp to be utilized for potable water use at the Doris North Camp due to water quality issues of Doris Lake at the intake facility. For Public health reasons, with respect to the presence of blue-green algae, the use of an alternative water source was initially allowed, and was then formally permitted through the issuance of the amendment. This water use continues to be referred to as a temporary use until the water treatment and/or alternative water source is secured for the Doris North Camp. Several conditions had been included in the amendment, requiring the provision of notice to the Inspector upon completion of the upgrades at the Doris Camp, and also if there is any further requirement for water use from the Windy Camp during the term of the Licence. These conditions have been carried forward into the recent renewal.

On June 20, 2010, through Amendment No.3, the water use was amended to allow other local water sources to be used for drilling purposes, outside of those identified in the original 2007 renewal application. As proposed by HBML, water for use in drilling shall only be withdrawn from water bodies possessing a surface area equal to or greater than 15,000 m<sup>2</sup>, unless otherwise approved by the Board. HBML also committed to following the Department of Fisheries and Oceans' "*Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut*".

Finally, through Amendment No.5, additional water use was granted for two separate issues. Due to the proposed construction of a new Windy Camp and the increase in camp capacity to 180 persons, water use through this amendment was increased from 20 m<sup>3</sup>/day to 63 m<sup>3</sup>/day for potable use. In addition, a request was made to seasonally obtain water as required for dust suppression purposes (May through September), along the all-weather road from the Windy Camp to the Doris Camp. The request was granted to use up to 200 m<sup>3</sup>/day of water, seasonally from Windy Lake.

In addition to the requirement to monitor the volume of water being used, concerns were expressed over the possible impacts to Windy Lake water levels due to the volume, timing and short term use of water for dust suppression. The NWB concurs with the concerns and has carried forward from the amendment, the requirement to monitor the lake's water levels to ensure that adequate water levels are maintained to support aquatic life in the lake outflows. These monitoring requirements are included under Part J, Item 10.

The total water use granted under the Licence 2BE-HOP0712 and subsequent amendments was three hundred and forty three (343) cubic metres per day, with 200 m<sup>3</sup>/day being limited to

seasonal withdrawal at Windy Lake for dust suppression purposes. The water volume and associated uses have been carried over to this renewal Licence as described in Part C, Item 1.

## **Waste Disposal**

### *Sewage Treatment*

The Waste Water Treatment Facility (WWTF), or sewage plant, has been relocated to the Boston Camp and as the Windy Camp is no longer occupied, there is currently no treatment or discharge of effluent associated with the Windy Camp.

### *Operation and Maintenance Manual*

Under Part E, Item 6, the NWB has required the Licensee to provide a revised Operations and Maintenance Manual for the Waste Water Treatment Facility upon re-opening a camp at Windy Lake and resuming exploration activities at the Hope Bay Regional Exploration Project. In addition to the referenced guidelines, the Manual shall also address discharge procedures for the WWTF and any erosion control measures that are, or can be put in place, a description of any wetland treatment/land application that is provided to the WWTF effluent prior to entering the lake and spill contingency procedures that are also to be included in the Spill Contingency Plan for the project.

### *Landfarm Facility*

The Landfarm at the Windy Project was constructed for the treatment of hydrocarbon contaminated soils from a spill that occurred on June 16, 2004 of approximately 19,000L of diesel fuel (Spill 04-388).

In the 2008 Annual Report, HBML indicated that the Landfarm at the Windy Camp was dismantled and that no monitoring had taken place as a result. The NWB had received correspondence previously from HBML during the technical review of the 2007 Landfarm Operations and Maintenance Manual that indicated plans to decommission the facility and ship the remaining soils off site for treatment. This was also confirmed in a letter from HBML to the NWB dated September 5, 2008, indicating that the soils had been removed as per the plans detailed in a letter of May 13, 2008 (this letter was never received or acknowledged by the NWB).

In a letter dated October 7, 2008, the NWB had requested that an Abandonment and Restoration Plan to be submitted specific for the Landfarm be submitted. There has been no Plan received by the NWB to date. Due to the lack of information and understanding of the actual decommissioning of the facility, the NWB has requested, under Part I, Item 5, that a final Landfarm closure report be filed with the NWB within ninety (90) days of issuance of this Licence, for review of the Board.

