



INAC, Nunavut District
P.O. Box 2200
Qimuggjuk Building
Iqaluit, NU, X0A 0H0

Submitted Via E-Mail
Our File: 2BE-FER0507
Your File: _____
CIDM # 175498

October 2, 2007

Andre Douchane
President
Starfield Resources Inc.
420-625 Howe Street
Vancouver, BC V6C 2T6

RE: Water license inspection of Ferguson Lake Camps Starfield Resources Inc. June 26th, 2007

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by Ms. Alison Rippen Armstrong, Environmental and Regulatory Consultant to Starfield Resources Inc, who accompanied the Inspector during the inspection of the camp and drill site.

The following report is based on observations made at the time of the inspection, results of samples collected during the inspection period and items outlined during a review of the terms and conditions of the license with Ms. Armstrong. Immediately following the inspection an Industrial Water Use Inspection Report was signed by both Ms. Armstrong and the Inspector.

It should be noted that at the time of the inspection the operations and day to day activities of the camp were carried out at the new camp location. A visit and tour/inspection was made of the old camp and observations from that inspection including photographs etc are included in this report. To avoid confusion, notes and observations referenced in this report will be sited as old vs. new camp locations.

One amendment to the license was issued April 10th 2006 authorizing Starfield Resources to operate out of the new camp. The amendment contained additional terms and conditions to be met by the licensee.

The license that Starfield was operating under during the period of this inspection expired on July 1st 2007. On October 2nd, the date of this Inspection Report, a new license has just been issued to Starfield Resources for the operation of the new Ferguson Lake camp by the Nunavut Water Board. In conversation with the licensee the Inspector understands that an application was submitted May 24th 2007 to the Nunavut Water Board. A review of the Nunavut water Board FTP site confirms this.

Given the delay in processing of the application the Inspector calls upon the Nunavut Water Board to provide information on the delay and input into the issue of non-compliance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* such that a fair and transparent ruling can be made.

Part A: Scope and Conditions

No issues were found with respect to the location of the camp as they relate to the information contained within the current license and noted amendment.

The license is classed as mining and milling as indicated on the license form.

Part B: General Conditions

The question of water use fees and a determination on if they had been paid was not included within the context of this inspection.



A review of the Nunavut Water Board FTP – Public Registry was conducted during the writing of this report. Included on the FTP site is the application and other associated documents related to the amendment and the new application for the 2007 water license. However the Inspector could not locate the required annual reports from any year.

The Licensee is reminded that Section 2 of this Part requires an annual report to be filed by the licensee by March 31st of every year the Licensee is the holder of a water license. Failure to submit the required reports is a contravention of the terms and conditions of the license and as such the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. To ensure the Licensee maintains compliance with the Act the Licensee is directed to file all required reports with the Nunavut Water Board and the Office of the Inspector within 30 days of receipt of this report.

The licensee is also reminded that applications for renewal are to be submitted a minimum of 90 days prior to the date of expiry of the current license.

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 C: Conditions Applying to Water Use

At the time of the inspection the Licensee was in operation of the new camp facilities and water obtained via hose from Ferguson Lake. Domestic allocations under the amendment were increased to a maximum of 8 cubic meters per day from the original allocation of 5 Cubic meters per day under the original license. During the period of inspection the Inspector did collect samples from the proposed water source lake. Water treatment included both filters and a UV treatment system. The Inspector did not inspect the intake hose to ensure a proper intake screen was installed.

The amendment also included an increase to 90 CMD water to be used for the purposes of drilling activities.

It is highly recommended that flow meters be installed on pump lines so accurate measurements can be recorded. Extrapolation of the quantity of water used based on the run time of a pump or the number of times a tank is filled is not adequate and will not be accepted in future inspections.

Part D: Conditions Applying to Waste Disposal

A walking tour and inspection of the Old Ferguson camp was conducted with Ms. Armstrong.

During the period of inspection one incinerator was noted at the Old Camp however none was noted at the new site. During the period of Inspection this was questioned and the Inspector was told that the incinerator was scheduled to be moved however a larger helicopter was required and that this was to be addressed this summer. Until then the garbage from the new Camp would have to continue to be burned at the Old camp. The licensee is directed to provide follow-up information on the state and location of the incinerator and how garbage is being dealt with at this time.

It is also noted that evidence of open burning was found at the old camp. There appeared to have been cardboard and other items recently burned (were still smoking) at the old camp. These items were transferred from the new camp to the old camp via sling on the helicopter. The licensee was directed to cease this activity (open burning) immediately and to address the issue of incineration at the new camp as soon as possible.

The capability of the incinerator 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.



Further inspection of the Old Ferguson Lake camp was difficult because of snow cover and muddy conditions but an examination of the buildings and surrounding camp yard noted the following concerns for the inspector;

- Poor hydrocarbon containment was evident. Substantial hydrocarbon contamination was obvious throughout the site.
- Insufficient secondary containment of fuel and hydrocarbons throughout the site was noted. Some secondary containment was noted at fuel transfer areas. These were obviously recent additions.
- Batteries and other hazardous materials were evident throughout the site.
- Hydrocarbons, infrastructure and other items were stored too close to water and in one case an old dock has become submerged off shore.
- Fuel storage at the airstrip was not examined however the lack of secondary containment was noted upon arrival.

