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RE: Water License Inspections- Boston Camp – Hope Bay Joint Venture Project July 4th and August 16th, 2007

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by Mathew Kawei, Environmental Coordinator, Mr. Fred Penner, Site Manager and Mr. Larry Connell, General Manager – Environment who accompanied the Inspector during the first inspection. The Inspector was assisted by the site foreman for Boston Camp, Mr. Ed Wheeler on the second inspection of the site.

The following report is based on observations made at the time of the inspections at Boston Camp (Hope Bay Joint Venture) on July 4th 2007 and then again on August 16th in follow up. Items outlined during the first inspection with company representatives were then reviewed on the 16th of August with Mr. Wheeler. A review of the terms and conditions of the water license was completed with the above after each inspection.

Immediately following the first 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 20th, 2007 to Miramar Hope Bay Ltd.

The license, as issued, remains a Type “B” license classed for Mining and Milling activities at the Boston Advanced Exploration Project Site.

It is noted that the Water License issued to Miramar Hope Bay Ltd, owner and operator the Boston Advanced Exploration Project expired on December 31st of 2006. Records then indicate that the Licensee then did not apply for a renewal until April 26th, 2007. During the inspection of July 4th the Inspector found the camp and exploration program to be operating. A Water License for this activity however had not yet been approved by the Nunavut Water Board. A water license for this activity was approved on July 6th 2007 and sent out by the NWB on July 20th 2007.

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 and was found to be incomplete. The Inspector seeks clarification on the amount of fresh water used as listed in the report. The report states that 34.1 cubic meters of water was used. Is that in total or a measurement of consumption per day? Additionally, the quantities of sewage effluent discharged are not recorded.

The proponent is reminded that an annual report is required to be filed by March 31st 2008 for the year ending December 31st 2007. The annual report must include but should not be limited to those items listed in Section 7 (i through xviii) of this Part as well as any information required by the Inspector.

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. This issue is to be addressed by the next inspection.

Part C: Conditions Applying Water Use

Under the terms and conditions of the new license the allocation for all uses of water was reduced from 150 cubic meters per day to 100 cubic meters of water per day. Domestic use is to be drawn from Spider Lake and from sources adjacent to the drilling operations for use in exploration drilling 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.

No sedimentation or erosion issues were noted along the bank of the water source.

Part D: Conditions Applying to Waste Disposal

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

- Evidence of open burning including a very large pile of wood products and other materials was noted on site. Although not in the burn pit, hazardous materials including paint and five gallon pails of gear oil/grease were found in a pile adjacent to the burn area.
- Very little secondary containment for drummed and stored fuel product was found on-site.
- Secondary containment in garage and outbuildings was missing (addressed by second inspection)
- The bermed perimeter containing what was termed the Land farm was not of sufficient height to contain the contaminated soils within.
- No evidence of a lined and bermed area for use as a land fill was found on site.
- A great deal of historic waste including metal, hazardous materials and old drums was found on site. This material was undergoing packaging for shipment out. Consolidation of this material was noted to be a priority and by the period of the second inspection it was clear that efforts had been made to collect and process this material for shipping off site.



The Licensee is reminded to include in the 2007 annual report due on March 31st 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 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 start-up of the Sewage Disposal facility and any subsequent discharge from this facility.

Samples collected during the Inspection period on July 3rd included samples of the Potable water source and samples downstream of the Sewage disposal facility. Sampling results have returned to the Inspector parameters in excess of the NWT Limits for Effluent Parameters for Specific Discharges. Those results in excess of the guideline are as follows;

Parameter	Guideline Limit	Result
Iron	300 µg/L	6650 µg/L
Manganese	50 µg/L	4280 µg/L
Mercury	.6 µg/L	.15 µg/L
Selenium	50 µg/L	124 µg/L

The Licensee is directed to develop a plan to address the high results and implement actions to prevent such discharges. This plan is to be submitted with the 2007 annual report as an addendum. This addendum must have measurable actions and milestones to address the treatment of this discharge and must include a sampling program to monitor the effects of the plan.

During both inspection periods the Inspector did visit the site of the Containment Pond and noted that the just above the water line there were a number of tears and rips visible in the liner used to prevent seepages as per section 10 of this Part. While no samples were collected during the period of either inspection (Lack of a visible flow) the Inspector did request that the liner be repaired as soon as possible. This was not done by the second inspection. The Licensee is reminded that a report on seepages must be included in the 2007 annual report as part of the Geotechnical Engineers report.

