

NWB Annual Report

Year being reported: 2009



License No: 2BE-HOP0712

Issued Date: May 20, 2007

Expiry Date: June 30, 2012

Project Name: Hope Bay Regional Exploration Project

Licensee: Hope Bay Mining Ltd.

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

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

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-HOP0712 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:	20 cu.m/day	Quantity Allowable Domestic (cu.m)
	19.9 cu.m/day	Actual Quantity Used Domestic (cu.m)
	80 cu.m/day	Quantity Allowable Drilling (cu.m)
	4.7 cu.m/day	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

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

Fuel Farm Berm Effluent

Additional Details:

When Windy Camp is operating, water for domestic use is obtained from Windy Lake via a 2 inch diameter submerged pipe with a DFO compliant fish screen. This intake pipe is linked to a pumphouse located approximately 30 metres from shore. Water used for drilling is taken from the closest lake, usually Patch or Doris Lakes, 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.

Water was not used at Windy Camp for domestic purposes in 2009, as the camp was closed, but due to emergency circumstances with drinking water quality from Doris Lake, water was extracted from Windy Lake and trucked to Doris Camp via the winter ice road from March to May 2009. Water volumes extracted from Windy Lake for domestic use at Doris Camp and reported against the Hope Bay Water Licence were in accordance with the May 4, 2009 Amendment 2 of the 2BE-HOP0712 licence. Use of Windy Water was allowed prior to the amendment by the NWB because of the public health issues involved and was subsequently formalized by Amendment 2.

Waste produced on site is generally treated according to Part D of the license, 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 license are being stored at Doris by Quarry 2 and near Windy camp in Trench #1. These cuttings are planned to be used as part of the reclamation program for historical drill holes from the previous drilling contractor.
- Sewage and greywater produced onsite is directed to the Waste Water Treatment Facilities as per Part D Item 7. Sludge produced by the treatment plant is burned in the incinerator.
- Hazardous materials such as waste oil, glycol, and contaminated soil are being shipped offsite for disposal at an approved facility as per Part D Item 5.
- Berm effluent is sampled for water quality against the discharge 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 remediated 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)

Less than one litre of antifreeze spilled from the overflow radiator hose. The route cause of the incident was a change to the Marook 1500 radiator shield to keep it warm for travel between Boston and Doris Camp. The area was marked off and the impacted snow removed for disposal. The Marooka was fixed immediately. No further follow-up required.

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)

Drill cuttings we spilled on the ice at GeoTech Rig #2 on Patch Lake. The cuttings were bagged and removed for disposal at Trench # 2 Naartok west.

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

Date of Spill:

Date of Notification to an Inspector:

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

At Geotech Rig # 1 Hole # 09PSD163 on Patch Lake a hydraulic fluid leak of approx 22L occurred. A leak was noted at night in the drill engine and sorbent pads were used to clean up the fluid. The next day, some fluid was noted on the ice under the drill. This was chipped up and contained for disposal.

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)

The fuel tank nozzle at Orbit Drill # 23 Hole # 09TDD663 on Doris Lake overflowed the bucket mount and flowed onto the ice. The estimated spill was 95 L. The contaminated snow/ice was scraped up for disposal. A new drip control system for the fueling nozzle was devised and additional valves installed on the fuel dispensing hose. The Spill Hotline was called at 7:45pm April 7/09 and the NT-NU Spill REport form was faxed to 1(867)873-6924 at 7:41pm April 7/09.

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

Date of Spill:

Date of Notification to an Inspector:

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

During a transfer of waste oil from a Geotech Rig # 1 on Patch Lake, the pumping process overflowed approx 35 L onto the ice. The operator overestimated the tank capacity and left the process unattended temporarily. A review of proper fuel handling procedures and attention to process was undertaken with the employee. The contaminated ice was scraped up and contained for disposal.

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

Date of Spill:

Date of Notification to an Inspector:

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

An uncontrolled release occurred from Windy Fuel Farm berm HOP-5 when water from overland runoff filled the berm. Minor leakage occurred over the top of the downslope edge of the berm. The effluent overflow was minor and did not reach any water course. A trench was installed to route overland water flow away from the berm.

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)

Inspection of all drill sites on Patch and Doris Lakes revealed small fluid spills and leaks of various types: some hydrocarbon based, some non-hydrocarbon-based (vegetable rod grease) Doris Lake = 4 sites, Patch Lake = 6 sites. Teams of workers were deployed to clean all drill holes using sorbent pads. Drill closure procedures for winter will be modified to ensure each hole is fully scraped and cleaned ASAP after drilling is completed and as soon as practicable due to using heavy machinery on curing ice.

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

Date of Spill:

Date of Notification to an Inspector:

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

A nozzle at Patch Fuel Farm tank # 5 was observed to be dripping (est. <1L). Absorbent mat was placed under the hose reel, and a drip control barrel was installed for secure placement of the fuel nozzle.

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

Date of Spill:

Date of Notification to an Inspector:

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

A hydrocarbon sheen was noted on Doris Lake (July 8, 2009), likely associated with old ice drilling hole. Ice conditions prevented boat-based clean-up attempts until July 10. Sorbent pads were deployed to soak up the sheen.

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

Date of Spill:

Date of Notification to an Inspector:

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

A nozzle at Patch Fuel Farm kicked out of fuel tank while being refueled in berm (<5L). Spill was cleaned and absorbent matting disposed of. Operator reviewed procedures to fully secure nozzle before fuelling and remain in attendance at all times.

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

Date of Spill:

Date of Notification to an Inspector:

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

Minor leak occurred on a helicopter while in the field at Orbit 24. A leaky booster pump seal leaked < 1c. of fuel on to tundra. The helicopter was removed from service for repairs. No recovery was possible.

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

Date of Spill:

Date of Notification to an Inspector:

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

At Geotech Drill #2 Hole 09HTD002 and estimated 10L of hydraulic fluid was spilled due to a blown seal on the shaft. Hydraulic oil spilled onto and under drill floor. Machinery was shut down and repaired. Sorbent pads were placed on area. Follow-up was conducted Aug 7/09 by HBML Drill Services Manager once the drill was moved. A minor clean-up of some residue was required.

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)

Approximately 100-200lbs of cuttings spilled from a megabag when it snagged on a rock while slinging away from a drill. Cuttings were cleaned up for removal for appropriate disposal.

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)

Approximately 250 mL of oil spilled into Reference Lake B from boat motor. The oil reservoir had been overfilled. Spill pads were used to contain and clean up spill. A line was marked on the oil reservoir to prevent overfilling.

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)

Megabag containing approximately 600 lbs. of drill cuttings ripped and released contents over the tundra while it was being slung by helicopter. Incident occurred beside Wolverine Lake. Clean-up could not be effected as the cuttings were distributed over the tundra.

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

Other: (see additional details)



Additional Details:

A revised Spill Contingency Plan, with corrections made based on NWB correspondence of March 4, 2008, and Jan. 6, 2010, is included with this annual report submission as suggested in the Feb. 19, 2010 letter. (...continued)

Below are the key corrections made, based on the Jan. 6, 2010 letter, and their location in the revised plan:

1. MSDS sheets are kept up-to-date on site.
2. See Fig. 14.
3. See Fig. 14.
4. See Fig. 14 and 15.
5. See Fig. 15.
6. See footnote on p. 52.
7. See Appendix C.