An Inspection of the New Ferguson Lake camp found the following items to be of concern to the Inspector;

- The location and set up of the grey water sump. The sump is located on ground that will allow over land flow of grey water away from the sump. No Sump pit had been dug at the time of the inspection. The Licensee was still in the process of setting up and was directed to ensure the adequate depth and size of the sump during construction to ensure no additional impacts were created.
- Toilets in camp are Pacto Toilets. Without an incinerator on site how is human waste being dealt with?
- Obvious discrete caches of barrels, propane tanks (without securing or binding chains) etc were scattered around the property. None had secondary containment. When questioned why these items were arranged in such a manner it was stated that the WCB inspector had directed the foreman to reduce the size of any one storage area of hydrocarbons. The inspector requested a copy of the order and contact info for the WCB inspector. The Licensee was directed to ensure secondary containment was installed before the period of the next inspection and to consolidate the fuel storage into one area to reduce the risk of spreading contamination throughout the site in the event of any leakage.

All of the above were discussed with Ms. Armstrong during the inspection period and again while the Industrial inspection report was completed.

The proponent 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.

As per item 6 of the amendment issued by the Nunavut Water Board the issue of sewage disposal and alternatives is to be addressed in the 2007 annual report. This issue is still relevant even in light of the use of Pacto Toilets and not the propane incineration units listed in the license. This change also should be noted and submitted to the board in the annual report under modifications to the operations of the camp.

Part E: Conditions For Camps, Access Infrastructures And Operations

No on-ice work other than hauling of materials to camp was completed this year. It is recommended that the inspector conduct an inspection during the early spring season to monitor compliance with this part if a license to allow continued exploration and use is issued by the Nunavut Water Board. Any on-ice activities should be noted in the application and echoed in the 2007 annual report. An expected start date should also be included for consideration.



Part F: Conditions Applying To Drilling Operations

No drilling activities were on going during the period of this inspection. It was also interesting to note that a falcon had taken up residence in the tower of one of the drilling platforms and the drill was now not serviceable until the chicks had fledged and moved off the tower. This is to be confirmed by the licensee.

The licensee stated that baseline sampling and water quality work was scheduled for this summer. The results of this work should be included in the 2007 annual report.

Part G: Conditions Applying to Modifications

No mention of modifications to the existing license was discussed during the period of inspection. The licensee is reminded that all modifications need to be consistent with the terms and conditions of the existing license and if not then require the Nunavut Water Boards approval.

Such approval is acquired through written notification to the board 60 days in advance of the proposed modification.

Part H: Conditions Applying To Spill Contingency Planning

The licensee is reminded that a report for any spill is required to be filed with the Inspector within 30 days of the incident.

During the period of inspection an assessment of the Old Ferguson Lake camp was scheduled for the summer months. This included a complete assessment of the hydrocarbon contamination and extent of the expected clean up. This report, including the treatment and storage of any contaminated soils has yet to be submitted as it does not yet appear on the Nunavut Water Board FTP site.

The proponent is reminded that secondary containment for fuel storage is required as it prevents uncontrolled and accidental discharges to water and the environment. This includes fuel stored at the new camp and at all other locations including landing strip or any caches.

The licensee is reminded that section 5 of this part requires the licensee to ensure that any equipment maintenance and servicing be conducted only in designated areas and to implement special procedures to prevent spills of these products from entering the environment.

Part I: Conditions Applying To Abandonment And Restoration or Temporary Closing

A review of the Nunavut Water Board FTP site provided the Inspector a copy of the 2007 Abandonment and Restoration Plan submitted in March of 2007 by RESCAN for Starfield Resources Inc.

The scope of the plan noted that the Old camp would be returned to “in –as-close to a pre-Starfield occupancy state as possible”. It is unclear to the inspector what this entails and the licensee is asked to provide further details to the inspector.

Other aspects of the plan are unclear to the inspector. However pending a review of the newly issued license the Inspector will reserve these questions pending a review and acceptance of the plan by the Nunavut Water Board.

The licensee is encouraged to provide information on all on-going progressive reclamation activities conducted on site during the 2007 year. This information should be included in the annual report.



The licensee is reminded that areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector.

The licensee is reminded that all drill holes should be permanently sealed upon completion. The Licensee is invited to submit photographs in the annual report showing the completion of this activity to address this section of the license.

Part J: Conditions Applying To The Monitoring Program

The licensee is reminded to submit in their annual report all items listed in section 1, 2 and 3 of this part.

Records of all hazardous wastes transported off site along with the location and name of the approved disposal site should be included in the annual report and available for inspection during the next inspection season.

The Licensee is reminded that as per Part J item 4 of the amendment the licensee is required to establish baseline water quality conditions prior to drilling through lake ice. The monitoring required shall include but not be limited to;

Total Suspended Solids
pH
Electrical Conductivity, and
Total Trace Metals as determined by a standard ICP Scan (to include at a minimum the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and
Trace Arsenic and Mercury

Non-Compliance:

The licensee, at the time of the inspection, was operating under the terms and conditions of a license scheduled to expire in four days. An application for a new license/ extension had been submitted to the board in May (approximately 60 days) previously. At the time of the writing of this report (90 days after the inspection) a license/ extension has just been issued by the Nunavut Water Board.

This is a matter of grave concern for the inspector as the licensee may have been operating without a license authorizing the activity contrary to the Act. Given the delay in processing this license the inspector is hesitant to undertake a compliance action regarding activity at the site, as this may bring the regulatory and compliance process into disrepute.

During the inspection a number of items were noted and discussed with Ms. Armstrong. These issues required corrective action to be undertaken prior to the date of the next inspection and the submission of a record, or report showing these activities had been completed was to be submitted to the inspector.

The licensee is reminded that subsequent inspections of this site will focus on those issues which were left with the licensee to address.



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

Andrew Keim
Inspector's Name

(Original signed and mailed this date)
Inspector's Signature

Attached under separate cover;
Photos taken during Inspection of June 26th, 2007

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