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## Facsimile Cover Sheet

**To:** MVEIRB **Fax Number:** (867) 766-7074

**Attention:** Vern Christensen, Executive Director

**From:** George Govier

**Number of Pages (incl. cover):** 44 **Date:** June 30, 2007

**Subject:** Land Use Permit Application - S07C- 004  
Mineral Exploration – McTavish Arm, Great Bear Lake  
Deline District, Sahtu Settlement Area

Reference: a) Your fax letter dated June 29, 2007  
b) E-mail from Alan Ehrlich dated June 29, 2007

1. Please find attached **Part 3 of 3** fax transmissions providing information requested at References.
2. Your thoughts and comments always welcome.

*Staff Report*

George Govier  
Executive Director



## Sahtu Land and Water Board

### Staff Report

COPY

<b>Division:</b> Land Program	<b>Report No.</b> 1
<b>Date Prepared:</b> May 24, 2007	<b>File No.</b> S07C-004
<b>Meeting Date:</b> May 23, 2007	
<b>Subject:</b> Application for Type A Land Use Permit by Hunter Bay Resources	

### 1. Purpose/Report Summary

To inform the Board about an Application for Type A Land Use Permit by Hunter Bay Resources for a helicopter supported exploration drill program in the Hunter Bay area of McTavish Arm of Great Bear Lake, all within the Deline District.

### 2. Background

#### 2.1 Project Overview

The company holds several mineral claim blocks centred on Hunter Bay, Doghead Peninsula, Boadway Island, Cornwall Island, Stevens Island, and Vance Peninsula on the east end of Great Bear Lake. These include Mineral Claim blocks F91914, F92300, F98733, F98681, and F98682. This Land Use Permit application is intended to allow the company to do exploration drilling on these claims over a 5 year period. The drill targets named include Sloan, Mariner, Boadway, Sahtu Main, Sahtu East, Mile Lake, and Devious Lake.

The program is scheduled to commence each year after spring break-up; i.e. end of May or beginning of June and end in September-October. The company is proposing to drill an estimated 6,000 metres per year, for a total of 30,000 metres. At the present time there are 7 separate target areas. New targets are likely to be discovered by the ongoing prospecting and sampling. Amendments to the target areas will be submitted as they reach the drill-ready stage.

The drill weighs approximately 4,000 kg. It will be modified to be taken apart in pieces small enough to be moved between sites by helicopter. Drill crews will be transported between the camp and the drill site by helicopter. The drill will operate 24 hours a day, consisting of two 12 hour shifts.

Surface disturbance will be limited to small areas as required to establish drill sites. In these areas vegetation will be laid flat and a small area (approx. 250 m<sup>2</sup>) will be levelled to allow siting of the drill. The drill will be levelled by large timber beams in order to reduce the impact to topsoil. Any clearing of top-soil will be kept to a minimum. Due to the sparse nature of the tree cover in the project area, it is possible that some drilling set-ups will not require clearing. Drill set-up sites will be chosen in advance to make use

of the sparse tree-cover. The helicopter will also make use of natural clearings near the drill site in order to minimize the disturbance of trees.

It is logistically, economically, and environmentally advantageous to drill more than one hole from the same drill set-up. This application proposes approximately 30-40 drill holes per year, and the number of set-ups is proposed to be 20-30. Trees and scrub that were cleared from the drill site will be spread out over the cleared area after the drill leaves. Any disturbed surfaces will be re-contoured to their natural state.

Water for drilling will be drawn from the nearest water-body of sufficient size. The disposal water will consist of drill cuttings produced while drilling, and natural bentonite mud. All drilling fluids will be non-toxic. The return water will be directed towards a natural sump, where the cuttings and mud will settle. This discharge will not be less than 100 m away from the high water mark of any water body.

A large portion of drill water is lost in fractures and pores in the rock down the drill-hole but the majority is returned up the hole to remove the cuttings. Effects of this water input on groundwater and permafrost are generally accepted to be minor and localized.