The contaminated soil from within the Landfarm was removed in July 2008 to be shipped south for treatment and the facility taken out of service, therefore the requirements for monitoring

have been removed from the renewal Licence. The Monitoring Station has been retained for future reference.

#### *Quarries A, B and D*

The Licence issued May 20, 2007 was amended on August 24, 2010 to include 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 the 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. If required, quarry sumps will be used to collect the water and settle out suspended solids.

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 and both INAC and EC indicated that the *Hope Bay Project Quarry A, B & D Management and Monitoring Plan* was acceptable. Part D, Item 24 was included in the amendment which required the submission of a revised Plan to address concerns raised during the review of the Application. A revised Plan was submitted on October 20, 2010 and following additional distribution requesting technical review of the Plan, was subsequently approved by letter May 24, 2011.

As stated in the Board's decision with respect to Amendment 4, the use of non-compliant effluent for all-weather road dust suppression is of concern to INAC and the NWB, and is not permitted without prior written authorization. This Plan is considered within the Licence conditions under Part D, Item 22 and is to be reviewed and revised if necessary in accordance with Part B, Item 7.

The Licensee is reminded, as with all discharges to the environment and possibly to waters frequented by fish, of the requirement to meet the Fisheries Act, sec 36(3)<sup>3</sup>

#### *Solid Waste Disposal*

The applicant has not indicated any change to the solid waste management practices at the Project. Bulky items will be stored onsite and eventually removed from site. The NWB has requested that the Licensee obtain written authorization from the intended facility owner prior to the transport and disposal of any solid waste to a facility. This is to include the intended recipient of the Landfarm materials being removed for further treatment. These requirements are reflected in the conditions of this Licence.

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<sup>3</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.

In addition, the Licensee is requested to develop its waste disposal practices and future abandonment and reclamation plans accordingly. This will involve the removal and disposal of all waste generated and materials to be removed upon closure to an appropriate disposal location unless otherwise approved by the Board.

## **Environmental Management**

### *Spill Contingency Plan (SCP)*

Comments and recommendations on the Spill Contingency Plan were received during the review period of the 2007 renewal and included those from Indian and Northern Affairs Canada (INAC), Government of Nunavut – Department of Environment (GN-DOE) and Environment Canada (EC). Within these submissions, requests were received that would require the Licensee to provide a stand-alone SCP for the Windy Camp and its regional exploration activities (including Patch Lake). The format included within the Environmental Protection Plan (EPP) provided a poorly formatted document in terms of spill contingency planning.

The SCP was reviewed by the Licensee and revised and updated SCPs were submitted with the 2007 and 2008 Annual Reports. In September 2009 a revised Plan was submitted and subsequently distributed for review and comments on November 26, 2009. On February 19, 2010, the NWB requested by letter, that HBML provide a revised, stand-alone SCP, taking into account the comments received during the review of the Plan. On March 29, 2010, HBML again submitted a revised SCP. On July 22, 2010, the NWB provided a letter to HBML, understanding that the Plan covered the Doris, Boston and Windy projects, and included a request to address several minor changes with respect to contact information. A revised Plan was again submitted on October 13, 2010 and an approval letter was issued October 28, 2010.

The NWB received an updated Spill Contingency Plan (September 2011) on February 1, 2012. This Plan once again, is a combined plan with the other Hope Bay Belt projects (Doris, Boston and Windy) and unfortunately does not contain adequate information on the Hope Bay Regional Exploration Project, which is supported by the current Licence for the Windy Camp and related activities. This Plan was not distributed for review and comment, however it was reviewed internally for completeness with respect to the current status of all the Hope Bay Belt components. It is recommended that the Plan be revised, to reflect the current status of all the Hope Bay Belt projects and include all necessary information on the Windy Hope Bay Regional Exploration Project, including complete component descriptions of facilities, fuel storage, maps, spill kits, etc., as would be required with a stand-alone plan. This requirement is included under Part H, Item 1.

