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**RE: Water License Inspection - Windy Camp– Hope Bay Joint Venture Project August 15<sup>th</sup>, 2007**

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by Mr. Mathew Kawei, Environmental Coordinator and Mr. Fred Penner, Site Manager, who accompanied the Inspector during the inspection.

The following report is based on observations made at the time of the inspections at Windy Camp (Hope Bay Joint Venture) on August 15<sup>th</sup> 2007. A review of the terms and conditions of the water license was completed with the above after the inspection.

Immediately following the inspection an Industrial Water Use Inspection Report outlining areas of concern was signed off by the parties with the Inspector.

**Part A: Scope and Conditions**

No issues were found with respect to the location of the camp as it relates to the information contained within the current license. The current license is a renewal issued on July 20<sup>th</sup>, 2007 to Miramar Hope Bay Ltd. This is contrary to the date of May 20<sup>th</sup>, 2007 listed on the license.

The license, as issued, remains a Type “B” license classed for Mining and Milling activities at the Windy Camp.

It is noted that the Water License issued to Miramar Hope Bay Ltd, owner and operator of the Hope Bay Regional Exploration Project (Windy Camp) expired on March 10<sup>th</sup> 2007. Records then indicate that the licensee applied for a renewal on March 11<sup>th</sup>, 2007. During the inspection of August 15<sup>th</sup> the Inspector found the camp and exploration program to be operating and confirmed that in fact had been operating during the period not covered by an approved license. The Licensee is reminded that the Nunavut Water Board requires a minimum of 90 days to review and assess all applications for renewal.

The licensee is cautioned that further instances of non-compliance will be viewed as a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.



## **Part B: General Conditions**

The issues of water use fees and security were not included within the context of this inspection.

A review of the Nunavut Water Board FTP – Public Registry was undertaken during the writing of this report. An annual report for the 2006 annum was located and reviewed. This report is a requirement under the terms and conditions of the Water License. The report was found to be complete. However the Inspector is seeking information on the locations and quantities of water used from all sources. The Licensee has suggested in the 2006 annual report that this information is N/A... This is not the case and this information is required to ensure the completeness of the report. This information is to be provided to the Nunavut Water Board and the Inspector within 30 days of receipt of this inspection report.

The proponent is reminded that an annual report is required to be filed by March 31<sup>st</sup> 2008 for the year ending December 31<sup>st</sup> 2007. The annual report must include but should not be limited to those items listed in Section 2 (i through ix) of this part as well as any information required by the Inspector or other sections of license 2BE-HOP0712.

Failure to file a complete report as outlined in the license is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

The Licensee is reminded that proper signage is required at the water supply and waste disposal facilities.

## **Part C: Conditions Applying Water Use**

Under the terms and conditions of the renewal license the allocation for all uses of water is 50 cubic meters per day (CMD). This is allocated as follows; 20 CMD from Windy Lake for Domestic use and 30 CMD from local sources proximal to drilling targets for use in these activities.

During the period of inspection the water in-take and purification system was inspected. All appeared in good order, a meter was noted and the reading was recorded.

During the inspection on August 15<sup>th</sup>, 2007 it was noted that the area around the Float Plane dock and roadway leading down to it produce a heavy silt load that runs into Windy Lake. The Licensee was found to have taken actions such as closing the roadway to all but essential traffic to cut down on the run off into Windy Lake. The Inspector directed the licensee to take further actions to reduce the sedimentation and run off into the Lake. These actions are to be undertaken to ensure compliance with the issued water license and must be completed prior to the date of the next inspection and may include the assistance and input of the Department of Fisheries and Oceans.

## **Part D: Conditions Applying to Waste Disposal**

As per Section 1 of this Part the Licensee shall locate areas designated for waste disposal, a minimum distance of thirty (30) 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.

Given this the Inspector seeks clarification from the Licensee and the Nunavut Water Board on the constructed land farm. The location of which is well within the 30 m set-back from water and in this case the potable water source for the camp. This clearly poses an unacceptable level of risk to Windy Lake. A review and examination of the Nunavut Water Board FTP site could not locate a document providing specific approvals for the location of the constructed land farm and as such it is the opinion of the inspector that the land farm is constructed in a manner contrary to the issued license.



The Inspector requires the Nunavut Water Board provide clarity on this issue and if an approval has been granted to publish it immediately.

Additionally during the period of inspection the location of the WWTF and ROTODISK unit were noted as also being within the 30 meter set back required by the license. In discussion with the licensee the Inspector was provided information that the unit and sludge was scheduled to be moved once the ground was frozen.