Below are the key corrections made, based on the March 4, 2008 plan, that were not superseded by the Jan. 6, 2010 letter:

- See p. 19 for geographic coordinates of Boston Camp.
- See p. 49 for reference to GN-DOE's comment about the movement of hazardous waste.
- See p. 10 for reference to skimmer on site.
- See p. 21 for information about toxic chemicals.

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

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

Additional Details:

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

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

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

During 2009, the Windy Bulk Fuel Storage diesel tanks were removed from the containment berm at HOP-5 for transfer and use at Doris North operations.

At Patch Lake Fuel Farm, the entire Major shop facility was dismantled for removal. All associated contractor equipment and materials were packaged for staging at Rob 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.

Reclamation work on-going under the regional licence is the clean-up of land-based and winter ice drilling sites. Upon completion of a winter ice drilling hole the drill crew cleans the site and removes all drill equipment. Drill cuttings are contained throughout the drilling process, dewatered and taken to a designated site on land. Due to safety concerns, the contractor may need to wait until the drill site refreezes for the final clean up. Following clean up by the drill crew, an inspection is made by the environmental department (ESR) or the Newmont Drill Services Manager. If further clean up is required an inspection report stating the corrective actions is generated and follow up is performed by the drill contractor. Follow up inspections are then conducted by ESR or the Newmont Services Manager.

Summer land-based drill site reclamation efforts involve complete clean-up of each drill site with back-filling of drill holes with cuttings, cutting and permanently capping casings, and tundra stabilization using coconut fibre matting and peat moss. Every land-based drill hole on the belt in 2009 was inspected at the end of season by ESR and any outstanding clean-up was performed.

F. Results of the Monitoring Program Part J, items 1-8] including:

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:

Water was utilized from Windy Lake as an emergency drinking water source for the Doris Camp as noted above, between March and May of 2009. The geographical co-ordinates of the Windy Lake extraction point through the ice was: N 68° 03.681' W 106° 37.293'.

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 as the Windy Camp was closed in 2009 and these facilities were not operational. Discharges did not occur at the monitoring station HOP-4 as the Landfarm at the location was dismantled in 2008.

Water quality was sampled and discharges occurred in compliance with the licence for monitoring stations HOP-5 and HOP-6. Details of discharge locations are in the summary report attached.

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

No additional sampling requested by an Inspector or the Board



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

N/A

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

No additional sampling requested by an Inspector or the Board



Additional Details: (Attached or provided below)

N/A

H. Any responses or follow-up actions on inspection/compliance reports [see Part B Item 7(xi)]

No inspection and/or compliance report issued by INAC ▼

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

N/A

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-HOP0712.

Date Submitted:

March 31, 2010

Submitted/Prepared by:

Chris Hanks

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Fax: (604) 980-0731

email: chris.hanks@newmont.com

GPS Coordinates for water sources utilized

[illegible]

GPS Locations of areas of waste disposal

[illegible]



**2009 2BE-HOP0712 Type B Water License
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 2010

Executive Summary

2BE-HOP0712 Annual Report

Hope Bay Mining Ltd. (“HBML”) has filed its Annual Report on its activities during 2009 under Water Licence No. 2BE-HOP0712 issued by the Nunavut Water Board on May 27, 2007. Note in 2008 this licence was transferred from the previous owner, Miramar Hope Bay Mining Ltd., to HBML. As set out in Part B 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-HOP0712 Ukeogoagaagan Unipkaak**

Hope Bay Mining Ltd.-kon (“HBML”) tonihihimaliktun Ukeotoagaagan Unipkamiknik havaamigun 2009-mi ukeommi ilagani Imaknik Atogeagani Laeseoyum Napaa 2BE-HOP0712 toniyaohimayok Nunavumi Imalikiyin katimayenin May 27-mi 2007-mi. Kaoyimalogo 2008-mi una laeseoyok nuhimayok hivoagun nanminikaktugaloamin, Miramar-konin Kapihiliktumi Oyagaktakvik-kunin ukunuga HBML-kunin. Okakhimayumi Naonaepkun B-mi, Ilikuktok 1 Laeseoyumi, unipkak ilakaktok hivunikhivotikhanik ukununa:

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

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Appendix A: Annual Monitoring Report – 2BE-HOP0712

1. A summary of results of Monitoring Program [see Part B Item 2 (ii) and Part J Item 18]

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

2. 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 (iv)]

No inspection report was issued by the Inspector in 2009 and as such, there are no follow-up actions to report. HBML, however, sent a letter to the Inspector dated July 14, 2009, summarizing some of the points of discussion between the Inspector and site ESR staff during the inspection that took place on July 9, 2009. The following is a summary of the items that were discussed/clarified relating to this license.

- The discharge of water being stored in the tank farm berm and the final tank of the Windy STP was discussed. HBML wanted to know whether this water could be discharged to the slope of Windy Pass instead of HOP-2. The inspector indicated that this would be acceptable if the water met all license discharge requirements. HBML agreed to provide the inspector with the appropriate notifications before releasing the water once the water had met the discharge criteria.
- The management of drill cuttings on the Hope Bay belt was discussed, specifically, the disposal of drill cuttings around drill collars to prevent the collection of water following drill hole completion. Based on Part F Item 2 of the license, HBML believes that this is an appropriate way of managing drill cuttings.

General observations by the inspector include:

- Status and condition of spill response kits.
HBML action: All spill kits have been opened, inventoried, and supplemented where necessary.
- Need for additional clean-up at Patch Lake, Boston, and Windy surface facilities.
HBML action: Clean-up of sites continued throughout the summer and plans were put in place for the annual clean-up of Boston and Windy.
- Fuel weeping from threaded joint on tank fuel dispensing unit inside Patch Lake Fuel Containment Area.
HBML action: Plumbers repaired the fueling systems to correct the issues.
- Labeling of drums containing waste.
HBML action: New colour coded barrel labels with space for extra information are being used. Different colours identify hazardous from non-hazardous waste. Additional contractors have been brought onto the belt to ensure proper labeling of waste materials.

INAC has also reviewed one of the monthly monitoring reports and provided comments. The following is a summary of these.

Aug. 20, 2009 (Re: June 2009 Monitoring Report)

- INAC requested that an A&R Plan/Report for the Windy land farm, with detailed description including photo documentation of the closure and decommissioning work carried out at the former land farm site, be submitted.

HBML Action: A closure report describing the work done at the Windy Camp land farm will be available in the second quarter of 2010. This report will be sent to the board for review and documentation.

- INAC requested that HBML provide written notice to the INAC inspector at least 15 days prior to any planned discharges of water originating from the bulk fuel storage facility.

HBML Action: The quality and quantity of any water requiring discharge from fuel berms is sent to the inspector 15 days prior to discharge.

3. An up-to-date copy of the Spill Contingency Plan, including contact information [see Part B Item 2 (v)]

HBML submitted an updated Spill Contingency Plan to the NWB on September 30, 2009. This plan revised the previous plan submitted on September 24, 2007. Correspondence received from the NWB on January 6, 2010 and February 19, 2010, highlighted corrections to be made to the September 2009 plan. HBML is submitting a plan with this annual report that includes the suggested edits.