### *Abandonment and Reclamation Planning (A&R Plan)*

During term of Licence 2BE-HOP0712, considerable changes have taken place with respect to the Windy Camp and the Hope Bay Regional Exploration Project. Prior to the renewal of the Licence, the project had been re-evaluated, with amendment requests to move the camp location and closing down of the Patch Lake Facility. The project has also been placed into

care and maintenance status along with all activity in the Hope Bay Project area under the control of HBML.

The Patch Lake bulk fuel storage diesel tanks were removed from the containment berm at HOP-6 and transferred to Doris North for temporary storage pending their utilization in other areas of the operation. During 2010, all bulk fuel storage tanks on the Hope Bay belt underwent integrity inspections by a professionally qualified company. These inspection reports are maintained at site with the HBML Facilities Department.

During 2010, a comprehensive work program was commenced in the main core storage areas, adjacent to Windy Camp. Core was secured, re-strapped, and mounted on pallets for removal with machinery once winter ground conditions permitted access to the area. At the end of 2010, all core within 30 m of the Windy lakeshore was ready for removal and relocation.

The original Windy Camp was closed for operations October 23, 2008. In 2010, the Windy Camp sewage treatment plant was removed and installed at the Boston Camp as part of an upgrade to that facility. As well, eight of the former Windy Camp cabins were removed in April-May 2010 and reused at Doris North as temporary offices and accommodations.

The Licensee submitted a closure plan for the Windy Operations, dated September 2007 and revised separate plans for the Windy Camp and the Patch Lake Facility on January 24, 2011. The Plans submitted January 24, 2011 were distributed for comment on February 23, 2011 and comments were received from the Kitikmeot Inuit Association, Indian and Northern Affairs Canada and Environment Canada. These comments covered a considerable scope of activities that were included in the Plans and identified significant deficiencies in the Plans as submitted. As such, the Board has requested, under Part I, Item 1, the submission of revised Plans that will take into consideration the comments provided during the technical review of the Plans and reflect the current status of the project under Care and Maintenance.

In addition to the closure plans for the Windy Camp and the Patch Lake Facility, the Board has included a requirement for the submission of a new reclamation and closure plan for the new Windy Camp, upon establishing the camp at the Quarry D location, or other location as approved by the Board. This is included in the Licence conditions under Part I, Item 3.

### **Other Applicable Legislation**

The Licensee is referred to the written submissions received during the public review period for this Application for renewal (as well as the previous application and subsequent amendment applications), specifically to the comments received by Environment Canada.

The Licensee is reminded that the compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all other applicable Federal, Territorial and Municipal legislation. Environment Canada has included the reminder to the Applicant that the Fisheries Act, Section 36(3) requires all wastes discharged to any waters, or where these wastes may enter water, be demonstrated to be non-toxic.

**LICENCE 2BE-HOP1222**

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

**HOPE BAY MINING LTD.**

\_\_\_\_\_  
(Licensee)

of

**300-889 HARBOURSIDE DRIVE, NORTH VANCOUVER, BC, V7P 3S1**

\_\_\_\_\_  
(Mailing Address)

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

**2BE-HOP1222**

Licence Number \_\_\_\_\_

**NUNAVUT 07**

Water Management Area \_\_\_\_\_

**HOPE BAY REGIONAL EXPLORATION PROGRAM**

Location \_\_\_\_\_

**WATER USE AND WASTE DISPOSAL**

Purpose \_\_\_\_\_

**MINING AND MILLING – TYPE “B”**

Classification of Undertaking \_\_\_\_\_

**THREE HUNDRED AND FORTY THREE (343)  
CUBIC METRES PER DAY**

Quantity of Water Not to Exceed \_\_\_\_\_

**JUNE 30, 2012**

Date of Licence \_\_\_\_\_

**JUNE 30, 2022**

Expiry Date of Licence \_\_\_\_\_

Dated this 30<sup>th</sup> day of June, 2012 at Gjoa Haven, NU.