The Inspector reviewed the plan with the licensee and a verbal approval was provided on August 15<sup>th</sup> 2007 by the Inspector to the Licensee. The licensee was then directed to provide photographic evidence of the move, once completed, to the Inspector. To-date report has not been submitted to the Inspector. The Licensee is asked to provide clarity on this matter upon receipt of this inspection report.

The Inspector noted the use of Banana Mats along the foreshore and in areas of erosion along the banks of Windy Lake. Mr. Mathew Kawei stated these had been used in other places with great success at providing stabilized soil cover to allow for re-vegetation of natural plant species in areas susceptible to erosion. Evidence of new growth for both grass and sedge species were noted in the mats. The licensee is commended for use of this old but innovative technology and applying it to a specific problem on site. The Inspector hopes this kind of proactive and innovative approach to problem solving on-site issues continues.

During the inspections of the camp the following items were noted and brought to the attention of company representatives accompanying the inspector

- Very little secondary containment for drummed and stored fuel product was found on-site.
- No secondary containment at fuel transfer areas (helicopter and vehicle) was noted
- Plastic bags containing core cuttings was noted in the Land Farm containment area. Removal of these bags and a better system of transfer to the site was recommended by the inspector.
- Unmarked drums containing fuels and unknown liquids were noted within the Land farm.
- Contact water build-up within the land farm should be reduced. The licensee was reminded that any discharge requires sampling prior to discharge and notification to the inspector a minimum of 15 days in advance.
- Erosion and ground water flow issues need to be actively addressed by the licensee. Continued use of vehicles in the area of the camp while the ground is not frozen is causing erosion, rutting and overland flow of sediment into the lake.
- Sewage sludge from the Rotodisk is required to be hauled back to Boston Camp.

The Licensee is reminded to include in the 2007 annual report due on March 31<sup>st</sup> 2008 a list of hazardous materials shipped out of the camp, the treatment received, and the location of the approved treatment facility to which they were sent. All of the foregoing is required information to be included in the annual report. Shipping and receiving invoices are not required so long as the records are available for inspection during the 2008 inspection season.

The Licensee is also required to provide, prior to shipment, an approval from the receiving community authorizing acceptance of any back-hauled hazardous wastes.

The capability of the incinerator found on site to meet the Canada-wide Standards for Dioxins and Furans and the Canada-wide Standard for Mercury Emissions was not reviewed with the proponent. The licensee is reminded that this standard must be met by the date of the next inspection if not already achieved.

The Licensee is reminded that as per Section 16 of this Part that the Licensee is required to provide to the Inspector notification of any discharge to the WWTF Surge tank from the land farm facility or the Bulk fuel storage facility. This notification will be provided 15 days in advance of the discharge and include an estimate of volumes to be discharged as well as the location of the receiving environment. All discharges shall be sampled by the licensee prior to discharge to ensure all discharges meet the criteria set out in sections 17 of the issued water license. These results are to be provided to the Inspector in the notification.



The licensee is reminded that any discharge not meeting the criteria set out in the license will be viewed as a separate violation of the Act for each day the discharge continues and will subject the licensee to the enforcement measures and penalties provided for under the Act.

#### **Part E: Conditions Camps, Access Infrastructures And Operations**

As per section 2 of this part the licensee is required to take action to address the issues of erosion and surface drainage as noted in previous sections. These actions and a plan for their implementation should be included in the annual report and contain specific timelines for implementation prior to freshet as well as a method for assessing the effectiveness of these actions.

A review of the Nunavut Water Board FTP site conducted during the writing of this inspection report failed to locate the following documents;

- Operation and Maintenance Manual for the Waste Water Treatment Facility
- Land farm Operation and Maintenance Plan
- Quality Control and Quality Assurance Plan
- As-built drawings and construction reports for the Bulk Fuel storage facilities and the Land Farm Facility

It should be noted that a document entitled Land Treatment Area Remediation Windy and Boston Camps was located. This document was submitted in May of 2007. It does contain a number of elements outlined in Section 6 of this Part with reference to the Land Farm Operations and Maintenance Manual however it does not address the requirements outlined in the License.

The Licensee is directed to provide the required reports, plans and as-built drawings to the Inspector and the Nunavut Water Board within 30 days of receipt of the inspection report.