All garbage will be collected and taken to the camp facilities and burned (where applicable) or backhauled to an approved landfill site in Yellowknife. At the end of the drilling season, the drill, rods, and fluid will be secured and stored for the winter, or demobilized from the project area.

Personnel required include 1 helicopter pilot, 3 drillers, 1 geologist, and 1 Wildlife Monitor. At any given time, the maximum number of people working on the drill program will be 4 to 6. The season will begin with approximately 10 people, with the potential for up to 30 people as the season progresses. The extra people will be needed for geophysics, line cutting, trenching, camp workers, drill helpers, and field assistants.

In a letter dated June 13, 2007 Hunter Bay Resources submitted a single amendment to its application for the sole purpose of altering the location of the proposed camp. The stand-alone camp operated by Matrix Helicopter Solutions would be located on the Vance Peninsula, approximately 13 km southwest of Arctic Circle Lodge. The camp will consist of thirteen - 14x16 canvas wall tents for sleeping, one - 24x36 Weatherhaven tent for kitchen and dining, two - 16x36 Weatherhaven tents for dry-tent and office tent, and one 20x40 core shed. The generator will be housed in a small prefabricated plywood shed. All tents will be set on plywood platforms in order to minimize ground disturbance.

Fuels include:

- diesel 42,025 litres in 205 (205 litre) drums
- aviation 123,000 litres in 600 (205 litre) drums
- gasoline 3,075 litres in 15 (205 litre) drums
- propane 5 (100 lb) bottles

All fuel will be stored in steel drums labeled with the type of fuel and Hunter Bay Resources as owner. Fuels will be stored in a flat, cleared area. Fuel for the 2007 season will be flown from the storage facility in Deline by float-plane or barge as needed. It is estimated that at one time, up to 300 barrels will be stored at the camp fuel storage facility. The camp fuel storage facility will be surrounded by an impermeable berm in order to mitigate potential spills. Fuel transfer methods will involve hand/electric fuel transfer pumps. Drip pans and absorbent materials will be stored at refuelling locations.

Restoration of drill sites will be documented by photographs taken prior to any activity to show the condition of terrain. Throughout the drilling Hunter Bay personnel will inspect the drilling operation. When drilling is complete, the hole is plugged. All reasonable attempts will be made to retrieve the drill casings and rods from the hole. In the event that the casing gets stuck, it will be cut to below the level of ground surface.

After the drill has been dismantled and moved away from the drill site, the area will be inspected by the operating manager from Hunter Bay Resources. The inspector will compile a list of required restorations to the individual site. The drill site will then be immediately restored. Restoration may include levelling of disturbed soil, treatment of hydrocarbon disturbed soils, and removal of all garbage waste.

## 2.2 Process Requirements

**Application Received:** March 27, 2007

**Application Deemed Complete:** April 17, 2007

**Application Forwarded for Referral:** April 17, 2007

**Number of Referral Agencies:** 18

**Referral Period End Date:** May 11, 2007

**Land Use Permit 42-Day Period End Date:** May 29, 2007

**Anticipated Start Date from Applicant:** May, 2007

**Anticipated Completion Date from Applicant:** October, 2011

A Type A Land Use Permit is required for the following activities: use of drilling equipment weighing more than 2.5 tonnes, use of a camp exceeding 400 person days, fuel storage in excess of 80,000 litres, and clearing of a line, trail or right-of-way that exceeds 1.5 metres (4.92 ft) in width. Fees of \$150.00 for the Land Use Permit application and \$87.50 for land use have been received. The land use fee is based on an estimate of 30 drill sites x 250 m<sup>2</sup> per site = 1.75 hectares.

A Type B Water Licence is not required for camps with capacities fewer than 50 persons per day, or serving 50 or fewer people where there is no direct or indirect deposit to surface waters. The camp will be located at Arctic Circle Lodge which is a long-established (1960's) facility; and there will be no more than 30 people on-site at a time.

Water for camp use will be pumped from Great Bear Lake. At the end of a pipe is a cylindrical stainless-steel screen for filtration of solids. The water pump is located at the back of the kitchen. Water use for the camp is estimated to be about 7.5 m<sup>3</sup> per day for 25 occupants.