\_\_\_\_\_  
Thomas Kabloona  
Nunavut Water Board  
Chair

**PART A: SCOPE, DEFINITIONS AND ENFORCEMENT**

**1. Scope**

This Licence allows for the use of water and disposal of waste for a Mining and Milling undertaking classified as per Schedule II of the Regulations at the Hope Bay Regional Exploration Project, located approximately 100 km south of Cambridge Bay and 50 km east of Umingmaktok within the Kitikmeot Region, Nunavut (within the general latitudes 68° 12' 29.89' to 67° 29' 9.58"N and general longitudes 106° 50' 33.21" to 106° 4' 18.48"W) and the new Windy Camp located at Lat. 64° 4' 8"N and Long. 106° 36' 35"W

Latitude: (68° 4' 17.654" N) Longitude: (106° 36' 36.544" W  
Windy Camp 2007

This includes the Windy Camp and associated infrastructure (fuel storage) including water intake at Windy Lake and a Waste Water Treatment Facility for treatment of camp sewage and greywater, the temporary use of water from Windy Lake and transport to the Doris Camp via winter road for potable use until the new treatment system is commissioned at the Doris Camp, Patch Lake Major Drilling facilities (and Bulk Fuel Storage) at the north end of Patch Lake, closure of the current Windy Lake Camp and Patch Lake Major Drilling infrastructure with the relocation of the bulk fuel storage facility tanks to the new Quarry D bulk fuel location, adjacent to the new camp

- i. This Licence is issued subject to the 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 or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and;
- ii. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

**2. Definitions**

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

**“Addendum”** means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report.

“**Amendment**” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

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

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

“**Board**” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Bulk Fuel Storage Facility**” means the fuel storage facilities, both at the Windy Camp and at Patch Lake, as described in the Renewal Application and supporting documents submitted March 12, 2007 or, upon closure of Patch Lake, means the fuel storage facility as described in SRK Consulting drawings WTF-01 to 06 dated April 20, 2010 submitted with the Amendment No.5 Application dated May 26, 2010.

“**Engineer**” means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

“**Greywater**” means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

“**High Water Mark**” means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);

“**ICP Scan**” means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including up to approximately 32 elements depending on the laboratory performing the analysis);

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

“**Landfarm**” means the storage facility as described in the Renewal Application and supporting documents (Landfarm questionnaire) submitted March 12, 2007, designed for the treatment of hydrocarbon contaminated soils;

“**Licensee**” means the holder of this Licence;

**“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;

**“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;

**“Regulations”** means the *Northwest Territories Water Regulations sor/93-303 8th June, 1993*, omitting Section 5, Water Use or Waste Deposit without a Licence;

**“Sewage”** means all toilet wastes and greywater;

**“Sludge”** means accumulated and concentrated solids removed from the Waste Water Treatment Facility;

**“Spill Contingency Plan”** means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

**“Sump”** means an excavation in impermeable soil for the purpose of catching or storing water or waste;

**“Toilet Wastes”** means all human excreta and associated products, but does not include greywater;

**“Waste”** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means.

**“Waste Water Treatment Facilities”** means the Rotating Biological Contact (ROTODISK™) facility as described in the Renewal Application and supporting documents submitted March 12, 2007, designed for the treatment of camp sewage and greywater or, when completed with the relocation of the Windy Camp to Quarry D, comprises the membrane bio-reactor and UV disinfection system and associated engineered structures and effluent discharge area designed to treat Sewage and greywater as described in the Amendment No. 5 Application, dated May 26, 2010.

### 3. Enforcement

- a. 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*;

- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. 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 water use fees, payable to the Receiver General for Canada, shall be sent to the Board annually in advance of any use in accordance with Sections 9 of the *Regulations*.
2. The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:
  - a. A summary report of water use and waste disposal activities;
  - b. A summary of all information requested and results of the Monitoring Program;
  - c. A list of unauthorized discharges and a summary of follow-up actions taken;
  - d. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by the Inspector;
  - e. An update to the Spill Contingency Plan, if required, including contact information in the form of an addendum;
  - f. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
  - g. 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;
  - h. a summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed; and
  - i. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.
3. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
4. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes as required under Part J, Item 1.
5. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan

if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.