4. 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 (vi)]

Please refer to Item E of the Annual Report Form for a description of progressive reclamation undertaken in 2009 as part of this license.

5. 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 (vii)]

Windy Camp was closed on October 23, 2008 and was not reopened in 2009. No modification and/or maintenance work was carried out on the Water Supply and the Waste Disposal Facilities in 2009.

6. 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 viii)]

No specific studies or reports were requested by the Board in 2009 and no studies are planned or proposed for 2010.

7. 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]

The majority of drill holes in the Hope Bay Belt do not go deep enough to penetrate below the permafrost layer. For the Hope Bay Project, depth of permafrost is therefore calculated using thermistor strings that measure ground temperature, installed mainly in geotechnical drill holes. Results 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. Although thermistor monitoring data was collected in 2009, no interpretation of this data has been undertaken in 2009.

Appendix A

Annual Monitoring Report – 2BE-HOP0712

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-HOP0712.

The camp and wastewater treatment facility (WWTF) under the Windy Exploration licence were not operational in 2009, therefore no monitoring was conducted at 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 was dismantled in 2008; no sampling was conducted at the monitoring station associated with this facility, HOP-4. The Bulk Fuel Storage tanks at Windy Camp were moved in winter 2009 to the Doris North camp for utilization there, though the containment berm has not been dismantled and monitoring point HOP-5 remains. Patch Lake Bulk Fuel Storage Facility was in use all year, and monitoring was conducted at sample point HOP-6. Samples were taken of effluent from those facilities in June, July and September during periods when they were not frozen, and prior to any planned discharges. Sample results for HOP-5 and HOP-6 are summarized in Table 1.

Water quality samples were taken in June at HOP-5 (Bulk Fuel Storage – Windy Camp) from untreated water in the berm. Effluent met the licence criteria for discharge on all parameters with the exception of lead, which was just slightly over the compliance value. No water removal from HOP-5 occurred during the period. The water in this berm was run through an oil/water separator and filtration system and the treated effluent was re-sampled the following month. Water quality results from the July samples at HOP-5 met the licence criteria for discharge on all parameters, and discharge commenced July 18, 2009 after notification to the Inspector. The location of discharge was a point on the adjacent hillside agreed on with the INAC inspector on site at the time as an alternative to pumping to the discharge point for HOP-2 (WWTF).

Water quality samples were taken in June at HOP-6 (Bulk Fuel Storage – Patch Lake) and effluent was found to be in compliance with the criteria for discharge. A notification to discharge was provided to the Inspector and discharge occurred (pumping and via gravity feed) to the south and west of the fuel berm down the rock wall on to the tundra at geographical coordinate location: 68° 04' 23" N 106° 35' 26" W

Sampling of HOP-5 and HOP-6 also occurred in September. Monitoring Station HOP-5 was found to be compliant for discharge on all parameters, but the Patch Lake Monitoring Station HOP-6 was non-compliant for visible sheen. Two temporary fuel drum storage berms were also sampled in September at the Windy Camp upper laydown area, but this effluent was found to be non-compliant for lead. No discharges occurred from any of these facilities before winter set in and the effluent became frozen, although the temporary berm effluent was transferred to a containment tank for winter for filtration and treatment in spring 2010.

In accordance with Part F: Item 7 and Part J: Item 5, samples were taken to establish water quality prior to and upon completion of the 2009 drilling program on Doris Lake. Pre-drilling samples were taken on Doris Lake before drilling commenced January 21,

2009 and post-drilling samples were taken in June after the drill program was completed May 31, 2009. Samples were not taken prior to start of drilling on Patch Lake Feb 28, 2009, due to an error, but samples were taken in March and then post-drilling samples were collected in June 2009 once drilling on that lake was complete (June 8, 2009). Sample results can be found in Tables 2 through 5.

Table 1 - Summary of monitoring information gathered for HOP-5 and HOP-6 in 2009 in mg/L.

Month	Status	Date	Parameter	Sample Sites			
				HOP-5	HOP-6	Temp Berm #1	Temp Berm #2
January	No Discharge/Stations Frozen	-		-	-	-	-
February	No Discharge/Stations Frozen	-		-	-	-	-
March	No Discharge/Stations Frozen	-		-	-	-	-
April	No Discharge/Stations Frozen	-		-	-	-	-
May	No Discharge/Stations Frozen	-		-	-	-	-
June	Sampling/Effluent Discharge	14June09/11June09	Oil and Grease	<1.0	<1.0	-	-
		14June09/11June09	Oil and Grease – visible sheen	nvs*	nvs	-	-
		14June09/11June09	Benzene	<0.00050	<0.00050	-	-
		14June09/11June09	Toluene	<0.00050	<0.00050	-	-
		14June09/11June09	Ethylbenzene	<0.00050	0.00062	-	-
		14June09/11June09	Lead	0.00104	0.00080	-	-
July	Sampling/Effluent Discharge	8July09	Oil and Grease	<1.0	-	-	-
		8July09	Oil and Grease – visible sheen	nvs	-	-	-
		8July09	Benzene	< 0.00050	-	-	-
		8July09	Toluene	< 0.00050	-	-	-
		8July09	Ethylbenzene	< 0.00050	-	-	-
		8July09	Lead	<0.00010	-	-	-
August	No Sampling/No Discharge	-				-	-
September	Sampling/No Discharge	8Sept09	Oil and Grease	<1.0	<1.0	<1.0	1.2
		8Sept09	Oil and Grease – visible sheen	nvs	visible sheen	nvs	visible sheen
		8Sept09	Benzene	<0.00050	<0.00050	<0.00050	<0.00050
		8Sept09	Toluene	<0.00050	<0.00050	<0.00050	<0.00050
		8Sept09	Ethylbenzene	<0.00050	<0.00050	<0.00050	<0.00050
		8Sept09	Lead	<0.001	0.00039	0.0262	0.0406
October	No Discharge/Stations Frozen	-		-	-	-	-
November	No Discharge/Stations Frozen	-		-	-	-	-
December	No Discharge/Stations Frozen	-		-	-	-	-

*nvs = no visible sheen

Table 2 - Water Quality Samples Taken from Doris Lake Pre-Ice Drilling in January 2009 in mg/L