The drill will use a nominal amount of water for cooling. Water use for drilling is estimated at a maximum of 60 m<sup>3</sup> per 24 hour period. Given 6,000 m of drilling per year, an estimated 7,200 m<sup>3</sup> of water will be used per year. The threshold for requiring a Water Licence is 100 m<sup>3</sup> per day.

Combustible garbage will be incinerated daily in a burn barrel or a forced air, diesel-fired incinerator. Waste oil from the drills as well as any other garbage from the drills will be transported back to camp and incinerated. A hydraulic crusher will be used to compact any tin cans. Residue from the incinerator along with any other non-toxic incombustibles will be disposed of in a landfill site located approximately 325 m west of the main lodge. Bottles and compacted cans will be flown to Yellowknife on backhaul flights.

The lodge has a plumbing system in which sewage and greywater from the kitchen and showers is pumped through sewage lines to a sump located approximately 250 m west of the main lodge. The waste is pumped daily.

*Not every lodge?*

## 2.3 Attachments

Map entitled "Hunter Bay Resources – Land Use Permit S07 C-004"

## **3. Comments**

### 3.1 Permission of Land Owner/Community Consultation/TEK

Most of the drill targets are on Sahtu Settlement land with surface rights, except for the Mariner target, Mile Lake target, and Devious Lake target. All of the drill targets are within Mineral Claims owned by the company. The camp will be operated by Plummers Arctic Lodges to facilitate all of the crew, and fuel storage. Question 4 of the Application refers to eligibility of the applicant to apply for a Land Use Permit. It is indicated that all Mineral Claims are held in the name of Hunter Bay Resources.

An Access Agreement dated January 30, 2007 has been signed between Hunter Bay Resources and the Deline Land Corporation. This is in keeping with the *Sahtu Dene and Metis Comprehensive Land Claim Agreement* Section 21.4.6 which refers to commercial access on Sahtu Settlement Lands surface rights, with the agreement of the designated Sahtu organization. The Agreement is for a term of 5 years.

### 3.2 Community Consultation

The company held a Public Consultation Meeting in Deline on December 6, 2006 and presented its mineral exploration plans for 2007. About 30 people were in attendance. William Kushner of Hunter Bay Resources presented an explanation of what the company has done to-date, a description of the mineral deposits, and how the company operates. Maps of the property and the camp, as well as maps showing the location of the property with respect to Deline were available.

An open discussion was held as part of the meeting and a representative sample of questions included; any corporate relationship with other mineral companies, concern for special lands and animals, how many camps and how many employees there might be, if people would be hired from Deline, if materials would be bought from Deline, the dangers in working with uranium, when will the mining start, how will the exploration be conducted, where would employees stay during the program, what happens during the caribou migration, and would the company be hiring wildlife monitors.

### 3.3 Traditional Environmental Knowledge

The company has completed a Traditional Environmental Knowledge (TEK) Study for the proposed exploration program. The study was managed by the Deline Land Corporation and carried out in January and February. It was completed on February 23, 2007. Individual interviews were carried out between January 10 and 12, 2007. The individuals contacted included Dolphus Baton, Jojo Blondin, Jimmy Dillon, Hughie Ferdinand, Hughie Kenny, Jonas Kenny, Jonas Modeste, Roddy Modest, Lee Tutcho, and Chris Yukon.

A literature review was also part of the TEK study and cites information from the following sources;

- o Sahtu Dene and Metis Comprehensive Land Claim map (1993)
- o Dene Nation Traditional Trails mapping project (c.1984-1987)
- o Sahtu Land Use Planning Board land use mapping projects (1999-2001)
- o Sahtu Renewable Resources Board Harvesting Survey (1999-2003)
- o Sahtu Heritage Places and Sites Joint Working Group report (2000)
- o Great Bear Lake Management Plan (2005)

- Draft Sahtu Land Use Plan map (2006)

A Focus Group Meeting was also held on February 20, 2007. Purpose of the Focus Group was to confirm the general trend observed from individual interviews, identify special sites for inclusion on a map, and obtain feedback on draft recommendations to Hunter Bay Resources.