6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
7. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
8. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
9. Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

**a) 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](mailto:licensing@nunavutwaterboard.org)

**b) Inspector Contact:**

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

10. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
11. 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.
12. This Licence is not assignable except as provided in Section 44 of the *Act*.

**PART C: CONDITIONS APPLYING TO WATER USE**

1. The Licensee shall obtain all water for domestic camp use from Windy Lake for the Windy Camp and Doris camp, not exceeding sixty three (63) cubic metres per day. Drill water shall be obtained from local water source(s), detailed on the June, 2007 drawing entitled “Hope Bay Exploration Drilling Water Sources”, and may include additional water bodies proximal to the drilling targets that possess a surface area greater than or equal to 15,000 m<sup>2</sup>, or as otherwise approved by the Board. The total volume of water for drilling purposes shall not exceed eighty (80) cubic metres per day. In addition, the Licensee shall obtain from Windy Lake, water for dust suppression on the Windy Lake all-weather road, not exceeding two hundred (200) cubic metres per day on a seasonal basis as required, from May through September. Total water use from all sources, for all purposes shall not exceed three hundred forty three (343) cubic metres per day.
2. Streams cannot be used as a water source unless authorized and approved by the Board.
3. If the Licensee requires water in sufficient volume that the source water body may be drawn down the Licensee shall, at least thirty (30) days prior to commencement of use of water, submit to the Board for approval in writing, information on the water body that includes, but is not limited to: volume of water required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
4. 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.
5. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.
6. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
7. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.
8. The Licensee shall provide written notice to the Inspector upon completion of the water treatment upgrades at the Doris Camp and cessation of domestic water use requirements from Windy Lake for the Camp.
9. Licensee shall provide written notice to the Inspector, at least five (5) days prior to any further requirement for water use from Windy Lake for domestic purposes at the Doris Camp. The notice shall include method of water taking, method of transport to the Camp, duration of water requirement and anticipated volumes required.

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

1. The Licensee shall locate areas designated for waste disposal, a minimum distance of thirty one (31) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise authorized by the Board.
2. The Licensee shall not practice open burning or on-site land filling of domestic waste, unless otherwise approved by the Board in writing.
3. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.
4. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.
5. The Licensee shall provide to the Board, documented authorization from the receiving community, prior to the backhauling of any non-hazardous waste for disposal at that community.
6. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation at an approved waste disposal site.
7. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
8. The Licensee shall direct all sewage and greywater to the Waste Water Treatment Facilities, (“WWTF”) as described in the application, unless otherwise approved by the Board.
9. The Licensee shall direct all effluent from the WWTF to a surge tank, prior to pumping and discharging the effluent approximately 300 metres over the ridge to the east of the camp facilities.
10. The Licensee shall discharge the effluent in Part D, Item 9 in such a manner to prevent surface erosion.

11. All effluent being discharged from the WWTF, monitoring station HOP-2 shall meet the following effluent quality standards:

Parameter	Maximum Allowable Grab Sample Concentration
BOD <sub>5</sub>	80 mg/L
Total Suspended Solids	100 mg/L
Fecal Coliforms	10,000 CFU/100mL
pH	No visible sheen 6-9
Oil and grease	*No visible sheen

12. The Licensee shall collect as required, all sludge generated by the Waste Water Treatment Facilities in 45 gallon drums and transport to the Boston Camp for proper disposal unless otherwise approved by the Board in writing.
13. The Licensee shall provide to the Board for approval in writing, at least four (4) months prior to any alternative means of sludge disposal, a proposal which shall address, but not be limited to:
- a. Location of disposal area;
  - b. Quantities and composition of sludge;
  - c. Mitigation measures to control run-off and restrict access;
  - d. A program for water quality monitoring;
  - e. An implementation schedule;
  - f. An executive summary of the proposal in English and Inuktitut.
14. The Licensee shall implement the proposal specified in Item 13 above, as and when approved by the Board.
15. If the Board does not approve the proposal referred to in this Part, the Licensee shall withdraw or revise this proposal and resubmit it to the Board for approval within two (2) months of receiving notification of the Board’s decision.
16. The Licensee shall provide at least ten (10) days written notice to the Inspector prior to any planned discharges from the Bulk Fuel Storage Facilities and Quarries A, B and D. This notice shall include the volume proposed for discharge and location, or intended use of effluent that meets the discharge criteria listed in Part D, Item 17.