Parameters		Doris Lake	Doris Lake	Doris Lake	Doris Lake	Doris Lake	Doris Lake	Doris Lake	2BE-HOP0712
Water Source		Doris # 1	Doris # 2	Doris # 3	Doris # 4	Doris # 5	Doris Lake	Doris Lake	Compliance Values ¹
Field Sample Details									Part F: Item 7
Date		Jan 20/2009	Jan 20/2009	Jan 20/2009	Jan 20/2009	Jan 20/2009	Jan 20/2009	Jan 20/2009	
Geographical Coordinates		68° 7.913'N 106° 35.753'W	68° 7.949'N 106° 35.707'W	68° 7.982'N 106° 35.699'W	68° 7.714'N 106° 35.518'W	68° 7.467'N 106° 35.430'W	68° 7.467'N 106° 35.430'W	68° 6.924'N 106° 35.263'W	
ALS Lab Reference #		L727219-1	L727219-2	L727219-3	L727219-4	L727219-5	L727219-6	L727219-6	
TSS		<3	<3	4	<3	<3	<3	<3	*
pH		7.2	7.2	7.2	7.3	7.3	7.3	7.3	No Guidelines
Electrical Conductivity		335	343	331	333	330	331	331	No Guidelines
Mercury		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	No Guidelines
Iron		0.036	0.061	0.023	0.022	0.026	0.026	0.026	No Guidelines
Manganese		0.002	0.003	0.001	0.001	0.001	0.001	0.001	No Guidelines
Aluminium		<0.02	0.04	0.03	0.02	0.03	0.03	<0.02	No Guidelines
Arsenic		0.0006	0.0009	0.0007	0.0007	0.0008	0.0008	0.0005	No Guidelines
Barium		0.0038	0.0047	0.0041	0.0034	0.0034	0.0034	0.0037	No Guidelines
Beryllium		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	No Guidelines
Bismuth		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	No Guidelines
Cadmium		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	No Guidelines
Cobalt		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	No Guidelines
Chromium		0.0009	0.0017	0.0011	<0.0008	<0.0008	<0.0008	<0.0008	No Guidelines
Copper		0.002	0.017	0.003	0.003	0.003	0.003	0.002	No Guidelines
Lithium		-	-	-	-	-	-	-	Not Reported ²
Molybdenum		0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0002	No Guidelines
Nickel		0.0008	0.0021	0.0009	0.0009	0.0017	0.0017	0.0008	No Guidelines
Lead		0.0003	0.0032	0.0002	0.0002	0.0002	0.0002	0.0004	No Guidelines
Antimony		<0.0004	0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	No Guidelines
Selenium		0.0009	0.0010	0.0009	0.0009	0.0006	0.0006	0.0009	No Guidelines
Tin		<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	No Guidelines
Strontium		0.0742	0.0471	0.0483	0.0477	0.0480	0.0480	0.0460	No Guidelines
Titanium		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	No Guidelines
Thallium		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	No Guidelines
Uranium		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	No Guidelines
Vanadium		0.0005	0.0008	0.0008	0.0008	0.0009	0.0009	0.0003	No Guidelines
Zinc		0.906	0.048	0.100	0.082	0.031	0.031	0.030	No Guidelines

² This has been corrected with the lab and they will now process samples to include lithium analysis

Table 3 - Water Quality Samples Taken from Patch Lake Pre-Ice Drilling in March 2009 in mg/L

Parameters		2BE-HOP0712						
Date	Mar 24/09	Mar 24/09	Mar 24/09	Mar 24/09	Mar 24/09	Mar 29/09	Mar 29/09	
Water Source	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Compliance Values
Field Sample Details	Patch Lake #1	Patch Lake #2	Patch Lake #3	Patch Lake #4	Patch Lake #5	Patch Lake #6	Patch Lake #7	Part F: Item 6 and 7 Part J: Item 5
Geographical Coordinates	68° 03.775' N 106° 33.994' W	68° 03.235' N 106° 33.626' W	68° 02.977' N 106° 33.532' W	68° 02.888' N 106° 33.499' W	68° 02.366' N 106° 32.994' W	68° 01.964' N 106° 32.773' W	68° 01.807' N 106° 32.717' W	
ALS Lab Reference #	L745995-1	L745995-2	L745995-3	L745995-4	L745995-5	L747348-6	L747348-7	
TSS	<3	<3	<3	<3	<3	<3	<3	*
pH	7.4	7.5	7.35	7.5	7.6	7.61	7.64	No Guidelines
Electrical Conductivity	585	549	531	529	499	492	497	No Guidelines
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	No Guidelines
Iron	0.052	0.048	0.050	0.031	0.043	0.0364	0.0340	No Guidelines
Manganese	0.006	0.005	0.006	0.002	0.003	0.0024	0.0024	No Guidelines
Aluminium	0.04	0.05	0.06	0.07	0.08	0.079	0.079	No Guidelines
Arsenic	0.0008	0.0008	0.0009	0.0009	0.0009	0.00064	0.00065	No Guidelines
Barium	0.0077	0.0063	0.0065	0.0061	0.0061	0.0057	0.0057	No Guidelines
Beryllium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0010	<0.0010	No Guidelines
Cadmium	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	No Guidelines
Cobalt	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0020	<0.0020	No Guidelines
Chromium	0.0015	0.0019	0.0027	0.0039	0.0035	<0.0050	<0.0050	No Guidelines
Copper	0.002	0.002	0.002	0.002	0.002	0.0019	0.0023	No Guidelines
Lithium	0.0102	0.0091	0.0097	0.0093	0.0085	<0.010	<0.010	No Guidelines
Molybdenum	0.0002	0.0002	0.0002	0.0002	0.0003	<0.0050	<0.0050	No Guidelines
Nickel	0.0011	0.0010	0.0012	0.0010	0.0010	<0.0020	<0.0020	No Guidelines
Lead	<0.0001	<0.0001	<0.0001	0.0002	0.0001	<0.00010	0.00016	No Guidelines
Antimony	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.00040	<0.00040	No Guidelines
Selenium	0.0009	0.0008	0.0010	0.0010	0.0008	0.00157	0.00141	No Guidelines
Tin	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.050	<0.050	No Guidelines
Titanium	<0.005	<0.005	<0.005	<0.005	<0.005	0.0014	0.0010	No Guidelines
Thallium	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00010	<0.00010	No Guidelines
Uranium	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00010	<0.00010	No Guidelines
Vanadium	0.0003	0.0006	0.0008	0.0009	0.0010	<0.0010	<0.0010	No Guidelines
Zinc	<0.004	<0.004	<0.004	<0.004	<0.004	<0.0040	0.0920	No Guidelines

Table 4 - Water Quality Samples Taken from Doris Lake Post-Ice Drilling in June 2009 in mg/L

Parameters		2BE-HOP0712						Compliance Values
Water Source	Doris Lake	Doris # 1	Doris # 4	Doris Lake	Doris # 5	Doris Lake	Doris # 6	Doris Lake
Field Sample Details	Doris # 1	Doris # 4	Doris # 5	Doris # 6	Doris # 6A	Part F: Item 7		
Date	June 9/09	June 9/09	June 9/09	June 9/09	June 9/09			
Geographical Coordinates	68° 7.913'N 106° 35.753'W	68° 7.714'N 106° 35.518'W	68° 7.467'N 106° 35.430'W	68° 6.924'N 106° 35.263'W	68° 6.082'N 106° 34.655'W			
ALS Lab Reference #	L775976-13	L775976-14	L775976-15	L775976-16	L775976-17			
TSS	3.5	<3.0	3.0	<3.0	<3.0	*		
pH	7.36	7.32	7.35	7.35	7.44	-		
Electrical Conductivity	287	282	324	289	303	-		
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-		
Iron	0.0425	0.0375	0.0504	0.0349	0.0329	-		
Manganese	0.0060	0.0069	0.0058	0.0046	0.0035	-		
Aluminium	0.018	0.012	0.016	0.013	0.024	-		
Arsenic	0.00070	0.00063	0.00079	0.00064	0.00072	-		
Barium	0.0035	<0.0030	0.0035	<0.0030	0.0030	-		
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-		
Bismuth	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-		
Cadmium	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-		
Cobalt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-		
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-		
Copper	0.0018	0.0015	0.0019	0.0016	0.0017	-		
Lithium	<0.010	<0.010	<0.010	<0.010	<0.010	-		
Molybdenum	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-		
Nickel	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-		
Lead	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-		
Antimony	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	-		
Selenium	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	-		
Tin	<0.050	<0.050	<0.050	<0.050	<0.050	-		
Strontium	0.0437	0.0408	0.0489	0.0436	0.0456	-		
Titanium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-		
Thallium	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-		
Uranium	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-		
Vanadium	0.0011	<0.0010	0.0011	0.0011	0.0011	-		
Zinc	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	-		