Results of the study produced site-specific and area-wide information, some of which is summarized as follows:

- Hunter Bay River is the site of 2 abandoned cabins and an old abandoned mine.
- Cameron Bay is a spawning ground for Whitefish. Branson Lodge and the campsite for Alberta Star Development Corp. are located there. Numerous burial sites and cabins are in this area.
- Echo Bay area has numerous cabins and burial sites. It was used in the 1950's and 1960's by the Deline people for living, hunting, trapping, and harvesting timber for the mines.
- Contact Lake has fish. It is the site of the abandoned Contact Lake Mine and federally designated for contaminant assessment and remediation.
- McLeod Lake has fish. It is a portage route from Conjour Bay to Echo Bay.
- No Gweh Ah is a mystical site. Planes have difficulty landing in this area because of the strong whirlpool effect.
- Sahba ?okets'se Du. The name denotes trout. There are 2 cabins in this area.
- Tlue' Mi. The name denotes where Whitefish are netted.
- Workman Island (Beh Kwe Ne Wa). This is a mystical site.
- Superstition Island and MacAlpine Channel are considered mystical areas.
- There are numerous burial sites in the proposed drilling area that are unknown to the people. Due to the terrain and landscape, people could not be buried in a normal six-foot hole. Instead, they were buried at four feet or less, or in the crevasses or cracks between the rocks, and then covered with wood. There were no crosses or markers indicating who was buried at the site.
- The area is part of the caribou migration path.

Significant recommendations about the proposed project include:

- Archaeological, historical, burial, and mystical sites should not be disturbed. If an unknown archaeological or burial site is found, the company should contact the Deline Land Corp. to seek further direction.
- Ensure that noise generated does not impact on wildlife. The company should minimize the use of aircraft and consider the use of alternative mode of transportation, such as hiring local people to transport equipment, materials, and employees by boat.
- No impact to land and water due to wastes, fuel spills or leaks, chemical spills. Sumps with appropriate filtration should be installed.
- Consult with Deline Land Corp. regarding the location of the caribou during the year when developing annual drilling activities.
- Hire qualified environmental and wildlife monitors from Deline.
- Allow the use of the company's helicopter by Deline wildlife monitors to locate caribou and bears for safety to both humans and animals.
- Make sure the waterways are protected in accordance with the Great Bear Lake Watershed Management Plan.
- Make sure the drilling program is mindful of DIAND's work on contaminant assessment and future remediation plans for Silver Bear, Contact Lake, and Echo Bay Mines.

- o Use the study conducted by the Canada-Deline Uranium Table; eg. maps showing locations of waste rock deposits, cabins, mine shafts, and roads.
- o On an annual basis, report to the people of Deline whether and how the issues identified in this study are incorporated in the drilling program.
- o Develop an on-going communication mechanism to consult with the Deline people.

Noteable wildlife in the area include Grizzly-Black-Red Bear, Beaver, Caribou (barren-ground), Ermine, Fox, Lynx, Marmot, Marten, Mink, Moose, Mouse, Muskox, Muskrat, Rabbit, Squirrel, Wolverine and Weasel. Prominent fish species in the area include Blue Mountain Fish, Clam, Conni, Crab, Grayling, Herring, Jackfish, Loche, Oyster, Pickerel, Whitefish, and Trout.