Part E: Conditions Camps, Access Infrastructures And Operations

Following the period of Inspection, on September 26th 2007 a letter from Mr. Larry Connell was sent to the Nunavut Water Board concerning the requirement under this Part for the Licensee to, within 90 days of the issuance of the license, develop and submit to the Board a Land Farm Operations and Maintenance plan. The letter outlined the Licensee's plan to forego the construction of a Land Farm on site at this time. There is no indication on the FTP site that this modification has been accepted or approved by the Nunavut Water Board at the time of writing this report. The Licensee is reminded that in the event that the intent to construct a land farm on site is contemplated the Nunavut Water Board requires notification 90 days in advance of any changes or modifications to the current license. Additionally, at that time, an Operations Manual would be required to be submitted with the application for modification to ensure continuity with the current license.

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
- Water and Ore/Waste Rock Management Plan



The Inspector notes that the first two plans listed above were due by October 6th, 2007 and, to date, have not been acknowledged by the Nunavut Water Board as having been submitted. The third report is due on January 8th, 2008 as per section 8 of this Part.

The Licensee is reminded that failure to file the required reports, on time and 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.

During the period of Inspection(s) no information on the removal of the weir at the outfall to Stickleback Lake was made available. The Licensee should outline the plans to address this outstanding requirement as an addendum to the 2007 annual report which is due on March 31st 2008.

The licensee is reminded that the Nunavut water Board requires a minimum of 60 days notice to consider and review all applications for amendment and modifications.

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 (CaCl₂) 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 the first inspection a drill was noted in operation during the second inspection. No samples were collected at this time.

Part G: Conditions Applying To Modifications

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

Subsequently, as noted above, a letter to the Nunavut Water Board requesting an exemption from the requirement to provide an Operations and Maintenance manual for the licensed Land Farm was submitted by the Licensee. This letter was submitted to address a change in operation such that a Land Farm facility will not be built on site at this time. This is a modification to the existing license and requires Board approval via an amendment. The Nunavut Water Board is required thus to acknowledge and either accept or reject this request from the licensee.

Part H: Conditions Applying to Spill Contingency Planning

A review of the Water Board FTP site found a Spill Contingency Plan titled **Emergency Response and Contingency Plans** 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 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 **ALL** 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. This requirement must be met by the date of the next inspection.

The Licensee is reminded that as per Section 8 (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 Abandonment and Restoration 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.

No discussion on the plan was undertaken during the period of inspection and as noted the camp appears to be neither growing nor in any stage of closure. The progressive reclamation work noted on site during the inspections was an exemplary example of effort being put toward the clean up of historic waste build-up on a site that may be developed in future years.

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

Part J: Conditions apply to the Monitoring Program

During the period of the first inspection the licensed monitoring program was not yet in place nor approved by the Nunavut Water Board. During the period of the subsequent inspection no sampling results were available for review.

Subsequently, and during the writing of this report a review of the NWB's FTP site and the Inspector's files indicate that none of the required Monitoring Program Summary reports from the licensee have been filed as required by section 23 of this Part.

The Licensee is required to submit these reports upon receipt of this inspection report. Failure to file the required summaries 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.

Additionally, the Licensee is reminded that the deadline to submit the Quality Control and Quality Assurance Plan for approval by the Board was October 6th 2007. This plan is to be submitted immediately upon 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. Connell and Mr. Penner and subsequently again with Mr. Kawei during the second inspection of the Boston 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.



Specifically the areas of concern the licensee is required to address before the date of the next inspection are as follows;

- Marshalling of hazardous materials/ shipping off site- record keeping
- Fuel storage (barrels) without secondary containment
- Height of berm walls surrounding Land Farm
- Open burning at the camp (addressed by second inspection)
- Location of the treatment facility where hazardous wastes generated on site are shipped.
- Elevated sampling results downstream of the treated sewage discharge – Plan to address
- Rips in Collection Pond liner – To be repaired
- Missing reports including summaries and plans – To be submitted immediately upon receipt of this report
- Lack of acknowledgements on the Nunavut Water Board FTP site.

The Boston camp was found to be a well organized and efficiently run by on-site staff. The licensee made great efforts in addressing the concerns of the first inspection by the date of the second. On-going progressive reclamation work was found to be complete and thorough.

Andrew Keim
Inspector's Name

Inspector's Signature

Attached under separate cover;
Photos taken during Inspection(s) of July 4th and August 16th, 2007

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