Table 5 - Water Quality Samples Taken from Patch Lake Post-Ice Drilling in June 2009 in mg/L

Parameters							2BE-HOP0712
Water Source	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Patch Lake	Compliance Values
Field Sample Details	Patch Lake 1B	Patch Lake 2B	Patch Lake 3B	Patch Lake 4B	Patch Lake 5B	Patch Lake 5B	Part F: Item 7
Date	June 9/09	June 9/09	June 9/09	June 9/09	June 9/09	June 9/09	
Geographical Coordinates	68° 03.775'N 106° 33.944'W	68° 03.488'N 106° 34.749'W	68° 03.097'N 106° 33.718'W	68° 02.632'N 106° 33.138'W	68° 01.765'N 106° 32.735'W	68° 01.765'N 106° 32.735'W	
ALS Lab Reference #	L775976-1	L775976-2	L775976-3	L775976-4	L775976-5	L775976-5	
TSS	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	*
pH	7.68	7.56	7.6	7.52	7.57	7.57	-
Electrical Conductivity	513	516	505	414	470	470	-
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-
Iron	0.0396	0.0506	0.0325	0.0330	0.0395	0.0395	-
Manganese	0.0036	0.0062	0.0022	0.0020	0.0035	0.0035	-
Aluminium	0.035	0.035	0.031	0.036	0.048	0.048	-
Arsenic	0.00083	0.00090	0.00087	0.00077	0.00089	0.00089	-
Barium	0.0058	0.0062	0.0057	0.0047	0.0055	0.0055	-
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-
Bismuth	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-
Cadmium	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-
Cobalt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
Copper	0.0017	0.0018	0.0060	0.0015	0.0016	0.0016	-
Lithium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-
Molybdenum	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
Nickel	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Lead	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-
Antimony	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	-
Selenium	0.0020	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Tin	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-
Strontium	0.113	0.118	0.111	0.0911	0.106	0.106	-
Titanium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-
Thallium	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-
Uranium	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-
Vanadium	<0.0010	<0.0010	0.0017	0.0010	0.0011	0.0011	-
Zinc	<0.0040	0.0122	<0.0040	<0.0040	<0.0040	<0.0040	-

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

The following tables summarize monthly (Table 6) and daily (Table 7) water use. Note Windy Camp was closed and no drilling activity occurred during November and December 2009. During 2009, water was extracted from Windy Lake from March to May to support domestic use at Doris Camp due to water quality (blue green algae/microcystin) concerns with Doris Lake.

Table 6 - 2BE-HOP0712 2009 water use in cubic meters (monthly totals).

Month	Volume Domestic Use (m ³) Windy Lake	Volume Drilling (m ³) Lakes Proximal to Drill Targets	Total by month (m ³)
January	Windy Camp Closed	5	5
February	Windy Camp Closed	183	183
March	558*	917	1475
April	620*	782	1402
May	552*	1038	1590
June	Camp Closed	1532	1532
July	Camp Closed	502	502
August	Camp Closed	438	438
September	Camp Closed	357	357
October	Camp Closed	79	79
November	Camp Closed	No Drilling	-
December	Camp Closed	No Drilling	-
Total	1,730	5,833	7,563

**Doris Camp Domestic Use due to Water Quality issue Doris Lake*

Table 7 - 2BE-HOP0712 2009 Domestic and Drilling daily water use in cubic meters.

ND=No Drilling

Numbers in red were averaged due to water meter issues

Date	Domestic Use	RIG GEO 1	RIG GEO 2	RIG GEO 3	RIG Orbit 21	RIG Orbit 22	RIG Orbit 23	RIG Orbit 24
January 1, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 2, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 3, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 4, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 5, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 6, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 7, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 8, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 9, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 10, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 11, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 12, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 13, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 14, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 15, 2009	-	ND	ND	ND	ND	ND	ND	ND

	Domestic Use	RIG GEO 1	RIG GEO 2	RIG GEO 3	RIG Orbit 21	RIG Orbit 22	RIG Orbit 23	RIG Orbit 24
Date								
January 16, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 17, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 18, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 19, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 20, 2009	-	ND	ND	ND	ND	ND	ND	ND
January 21, 2009	-	0.34	ND	ND	ND	ND	ND	ND
January 22, 2009	-	0.18	ND	ND	ND	ND	ND	ND
January 23, 2009	-	0.41	ND	ND	ND	ND	ND	ND
January 24, 2009	-	0.39	ND	ND	ND	ND	ND	ND
January 25, 2009	-	0.38	ND	ND	ND	ND	ND	ND
January 26, 2009	-	0.15	ND	ND	0.50	ND	ND	ND
January 27, 2009	-	0.20	ND	ND	0.50	ND	ND	ND
January 28, 2009	-	0.32	ND	ND	0.84	ND	ND	ND
January 29, 2009	-	0.32	ND	ND	0.20	ND	ND	ND
January 30, 2009	-	ND	ND	ND	0.08	ND	ND	ND
January 31, 2009	-	ND	ND	ND	0.20	ND	ND	ND
February 1, 2009	-	7.3	ND	ND	ND	ND	ND	ND
February 2, 2009	-	3.3	ND	ND	ND	ND	ND	ND
February 3, 2009	-	4.5	ND	ND	2.6	ND	ND	ND
February 4, 2009	-	13.4	ND	ND	3.6	ND	ND	ND
February 5, 2009	-	8.1	0.4	ND	3.4	ND	ND	ND
February 6, 2009	-	6.3	4.4	ND	ND	ND	ND	ND
February 7, 2009	-	7.5	0.6	ND	1	ND	ND	ND
February 8, 2009	-	7.6	ND	ND	1.2	ND	ND	ND
February 9, 2009	-	7.6	ND	ND	1.2	ND	ND	ND
February 10, 2009	-	2.9	ND	ND	ND	ND	ND	ND
February 11, 2009	-	3	0.6	ND	ND	ND	ND	ND
February 12, 2009	-	3	0.8	ND	ND	ND	ND	ND
February 13, 2009	-	10.8	ND	ND	ND	ND	ND	ND
February 14, 2009	-	2.6	0.1	ND	1.5	1.5	ND	ND
February 15, 2009	-	0.7	0.1	ND	2.4	2.6	ND	ND
February 16, 2009	-	1	0.3	ND	1	0.9	ND	ND
February 17, 2009	-	1	0.1	ND	1	2	ND	ND
February 18, 2009	-	1.7	ND	ND	1.9	1.4	ND	ND
February 19, 200	-	1.5	ND	ND	4.6	0.8	ND	ND
February 20, 2009	-	0.4	0.8	ND	0.6	3.1	ND	ND
February 21, 2009	-	0.7	0.7	ND	ND	5.1	ND	ND
February 22, 2009	-	1.8	0.2	ND	1.8	ND	ND	ND
February 23, 2009	-	2.4	2.9	ND	0.9	4.6	ND	ND
February 24, 2009	-	0	1.4	ND	1.7	2.2	ND	ND
February 25, 2009	-	2.5	1.2	ND	1.3	0.9	ND	ND
February 26, 2009	-	0.5	ND	ND	0.6	0.5	ND	ND
February 27, 2009	-	1.3	3.3	ND	ND	0.3	ND	ND
February 28, 2009	-	ND	0.5	ND	3	ND	ND	ND
March 1, 2009	-	25.9	12.5	ND	10.7	6.3	ND	ND
March 2, 2009	-	25.9	14.0	ND	ND	2.3	ND	ND