### 3.4 Potential Environmental Impacts and Mitigation Measures

The following sections of the Preliminary Screening Report Form provide specific and important information that may be of interest to the Board:

#### Physical – Chemical Effects

- 1) Ground Water
  - Water Quality Changes
- 2) Surface Water
  - Water Quality Changes
  - Drainage Pattern Changes
- 3) Noise
  - Noise Increase
  - Noise in/near Water
- 4) Land
  - Soil Contamination
  - Soil Compaction & Settling
  - Destabilization / Erosion
- 5) Non-Renewable Natural Resources
  - Resource Depletion
- 6) Air/ Climate/ Atmosphere

#### Biological Environment

- 1) Vegetation
  - Species Composition
- 2) Wildlife & Fish
  - Effects on rare, threatened or endangered species
  - Fish Population Changes
  - Breeding Disturbances
  - Habitat Changes/ Effects
  - Game Species Effects

#### Interacting Environment

- 1) Habitat & Communities
  - Wildlife habitat/ecosystem composition changes
  - Removal of wildlife corridor or buffer zone

- 2) Social & Economic
  - Planning / zoning changes or conflicts
  - Human health hazard
  - Quality of life changes
- 3) Cultural & Heritage
  - Increased economic pressure on historic properties
  - Change to or loss of archaeological resources
  - Increased pressure on archaeological sites
  - Affects to aboriginal lifestyle

All relevant environmental impacts and mitigation measures are addressed in the Preliminary Environmental Screening.

### 3.5 Preliminary Environmental Screening

Section 124(1) of the *Mackenzie Valley Resource Management Act* requires the SAHTU Land & Water Board to undertake a Preliminary Screening of any proposed development prior to the issuance of a Licence, Permit, or Authorization.

Based on the information provided in the application and by referral agencies (see below) a Preliminary Environmental Screening was performed. The report concludes that the environmental impact of the proposed project could have an adverse environmental impact and significant public concerns have been raised. The Preliminary Environmental Screening Report will be forwarded to the MVEIRB once it has received approval from the Board.

### 3.6 Conformity with Land Use Plan

Section 47 of the *Mackenzie Valley Resource Management Act* requires the Sahtu Land Use Planning Board to determine whether an activity is in accordance with a land use plan where the activity is referred to the planning board by the body having authority to issue a Licence, Permit or other authorization in respect of the activity. The referral must be made before the issuance of any Licence, Permit or other authorization. A planning board shall transmit its decision to the agency or body that made a referral. A decision of a planning board about determination of conformity is final and binding.

The Sahtu Land Use Planning Board (SLUPB) replied to our request for comments in a fax letter dated May 18, 2007. A Draft 1- Land Use Plan was published February 16, 2007. Although it is not finalized and approved, the Sahtu Land Use Planning Board encourages that relevant licences and permits be inline with the intent of the Draft Land Use Plan.

Under the Draft 1-Land Use Plan, most of the project area including Hunter Bay, Doghead Peninsula, Boadway Island, Cornwall Island, and Stevens Island, has been identified as potential "Conservation Areas". It is identified as the Caribou Point Conservation Zone. The primary goal of Conservation Areas is to ensure that traditional, cultural, heritage, and bio-physical values are maintained; therefore all surface and sub-surface development activities, except for low impact recreation and tourism are prohibited.

The Mariner target site, Mile Lake target site, and Devious Lake target site are within "Special Management Areas". "Special Management Area includes the shoreline of Great Bear Lake, where mineral exploration and development is not prohibited.

This project would not meet the criteria of an acceptable land use within a "Conservation Area", however no approved Land Use Plan exists at the present time.



This project would meet the criteria of an acceptable land use within a "Special Management Area" while complying with the provisions outlined, including adequate public consultation and mitigative measures to ensure the protection of water, land, wildlife and heritage resources.

### 3.7 Draft Permit

A Draft Permit with Terms and Conditions has been prepared.

### 3.8 Security Deposit

Section 32 of the *Mackenzie Valley Land Use Regulations* and Section 12 of the *NWT Waters Regulations* provides that the Board may require a security deposit in an amount not exceeding the aggregate of;

- a) abandonment of the land use operation,
- b) restoration of the site of the land use operation,
- c) any measures that may be necessary after abandonment of the land use operation.

In setting the amount of security, the Board may consider;

- a) the ability of the applicant or prospective assignee to pay the costs,
- b) the past performance of the applicant or prospective assignee,
- c) the prior posting of security by the applicant pursuant to other federal legislation in relation to the land use operation,
- d) the probability of environmental damage or significance of any environmental damage.