17. All effluent from the Bulk Fuel Storage Facilities, monitoring stations HOP-5, HOP-6 and HOP-8 shall meet the following effluent quality standards:

Parameter	Maximum Allowable Grab Sample Concentration (ug/L)
Oil & Grease	15,000 and with no visible sheen
Benzene	370
Toluene	2
Ethylbenzene	90
Lead	1

18. 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 Allowable Grab Sample Concentration
pH	6.0 to 9.0	9.0
Electrical conductivity	500 $\mu$ S/cm	500 $\mu$ S/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

19. The Licensee shall establish and confirm compliance with Effluent quality limits of Part D, Items 17 and 18 prior to discharge.
20. All discharges shall be released in such a manner to minimize surface erosion. Upon confirming compliance required of Item 21, water to be released to the environment may be used for other industrial purposes upon written request to the Board, including use for dust suppression activities on roads and quarries as well as drilling.
21. In the event that Effluent planned for discharge exceeds the limits provided in Part D, Item 17 or Item 18, 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.
22. The Licensee shall implement the approved, revised *Hope Bay Project Quarry A, B & D Management and Monitoring Plan, dated October 20, 2010*.

23. The Licensee shall operate and maintain the WWTF and Bulk Fuel Storage Facilities to the satisfaction of an Inspector.
24. The proponent shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved treatment facility.

**PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS**

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. The Licensee shall provide at least thirty (30) days notification to the Board of plans to the plans to relocate and construct of the new Windy Camp, to be placed within the Quarry Site D, as indicated in the Amendment No. 5 Application to Licence 2BE-HOP0712.
3. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
4. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee should minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
5. With respect to access road, pad construction or other earthworks, 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 one (31) metres from the ordinary high water mark in such a fashion that they do not enter the water.
6. The Licensee shall submit to the Board for approval in writing, within sixty (60) days prior to occupying the Windy Camp and resuming exploration activity at the Hope Bay Regional Exploration Project, a revised Operation and Maintenance Manual for the Waste Water Treatment Facility that is specific to the facilities in use, prepared in accordance with the "*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories; 1996*" and adapted for the use of a mechanical sewage treatment facility.
7. The Licensee shall provide to the Board for review and approval, at least sixty (60) days prior to commencing construction of the Bulk Fuel Storage Facility at Quarry Site D, for construction drawings of the Bulk Fuel Storage Facility, stamped and signed by a Professional Engineer registered in Nunavut.

8. The Licensee shall provide to the Board, within ninety (90) days of completion of the construction of the New Bulk Fuel Storage Facilities at Quarry Site D all design drawings and construction reports, including as-built drawings, documentation of field decisions that deviate from original plans and any data used to support these decisions.

**PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS**

1. The Licensee shall not conduct any land based drilling within thirty one (31) metres of the ordinary high water mark of any water body, unless otherwise approved by the Board in writing.
2. The Licensee shall ensure that all drill waste, including water, chips, muds and salts (CaCl<sub>2</sub>) in any quantity or concentration from land-based and on-ice drilling, shall be disposed of in a properly constructed sump or an appropriate natural depression located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
3. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
4. 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.
5. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
6. For “on-ice” drilling where drill additives are not being used, return water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).
7. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.