	Domestic	RIG	RIG	RIG	RIG	RIG	RIG	RIG
Date	Use	GEO 1	GEO 2	GEO 3	Orbit 21	Orbit 22	Orbit 23	Orbit 24
March 3, 2009	-	8.0	3.0	ND	4.39	8.2	3.8	ND
March 4, 2009	-	5.0	32.0	ND	ND	3.6	2.3	ND
March 5, 2009	24	5.0	6.0	ND	ND	7.3	3.7	ND
March 6, 2009	24	5.0	6.6	ND	ND	ND	3.1	ND
March 7, 2009	24	5.0	0.0	ND	ND	7.9	7.3	ND
March 8, 2009	32	9.0	8.8	ND	ND	ND	5.0	ND
March 9, 2009	32	12.0	20.2	ND	ND	0.1	8.6	ND
March 10, 2009	24	7.0	6.4	ND	ND	0.1	15.6	ND
March 11, 2009	24	5.0	4.8	ND	ND	7.1	7.4	ND
March 12, 2009	24	8.0	2.2	ND	ND	5.6	3.6	ND
March 13, 2009	16	8.0	7.0	ND	ND	9.3	6.7	ND
March 14, 2009	16	10.0	1.0	ND	ND	5.7	3.2	ND
March 15, 2009	16	16.0	20.0	ND	ND	10.4	8.6	ND
March 16, 2009	24	7.0	ND	ND	ND	5.0	4.5	ND
March 17, 2009	24	1.0	ND	ND	ND	ND	7.9	ND
March 18, 2009	16	9.0	ND	ND	ND	8.0	12.7	ND
March 19, 2009	16	15.0	1.4	ND	ND	8.9	2.8	ND
March 20, 2009	16	12.6	8.4	ND	ND	11.9	10.0	ND
March 21, 2009	22	11.9	8.0	ND	ND	7.3	8.0	ND
March 22, 2009	16	10.9	10.1	ND	ND	6.9	7.6	ND
March 23, 2009	16	1.8	4.1	ND	ND	4.0	7.3	ND
March 24, 2009	16	4.1	7.3	ND	ND	12.3	8.5	ND
March 25, 2009	24	3.1	7.8	ND	ND	5.9	6.7	ND
March 26, 2009	24	7.9	6.8	ND	ND	6.1	7.3	ND
March 27, 200	16	10.8	5.2	ND	ND	6.2	7.2	ND
March 28, 2009	16	7.6	15.5	ND	ND	5.5	7.0	ND
March 29, 2009	16	3.7	9.6	ND	ND	7.4	7.7	ND
March 30, 2009	16	3.2	10.8	ND	ND	2.3	7.4	ND
March 31, 2009	24	6.8	14.8	ND	ND	6.3	7.3	ND
April 1, 2009	22	1.4	0.2	ND	ND	2.2	8.1	ND
April 2, 2009	24	6.7	0.2	0.6	ND	4.8	9.2	ND
April 3, 2009	16	11.4	0.0	1.6	ND	2.5	11.7	ND
April 4, 2009	24	1.5	0.2	0.7	3.4	0.6	23.1	ND
April 5, 2009	24	3.4	0.2	0.7	5.5	3.5	8.9	ND
April 6, 2009	16	5.6	0.4	1.2	3.1	1.7	5.2	ND
April 7, 2009	24	5.6	0.4	1.2	6.8	4.4	14.5	ND
April 8, 2009	16	5.7	0.1	1.0	5.4	1.6	13.3	ND
April 9, 2009	16	4.7	0.3	0.8	6.4	3.2	6.4	ND
April 10, 2009	16	6.3	0.1	0.8	8.6	2.2	7.5	ND
April 11, 2009	16	6.4	0.1	0.8	10	0	20.9	ND
April 12, 2009	16	1.1	0.3	0.8	3.4	0.6	3.1	ND
April 13, 2009	22	6.3	0.1	1.0	4.6	4.8	7.4	ND
April 14, 2009	16	6.9	0.1	0.8	3	2.9	6	ND
April 15, 2009	16	10	0.2	0.7	2.4	1.7	8.7	ND
April 16, 2009	16	0.6	0.2	2.1	9.5	1.7	8.2	ND
April 17, 2009	32	0.9	0.2	0.3	9.5	1.5	12.3	ND

	Domestic Use	RIG GEO 1	RIG GEO 2	RIG GEO 3	RIG Orbit 21	RIG Orbit 22	RIG Orbit 23	RIG Orbit 24
Date								
April 18, 200	16	0.6	0.3	0.3	5	1.3	7.3	ND
April 19, 2009	16	1.1	0.5	0.5	10	12	13	ND
April 20, 2009	16	0.5	ND	0.6	6	15	13	ND
April 21, 2009	24	0.8	ND	0.6	9.5	3	13	ND
April 22, 2009	16	0.3	ND	0.1	9.5	5	13	ND
April 23, 2009	24	0.3	ND	0.1	11.7	7.4	6.2	ND
April 24, 2009	24	3.0	ND	0.5	7.3	7.4	16.8	ND
April 25, 2009	24	1.8	ND	0.2	8.2	12.9	11.8	ND
April 26, 2009	32	2.7	ND	0.2	4.5	4.4	8.6	ND
April 27, 2009	24	4.1	ND	0.6	7.5	10.4	11.07	ND
April 28, 2009	24	1.2	ND	1.0	7.8	9.4	7.83	ND
April 29, 2009	24	0.2	ND	0.2	5.7	11.1	16.5	6.7
April 30, 2009	24	0.7	ND	0.3	6.7	8.7	ND	7.2
May 1, 2009	24	1.8	ND	0.1	8.4	14.1	2.8	8.4
May 2, 2009	16	0.76	ND	1.7	7.4	7.6	6.9	8.4
May 3, 2009	24	1.24	ND	1.2	9	24	6.7	8.4
May 4, 2009	24	0.3	ND	0.7	18.4	7.4	10.3	9.8
May 5, 2009	24	0.8	ND	1.2	10.3	15.5	3.1	6.5
May 6, 2009	19	0.4	ND	0.3	15.2	10	4.6	5.8
May 7, 2009	16	0.7	ND	0.6	14.7	14	2.6	8
May 8, 2009	16	0.5	ND	0.8	10.4	8.4	10.8	3
May 9, 2009	16	0.5	ND	0.7	19	8.6	9.9	8.4
May 10, 2009	16	0.5	ND	0.9	28.1	13.2	10.1	10.9
May 11, 2009	16	0.4	ND	0.4	16	6.3	13	4.7
May 12, 2009	15	ND	ND	0.4	21.1	13.8	11.9	8.4
May 13, 2009	23	ND	ND	0.2	19.1	6.3	10	8.1
May 14, 2009	16	ND	3.1	0.7	11.1	4.6	13.7	5.9
May 15, 2009	16	ND	3	0.1	8.4	13.4	1.8	8.8
May 16, 2009	16	ND	3.7	0.3	8.4	15	ND	7.1
May 17, 2009	22	ND	3.4	0.7	8.4	12.7	ND	4.8
May 18, 2009	15	ND	5.2	0.7	8.4	11.2	ND	6.2
May 19, 2009	16	ND	4.3	0.7	8.4	4.1	ND	5.4
May 20, 2009	16	ND	1.7	ND	8.4	13.1	ND	6.8
May 21, 2009	16	ND	7.9	ND	8.4	5.1	ND	4.6
May 22, 2009	16	ND	3.6	ND	8.4	ND	ND	8.4
May 23, 2009	16	ND	8.2	ND	10	ND	ND	8.4
May 24, 2009	16	ND	1.7	ND	11	ND	3.4	8.4
May 25, 2009	16	ND	2.1	ND	9	ND	17	8.4
May 26, 2009	16	ND	3.7	0.2	8	ND	4	8.4
May 27, 2009	16	ND	0	1	9	ND	9	8.4
May 28, 2009	16	ND	4.8	0.3	7	ND	10	ND
May 29, 2009	16	ND	3.2	0.5	8	ND	2	ND
May 30, 2009	38	ND	4.3	0.5	ND	ND	9	ND
May 31, 2009	-	ND	3.5	0.4	ND	ND	11	ND
June 1, 2009	-	ND	2.6	7.5	ND	32	32	ND
June 2, 2009	-	ND	2	10.2	ND	16	32	ND