Posted security shall be in the form of;

- a) a promissory note or letter of credit,
- b) a certified cheque,
- c) bearer bonds or performance bond,
- d) cash,
- e) such other form as the Minister may indicate to be satisfactory.

A security deposit evaluation was completed following the model template originally provided by the Mackenzie Valley Land and Water Board. The evaluation is attached for the Board's consideration. Having considered the type of development and any restoration measures, the past performance of the applicant and probability of environmental damage (risk assessment), it is recommended that a security deposit in the amount of \$00.00 is appropriate.

#### 3.8.1 Attachments

Security deposit worksheet.

## **4. Other Agency Comments**

The application was circulated to 18 organizations requesting a reply by May 11, 2007. To date 9 written responses have been received. The following organizations offered comments on the application.

GNWT - Municipal & Community Affairs, Office of the Fire Marshal

A fax dated May 2, 2007 was received from the Office of the Fire Marshal offering comments regarding camps and fuel facilities. The camp is located at Arctic Circle Lodge.

The Fire Marshall commented that this work shall comply with requirements of the 1995 National Building Code (NBC), Part 9 for the construction camps, and the 1995 National Fire Code (NFC) for the fuel facilities and related standards. Comments noted:

- All camps with more than 10 people sleeping in the building require a complete fire alarm system.
- Confirm that all fire safety equipment, fire alarm systems, emergency lighting, fire extinguishers, fire separations, fire rated doors, exiting etc, are code compliant.
- Exit doors shall swing out in the direction of exit travel for the camp buildings.
- Post emergency evacuation plans with the telephone numbers of the RCMP, RWED, the health centre, the local airline and helicopter firms telephone numbers for emergencies.
- All fire rated doors for the bedrooms, service rooms and other areas required by the code shall have door closers installed.

#### Prince of Wales Northern Heritage Centre

The Prince of Wales Northern Heritage Centre in a fax letter dated May 7, 2007 said that;

- they are concerned that the development of up to 150 drill set-ups will place unrecorded archaeological sites at risk of impact.
- they recommend that the proponent conduct a heritage resource impact assessment of their proposed development areas prior to commencing development activities.

#### Deline Renewable Resources Council

In a fax letter dated May 8, 2007 the Deline Renewable Resources Council said that:

- they have not been adequately consulted with regards to the proposed exploration program.
- the areas in which Hunter Bay resources would like to work is a very important caribou migration route and should be researched in better detail than what is supplied in the land use application.
- the lands within this area are identified as selected lands and are under the control of the Deline Land Corporation. There is no letter from the Deline Land Corporation with regards to permission for access into this area.

#### DIAND Land Use Inspector

The DIAND Land Use Inspector submitted comments in a fax letter dated May 9, 2007. They are summarized as follows:

- the lease for the fishing lodge has expired August 31, 2005.
- the purpose of the original lease was for a Fishing Lodge rather than mineral exploration.

- there still exists the issue of inadequate sewage waste treatment and storage facilities at the lodge which is situated in close proximity to the Ordinary High Water Mark.
- identified fuel storage locations are questionable for 3 reasons;
  - why propose 4 different fuel sites in the application when it would be easier to maintain a single site in the event of spills, and why not use natural containment areas to reduce impacts to the land?
  - the topography of the proposed fuel storage sites may result in uncontrollable spills into adjacent waters.
  - there is a documented history of issues associated with fuel storage in the proposed area, most prevalent is the accumulation of fuel drums in locations that pose considerable environmental risk.
- DIAND strongly recommends the Sahtu Land & Water Board exercise Part 22, Sub-part 2(b) of the Mackenzie Valley Land Use Regulations to ensure DIAND sufficient time for further assessment of this project in terms of evaluating the proposed fuel site storage sites, and the new location Hunter Bay Resources will propose to establish their support camp.
- DIAND will not authorize the use of the currently proposed site without the appropriate tenure documents being in effect and current.