The Licensee is reminded that failure to file the required reports or comply with an Inspectors Direction is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

#### **Part F: Conditions Applying To Drilling Operations**

Section 2 of this Part reads as follows;

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 (30) 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.

It should also be noted that, as it relates to Drilling Operations under the authority of the issued license, the Licensee is not allowed to store fuel within 30 meters of water.

The licensee is reminded that all drill holes shall immediately be capped and sealed upon completion of drilling. This will be a point of inspection in subsequent inspections of the site. The Licensee is also reminded that all drill holes are to be marked and the locations of both the water source and drill sump included in the 2007 annual report.

While drilling was on on-going during the period of inspection no samples were collected at that time.



### **Part G: Conditions Applying To Modifications**

During the period of Inspection no mention of modifications was brought to the attention of the Inspector.

It should be noted that the inspector does not consider the transfer of the WWTF and Rotodisk unit to an area removed from the 30 meter set-back from the potable water source as a modification. The units were placed in their current locations because of ground thaw and will be moved to their final locations once the ground is frozen.

### **Part H: Conditions Applying to Spill Contingency Planning**

A review of the Water Board FTP site found a Spill Contingency Plan titled **Environmental Emergency Spill Response Plan** dated September 16<sup>th</sup> 2007.

A specific approval from the Nunavut Water Board was not located during the same review. The Nunavut Water Board is required to either accept or reject the noted plan as per the terms and conditions of the issued license. The Inspector calls upon the Nunavut Water Board to address this issue.

The Licensee is reminded that as per section 5 of this Part, the Licensee is required to ensure that no chemical, petroleum products or wastes enter water and that caches of fuel have secondary containment and that they are not located within 30 meters of the ordinary high water mark of any water body. These requirements must be met by the date of the next inspection.

The Licensee is reminded that as per Section 7 (iii) of this Part the Licensee is required to submit a detailed report to the Inspector on each spill occurrence no later than 30 days following the initial event.

### **Part I: Conditions Applying to Abandonment and Restoration or Temporary Closing**

A review of the Nunavut Water Board FTP site found a document entitled the Closure and Reclamation Plan and dated September 2007.

A specific approval from the Nunavut Water Board was not located during the same review. The Nunavut Water Board is required to either accept or reject the noted plan as per the terms and conditions of the issued license. The Inspector calls upon the Nunavut Water Board to address this issue.

No discussion on the plan was undertaken during the period of inspection and as noted the camp is expected to continue to grow as projects in the Hope Bay belt continue to progress.

To date a notification of seasonal or temporary closure has not been received by the Inspector.

### **Part J: Conditions apply to the Monitoring Program**

The terms and conditions of the monitoring program were not covered during the period of the inspection.

The Licensee is reminded to submit the Quality Control and Quality Assurance Plan for approval by the Board was August 20<sup>th</sup> 2007. This plan is to be submitted within 30 days of receipt of this inspection report. Failure to file the required plan as outlined in the license is a violation of the Act and will subject the licensee to the enforcement measures and penalties provided for under the Act.



**Non-Compliance:**

During the inspection a number of items were noted and discussed with Mr. Penner and subsequently with Mr. Kawei during the inspection of the Windy camp. These issues required corrective action to be undertaken prior to the date of the next inspection. The submission of a record showing these activities had been completed was requested at the time of the inspection.

Specifically the areas of concern the licensee is required to address before the date of the next inspection or within the time line listed in this report are as follows;

- Marshalling of hazardous materials/ shipping off site- record keeping
- Fuel storage (barrels) without secondary containment
- Water levels and plastic bags within the Land Farm
- Location and approvals for the location of the Land Farm
- As built and construction drawings for both the Land Farm and Bulk Fuel Storage area
- Location and approval acknowledgement of the treatment facility where hazardous wastes generated on site are shipped.
- Erosion and ground water control measures – Plan to address and mitigate
- Location of Rotodisk and WWTF – move to final location
- Submission of quality control and quality assurance plan to NWB and Inspector
- Failure to file required plans and documents for review to the Nunavut Water Board
- Required acknowledgements and approvals from the Nunavut Water Board

The Windy camp was found to be a well organized and efficiently run by on-site staff.

**Andrew Keim**  
**Inspector's Name**

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**Inspector's Signature**

Attached under separate cover;  
Photos taken during the Inspection of August 15<sup>th</sup>, 2007

Cc:  
Peter Kusugak – Manager Field Operations Section- Indian and Northern Affairs Canada  
Phyllis Beaulieu – Manager licensing – Nunavut Water Board