	Domestic Use	RIG GEO 1	RIG GEO 2	RIG GEO 3	RIG Orbit 21	RIG Orbit 22	RIG Orbit 23	RIG Orbit 24
Date								
June 3, 2009	-	ND	6.2	28	ND	32	32	ND
June 4, 2009	-	ND	ND	6.5	ND	16	16	ND
June 5, 2009	-	ND	ND	11.3	ND	32	32	ND
June 6, 2009	-	ND	ND	4.9	ND	32	32	32
June 7, 2009	-	ND	ND	1.1	ND	16	16	32
June 8, 2009	-	ND	ND	14.6	ND	0	16	8
June 9, 2009	-	ND	ND	10.8	ND	32	32	16
June 10, 2009	-	ND	ND	7.7	ND	32	32	32
June 11, 2009	-	ND	ND	ND	ND	32	32	32
June 12, 2009	-	ND	ND	ND	ND	32	32	ND
June 13, 2009	-	ND	ND	ND	ND	32	20	8
June 14, 2009	-	ND	ND	ND	ND	24	ND	21.5
June 15, 2009	-	ND	ND	ND	ND	ND	ND	32
June 16, 2009	-	ND	ND	ND	ND	ND	ND	32
June 17, 2009	-	ND	ND	ND	ND	ND	ND	32
June 18, 2009	-	ND	ND	ND	ND	ND	32	ND
June 19, 2009	-	ND	ND	ND	ND	ND	32	32
June 20, 2009	-	ND	ND	ND	ND	ND	ND	32
June 21, 2009	-	ND	ND	ND	ND	ND	ND	16
June 22, 2009	-	ND	ND	ND	ND	16	ND	32
June 23, 2009	-	ND	ND	ND	ND	32	ND	16
June 24, 2009	-	ND	5.5	ND	ND	0	ND	ND
June 25, 2009	-	ND	3.5	ND	ND	32	32	ND
June 26, 2009	-	ND	2.1	ND	ND	32	2.8	18.85
June 27, 2009	-	ND	2.2	ND	ND	5.72	5.05	5.05
June 28, 2009	-	ND	3.1	ND	ND	2.74	4.15	4.15
June 29, 2009	-	ND	2.4	ND	ND	3.08	2.52	0
June 30, 2009	-	ND	2	ND	ND	ND	5.77	7.3
July 1, 2009	-	ND	6.6	ND	ND	ND	3.25	4.33
July 2, 2009	-	ND	3	ND	ND	9.46	4.66	ND
July 3, 2009	-	ND	4.3	ND	ND	4.9	3.2	ND
July 4, 2009	-	ND	2.8	ND	ND	4.3	6.6	3.0
July 5, 2009	-	ND	8.5	ND	ND	1.5	4	5.4
July 6, 2009	-	ND	2.5	ND	ND	6.4	2.7	7.8
July 7, 2009	-	ND	6.3	ND	ND	2.2	5.4	ND
July 8, 2009	-	ND	2.4	ND	ND	1.6	4.94	ND
July 9, 2009	-	ND	9	ND	ND	4	4.5	5
July 10, 2009	-	ND	11.2	ND	ND	3.5	3.1	4.8
July 11, 2009	-	ND	5.7	ND	ND	ND	5.2	3.9
July 12, 2009	-	ND	3.4	ND	ND	5.2	4.4	0
July 13, 2009	-	ND	1.1	ND	ND	0.45	4.8	7.3
July 14, 2009	-	ND	4.5	ND	ND	3.83	4.05	8.5
July 15, 2009	-	ND	6	ND	ND	1.48	ND	4.2
July 16, 2009	-	ND	3	ND	ND	3.07	16.08	3.96
July 17, 2009	-	ND	5.9	ND	ND	4.18	22.39	4.24
July 18, 2009	-	ND	5.4	ND	ND	4.39	16.98	0