**PART G: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities, Bulk Fuel Storage 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. 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
  - d. the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part G, Item 1 have 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 H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Licensee has submitted, September 23, 2011, a Spill Contingency Plan entitled *Hope Bay Project Spill Contingency Plan*, for the Hope Bay Project, which encompasses the Hope Bay Belt projects including Roberts Bay, the Doris, Boston and Windy camps. This Plan covers the Windy Camp with respect to care and maintenance of the site. The Licensee shall submit to the Board for approval in writing, within ninety (90) days of issuance of this Licence, a revised Plan that takes into consideration the status of the entire Hope Bay Belt project as it influences the activities, environmental and safety issues of the Windy Camp and the Hope Bay Regional Exploration Project.
2. Licensee shall submit to the Board for approval in writing, sixty (60) days prior to the resumption of exploration activity at the Hope Bay Regional Exploration Project, a revised Spill Contingency Plan that is specific to the scope of this Licence and prepared in accordance with the *Spill Contingency Planning and Reporting Regulations* developed under Section 34 of the *Environmental Protection Act*.
3. The Licensee shall, if not approved by the Board, revise the Plan referred to in Part H, Item 1, and resubmit to the Board for approval within thirty (30) days of receiving notification of the Board's decision.
4. The Licensee shall implement the Plan specified in Part H, Item 1 as and when approved by the Board
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 ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.
7. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.
8. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. Employ the Spill Contingency Plan;
  - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include 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.

**PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING**

1. The Licensee shall submit to the Board for approval in writing, within ninety (90) days of issuance of this Licence, revisions to the abandonment and restoration plans for both the Windy Camp and the Patch Lake Facility, dated January 2011 and submitted to the Board January 24, 2011. The revised, updated Plans are to be 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*, taking into account the comments received during the technical review distribution of February 23, 2011 and the current care and maintenance status of the project.
2. The Licensee shall, if not approved by the Board, revise the Plan referred to in Part I, Item 1, and resubmit to the Board for approval within thirty (30) days of receiving notification of the Board's decision.
3. The Licensee shall, upon re-establishing the Windy Camp at Quarry D or any other location as approved by the Board in writing, submit to the Board for approval in writing, within ninety (90) days of commencing activity at the Camp, an abandonment and restoration plan for the new Windy Camp. The Plan is to be 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*.

4. The Licensee shall provide to the Board for review, within ninety (90) days of issuance of this Licence, a final closure report for the Landfarm facility operated at the Windy Camp Regional Exploration Project, that includes, but not limited to:
  - a. the original design of the facility;
  - b. materials deposited for treatment;
  - c. treatment operations;
  - d. monitoring results and summary of effluent discharged, remaining soil quality, monitoring results of soil sampling from under the former facility;
  - e. consideration of options for further treatment and closure;
  - f. final closure and reclamation completed, and
  - g. future monitoring of the site.
5. The Licensee shall complete all restoration work prior to the expiry of this Licence.
6. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
7. When possible to do so, the Licensee shall backfill and restore, to the satisfaction of an Inspector, all sumps to the pre-existing natural contours of the land.
8. The Licensee shall remove from the site infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and equipment before the expiry of this Licence.
9. The Licensee shall ensure that all rinse water, used in the cleaning of drums that are crushed for final disposal, meets the effluent requirements of, and is discharged according to Part D, Item 17 or as otherwise approved by the Board.
10. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
11. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
12. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
13. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector.
14. ~~Drill holes and disturbed areas will be restored to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.~~ The Licensee

shall restore drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and, if having encountered artesian flow, the capping of holes with a permanent seal, as referred to under Part F, Item 3.

15. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created, or as directed by an Inspector.
16. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

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

1. The Licensee shall maintain Monitoring Program Stations at the following locations:

<b>Monitoring Program Station Number</b>	<b>Description</b>	<b>Status</b>
HOP-1	Raw water supply intake at Windy Lake.	Active (Volume)
HOP-2	WWTF effluent discharge at the surge tank prior to being pumped over the ridge east of the Windy Camp facilities.	Active
HOP-3	WWTF effluent at a point of entry into Windy Lake.	Active
HOP-4	Effluent from the Landfarm Treatment Facility pumped to the WWTF surge tank.	In-Active Landfarm removed in 2008
HOP-5	Effluent from the Bulk Fuel Storage Facility located at the Windy Camp, prior to release.	Active
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.	Active
HOP-7 A, B and D	Discharge from Quarries A, B and D respectively	Active
HOP-8	Effluent from the Bulk Fuel Storage Facility located at the NEW Windy Camp, prior to release	Active upon commissioning

2. Licensee shall sample at Monitoring Program Stations HOP-2 and HOP-3 monthly during discharge. Samples shall be analyzed for the following parameters:

Biochemical Oxygen Demand - BOD  
 Total Suspended Solids  
 Oil and Grease (visual)

Fecal Coliforms  
 pH

3. The Licensee shall conduct toxicity testing to demonstrate Non-Acute Toxicity of the effluent discharged from the WWTF, at Monitoring Station HOP-3, to be conducted in accordance with the following test procedures and carried out once annually during open water season:

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

4. Licensee shall sample at Monitoring Program Stations HOP-5, HOP-6 and HOP-8 monthly during removal of water from the facilities. Samples shall be analyzed, for the following:

TPH (Total Petroleum Hydrocarbons)  
 PAH (Polycyclic Aromatic Hydrocarbons)  
 BTEX (Benzene, Toluene, Ethylbenzene, Xylene)

Nitrate-Nitrite	Oil and Grease
Total Phenols	Total Alkalinity
Total Hardness	Calcium
Magnesium	Potassium
Sodium	Sulphate
Total Arsenic	Total Cadmium
Total Copper	Total Chromium
Total Iron	Total Lead
Total Mercury	Total Nickel

5. The Licensee shall carry out an annual inspection of the quarries associated with Monitoring Program Stations HOP-7A, B and D, and in the event that the inspection identifies ponded water, carry out the monitoring as identified in the approved quarry management and monitoring plan, under Part D, Item 18.

6. 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 18; and
- b. Total Sulphate, Nitrate, Alkalinity, ICP Metals analysis, and Reduction potential (Eh).

7. Licensee shall obtain representative samples of the water column below any ice where required under Part F, Item 7. Monitoring shall include but not be limited to the following:
  - Total Suspended Solids
  - pH
  - Electrical Conductivity, and
  - Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and
  - Trace Arsenic and Mercury
8. The Licensee shall measure and record, in cubic metres, the daily quantities of water used for Camp, drilling and for all other purposes. The use of Windy Lake as a temporary water source for the Doris Camp shall be recorded and reported as a separate use within the annual report required under Part B, Item 2(i). In addition, the daily quantities of water used for drilling shall be recorded for each water source used in accordance with Part C, Item 1.
9. The Licensee shall monitor water levels in Windy Lake during open water, in order to verify that additional water withdrawal for dust suppression activities does not result in drawdown beyond naturally occurring levels.
10. The Licensee shall measure and record, in cubic metres, the daily quantities of effluent discharged at Monitoring Program Station HOP-3 as well as volumes pumped Stations HOP-5, HOP-6, HOP-7A, B and D and HOP-8.
11. The Licensee shall measure and record, in cubic metres, the annual quantity of Sludge removed from the WWTF.
12. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes and provide the necessary information to confirm compliance under Part C, Item 1, with respect to the water body surface area for water sources used to support drilling.
13. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where wastes associated with camp operations and drilling operations are deposited.
14. The Licensee shall implement the *Hope Bay Mining Limited, Quality Assurance and Quality Control Plan R5, for the Windy Lake Camp and the Patch Lake Fuel Farm Area, dated December 31, 2010*, prepared in accordance with the INAC document “*Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class “B” Licensees in Collecting Representative Water Samples in the Field, 1996*” approved by an Analyst on July 4, 2011.

15. The Licensee shall annually review the approved Quality Assurance/Quality Control plan and modify it as necessary. Proposed modifications shall be submitted to an Analyst for approval.
16. The approved Quality Assurance/Quality Control Plan shall be submitted to the Board for review and implemented as approved by an Analyst.
17. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of Standard Methods for the Examination of Water and Wastewater, or by such other methods approved by the Board.
18. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
19. An Inspector may impose additional monitoring requirements.
20. A Monitoring Program summary report shall be submitted to the Board for review within thirty (30) days following the month being reported. This summary shall include, at a minimum, the monitoring results of Part J, Items 2 through 8 inclusive.
21. The Licensee shall include in the Annual Report required under Part B, Item 2, all data, monitoring results and information required by this Part.