	Domestic	RIG	RIG	RIG	RIG	RIG	RIG	RIG
Date	Use	GEO 1	GEO 2	GEO 3	Orbit 21	Orbit 22	Orbit 23	Orbit 24
July 19, 2009	-	ND	3.5	ND	ND	3.28	13.58	12.6
July 20, 2009	-	ND	2.6	ND	ND	1.47	ND	5.12
July 21, 2009	-	ND	6.3	ND	ND	6.52	ND	4.51
July 22, 2009	-	ND	6	ND	ND	ND	10.04	0.64
July 23, 2009	-	ND	5	ND	ND	ND	4.2	0
July 24, 2009	-	ND	5.1	ND	ND	ND	3.23	7.95
July 25, 2009	-	ND	5.5	ND	ND	ND	0.87	3.91
July 26, 2009	-	ND	1.7	ND	ND	ND	2.2	0
July 27, 2009	-	ND	3.1	ND	ND	ND	1.2	6.73
July 28, 2009	-	ND	7.8	ND	ND	ND	1.7	9.34
July 29, 2009	-	ND	5.6	ND	ND	ND	1.9	7.1
July 30, 2009	-	ND	3.6	ND	ND	ND	1.8	4.86
July 31, 2009	-	ND	1.4	ND	ND	ND	1.1	2.81
August 1, 2009	-	ND	5.9	ND	ND	ND	2.2	ND
August 2, 2009	-	ND	4.6	ND	ND	ND	0.9	6.1
August 3, 2009	-	ND	6.5	ND	ND	ND	3.5	8.4
August 4, 2009	-	ND	7.6	ND	ND	ND	0.2	0.9
August 5, 2009	-	ND	3.5	ND	ND	ND	8.4	0
August 6, 2009	-	ND	4.8	ND	ND	ND	3.4	10.6
August 7, 2009	-	ND	9.1	ND	ND	ND	3.8	2.9
August 8, 2009	-	ND	2	ND	ND	ND	2.2	2.6
August 9, 2009	-	ND	4.8	ND	ND	ND	5.7	0
August 10, 2009	-	ND	8.2	ND	ND	ND	5.3	7.3
August 11, 2009	-	ND	6.7	ND	ND	ND	5.4	4.6
August 12, 2009	-	ND	2	ND	ND	ND	4.6	3.8
August 13, 2009	-	ND	1.6	ND	ND	ND	0.8	1.3
August 14, 2009	-	ND	3.1	ND	ND	ND	8.7	4.3
August 15, 2009	-	ND	2.3	2.6	ND	ND	6.7	6.6
August 16, 2009	-	ND	2.7	5.3	ND	ND	4.8	2
August 17, 2009	-	ND	ND	3.5	ND	ND	5.8	1.8
August 18, 2009	-	ND	ND	5.8	ND	ND	3.1	0.7
August 19, 2009	-	ND	1.9	3	ND	ND	3.6	11.3
August 20, 2009	-	ND	3.1	3.3	ND	ND	3.7	4.1
August 21, 2009	-	ND	2.5	1.7	ND	ND	4.3	4.4
August 22, 2009	-	ND	2.1	13.9	ND	ND	3.1	5.5
August 23, 2009	-	ND	4.9	9.6	ND	ND	7.7	2.5
August 24, 2009	-	ND	2.2	3	ND	ND	8.9	2.8
August 25, 2009	-	ND	2.8	10.3	ND	ND	3.2	2.6
August 26, 2009	-	ND	4.4	2.6	ND	ND	4	1.1
August 27, 2009	-	ND	6.2	8.7	ND	ND	3.8	1.8
August 28, 2009	-	ND	3.3	5.9	ND	ND	0.4	1.6
August 29, 2009	-	ND	4.7	5.5	ND	ND	3.1	4.1
August 30, 2009	-	ND	3.3	1.7	ND	ND	3.2	0.6
August 31, 2009	-	ND	2.2	ND	ND	ND	0.1	2.1
September 1, 2009	-	ND	1.1	ND	ND	ND	1.4	ND
September 2, 2009	-	ND	1.3	ND	ND	ND	ND	1.9

	Domestic Use	RIG GEO 1	RIG GEO 2	RIG GEO 3	RIG Orbit 21	RIG Orbit 22	RIG Orbit 23	RIG Orbit 24
Date								
September 3, 2009	-	ND	2.1	3.9	ND	ND	1.1	0.8
September 4, 2009	-	ND	2.1	7	ND	ND	3.8	3.4
September 5, 2009	-	ND	2.4	9.6	ND	ND	4.1	2.5
September 6, 2009	-	ND	4	1.3	ND	ND	3.7	ND
September 7, 2009	-	ND	4	4.1	ND	ND	5.7	2.3
September 8, 2009	-	ND	3.8	2	ND	ND	5.8	1.5
September 9, 2009	-	ND	3	8.3	ND	ND	3.7	2.6
September 10, 2009	-	ND	3.1	9.7	ND	ND	2.8	1.6
September 11, 2009	-	ND	1.2	0.3	ND	ND	7.2	1.8
September 12, 2009	-	ND	1.3	0	ND	ND	2.3	1.6
September 13, 2009	-	ND	1.4	11.7	ND	ND	6.1	2.4
September 14, 2009	-	ND	2.7	15	ND	ND	8.8	2
September 15, 2009	-	ND	5	3.8	ND	ND	4.58	0.33
September 16, 2009	-	ND	2.5	12.2	ND	ND	4.18	2.41
September 17, 2009	-	ND	2.8	4	ND	ND	8.63	1.84
September 18, 2009	-	ND	3.4	5.3	ND	ND	6.32	3.03
September 19, 2009	-	ND	3.7	0	ND	ND	3.97	1.45
September 20, 2009	-	ND	1.4	0	ND	ND	7.2	2.61
September 21, 2009	-	ND	4.7	3.8	ND	ND	5.01	2.3
September 22, 2009	-	ND	4.2	1.2	ND	ND	4.82	2.73
September 23, 2009	-	ND	2.3	2.1	ND	ND	2.32	2.45
September 24, 2009	-	ND	ND	0	ND	ND	2.96	3.9
September 25, 2009	-	ND	ND	0	ND	ND	1.45	1.77
September 26, 2009	-	ND	ND	0	ND	ND	1.32	3.18
September 27, 2009	-	ND	ND	2.1	ND	ND	1.51	2.55
September 28, 2009	-	ND	ND	4.2	ND	ND	2.04	0.98
September 29, 2009	-	ND	ND	2.4	ND	ND	ND	3.85
September 30, 2009	-	ND	ND	2.7	ND	1.9	ND	2.04
October 1, 2009	-	ND	ND	1.8	ND	18.86	ND	3.18
October 2, 2009	-	ND	ND	ND	ND	15.1	ND	1.76
October 3, 2009	-	ND	ND	ND	ND	ND	3.96	ND
October 4, 2009	-	ND	ND	ND	ND	ND	3.96	ND
October 5, 2009	-	ND	ND	ND	ND	ND	3.96	ND
October 6, 2009	-	ND	ND	ND	ND	ND	3.96	ND
October 7, 2009	-	ND	ND	ND	ND	ND	3.96	ND
October 8, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 9, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 10, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 11, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 12, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 13, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 14, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 15, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 16, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 17, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 18, 2009	-	ND	ND	ND	ND	ND	ND	ND

Date	Domestic Use	RIG GEO 1	RIG GEO 2	RIG GEO 3	RIG Orbit 21	RIG Orbit 22	RIG Orbit 23	RIG Orbit 24
October 19, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 20, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 21, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 22, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 23, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 24, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 25, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 26, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 27, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 28, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 29, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 30, 2009	-	ND	ND	ND	ND	ND	ND	ND
October 31, 2009	-	ND	ND	ND	ND	ND	ND	ND
November 2009	-	No Drilling						
December 2009	-	No Drilling						

c) Quantities of effluent discharged

Windy Camp was closed throughout 2009 therefore no discharges occurred related to the waste water treatment facility at Monitoring Station HOP-2. Effluent was discharged from the HOP-5 Windy Camp Bulk Fuel Storage containment and HOP-6 Patch Lake Fuel Storage Facility in accordance with notifications provided to the inspector. The estimated volume of discharge from HOP-5 in July was 240 m³. The estimated volume of discharge from HOP-6 in June was 190 m³. No further discharges occurred at these facilities in 2009 due to winter freeze-up.

d) Volume of sludge removed from sewage disposal facility

No sludge was removed from the Windy WWTF in 2009 as the camp was closed and this facility was not operational.

e) Results of Toxicity Testing

HBML did not carry out the following toxicity testing to demonstrate Non-Acute Toxicity of the effluent discharged from the WWTF at HOP-3, 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).

No effluent was available for sampling at this location due to camp closure throughout 2009.