#### The Sahtu Renewable Resources Board

In a fax letter dated May 11, 2007 from the SRRB they provided the following comments;

- The Sahtu Renewable Resources Board is not satisfied that all requirements have been met.
- Land use operations will be suspended temporarily if caribou / grizzly bear are spotted within 500 m of any work/camp site.
- SRRB is concerned with the disruption of migrating caribou during the scheduled operations. The Bluenose-East herd migrates to the east arm of Great Bear Lake in the fall for the rutting season. Hunter Bay Resources is proposing to operate in the area from May-October each season, potentially interrupting the caribou's seasonal activity.
- Specific precautions should be incorporated into a wildlife protection plan. Specific mitigation measures include aircraft avoidance of low flying over wildlife and maintenance of a minimum altitude of 650 m (except for landing and take-off), and immediate notification of any wildlife mortalities to SRRB and GNWT/ Wildlife Division.
- Garbage should be removed from drill sites daily and camp garbage should be either stored in proper bear-proof containers or incinerated. Non-combustible garbage and hazardous wastes should be transported to a government approved facility. Hunter Bay Resources are required to follow applicable regulations/guidelines including the registration of waste transportation and incineration (including waste oil/fuel) with the NWT Environmental Protection Service.

- There is no mention of revegetation in areas to be cut.
- Public consultation with the community of Deline should be conducted prior to the end of each season, should the contractor want to store drill equipment on the site over the winter. This will ensure the equipment will not be interfering with trapping activities.
- There is lack of detail in fuel transportation and Spill Contingency Plans. The proponent is proposing to barge fuel to cache locations across Great Bear Lake, however the transportation plan does not contain any specific details of transporting fuel; i.e. type of barge/boat/plane, Transport Canada safety inspections, Transport Canada and Environmental Protection Service registration. The proponent should ensure they follow the *Canada Shipping Act* and regulations, and the *Transportation of Dangerous Goods Act* and regulations. There is no contact information for the Deline Renewable Resources Council and the SRRB in the Spill Contingency Plan.
- There is no correspondence from the Deline Renewable Resources Council to confirm they were adequately consulted on the proposed program.
- DFO approved screens will be placed on all water intake pipes to prevent the uptake of fish. The Board will rely on and support decisions made by the Department of Fisheries and Oceans regarding impacts to fish and fish habitat.
- Trained environmental monitors familiar with the program area will be utilized and hired through the Deline Renewable Resources Council.
- If re-seeding is required, every effort will be made to use a native seed source or, if not possible, to ensure that an uncontaminated seed source is used.
- All equipment will be cleaned prior to initial use to prevent the spread of invasive vegetation species.
- At least one week prior to commencement of the program each season, traditional users, community residents, and organizations in Deline will be notified via posted notices. Annual plain language summaries should be provided to the community of Deline.
- A brief summary will be provided to the Sahtu Renewable Resources Board one month after the end of each operation season. This report should include a map (include GPS points where possible) and outline any wildlife encounters, environmental accidents and access routes created in the previous season.

#### Environment Canada

In a fax letter dated May 11, 2007 Environment Canada said that they have reviewed the application and provide specialist advice primarily on the mandated responsibilities of Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act*, *Species at Risk Act (SARA)*, and the *Migratory Birds Convention Act*. Environment Canada submitted the following comments:

- All sumps and spill basins should be located in such a manner to ensure that their contents do not enter any water body and are to be back-filled and re-contoured to match the surrounding landscape when they are no longer required.
- the proponent shall ensure that any chemicals, fuel or wastes associated with the proposed project do not enter waters frequented by fish. It is a requirement of Section 36(3) of the *Fisheries Act* that all effluent discharged into water frequented by fish, be non-deleterious.
- The proponent should ensure that combustible waste is burned in a device that promotes efficient combustion and reduction of emissions and is capable of meeting the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions.
- Provide a list and the location of equipment, both on and off site to be used in the event of a spill.
- A dedicated area should be used for refuelling equipment with measures taken to ensure capture and containment of drips and spills. Drip pans should be used when refuelling any equipment on site. An appropriate spill kit with absorbent material should be located at all fuel transfer sites and drill sites.
- To ensure compliance with Section 36(3) of the *Fisheries Act* and Section 35 of the *Migratory Bird Regulations* all spills of fuel or hazardous materials, regardless of quantity, shall be reported immediately to the NWT 24-hour Spill Line (867-920-8130).
- Environment Canada contact number under the Spill Response Plan should be changed to the Environment Canada 24 hour pager number: (867) 920-5131.
- All fuel containers must be properly sealed and stacked in an upright position to prevent the possibility of spills and leaks. When storing barrelled fuel at a location, EC encourages the use of self supporting insta-berms, which are available from various suppliers within Canada.
- Drilling wastes from land-based drilling should be disposed of in a sump such that they do not enter any body of water.
- If artesian flow is encountered, drill holes shall be plugged and permanently sealed upon completion.
- The proponent should be aware that the *Canadian Environmental Protection Act* lists CaCl as a toxic substance. If CaCl is used as a drill additive, all sumps containing CaCl should be properly constructed and located in such a manner as to ensure the contents will not enter any water body.
- The Canadian Wildlife Service (CWS) advises that any activities that occur during summer months have the potential to affect breeding migratory birds. Section 6 (a) of the *Migratory Birds Regulations* states that no one shall disturb or destroy the nests or eggs of migratory birds. CWS recommends that the proponent confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity of their operations before activities commence. If active nests (i.e.

nests containing eggs or young) are encountered outside of these dates the proponent should avoid the area until nesting is complete (i.e. the young have left the vicinity of the nest).

- In order to reduce disturbance to nesting birds, CWS recommends that aircraft used in conducting project activities maintain a flight altitude of at least 610 m during horizontal (point to point) flight.
- In order to reduce disturbance to nesting, feeding, or moulting birds, CWS recommends that aircraft used in conducting project activities maintain a vertical distance of 1,000 m and minimum horizontal distance of 1,500 m from any observed concentrations (flocks/groups) of birds.
- Species at Risk that may be encountered within the project area include;
  - Woodland Caribou (Boreal population) – Threatened – Schedule 1 Government Organization with Primary Management Responsibility - GNWT
  - Peregrine Falcon (subspecies anatum) – Threatened – Schedule 1 Government Organization with Primary Management Responsibility - GNWT
  - Eskimo Curlew – Endangered – Schedule 1 Government Organization with Primary Management Responsibility -GNWT
- Species at Risk that could be encountered should be identified.

#### GNWT – Environment & Natural Resources

A fax letter from GNWT – ENR dated May 15, 2007 provides the following comments based on its mandated responsibilities under the *Wildlife Act*, the *Forest Management Act*, and the *Environmental Protection Act* :

- GNWT/ENR staff recommend that 2 Environmental Monitors be hired by Hunter Bay Resources to adequately ensure mitigation measures are adhered to as presented in the project application.
- The federal *Species at Risk Act* (SARA) states that adverse effects on listed species must be identified, and regardless of significance, mitigated and monitored. It is ENR's view that those species listed on Schedule 1, as well as those being considered for status under the Act (i.e. those species listed on Schedule 2 and 3 of the Act) be treated in a similar fashion consistent with the recommendations in "The Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada". The following species are listed on, or pending addition to Schedule 1 of SARA and have the potential to occur in the project area during the timing of operations;
  - Woodland caribou
  - Wolverine
  - Grizzly bear
  - Peregrine falcon
  - Rusty blackbird

- Although the current known distribution of whooping crane does not extend into the project area, it is listed in the Traditional Knowledge Report appended to the application as being present in the project area. ENR staff request that any sightings made by Environmental Monitors be brought forward to Sahtu Cumulative Effects Biologist, Boyan Tracz (867) 587-3521.
- The project occurs within the annual range of the Bluenose-East barrenground caribou herd, and on the extreme eastern edge of Boreal Woodland caribou range. No drilling activity should be conducted within 5 km of a recognized caribou water crossing from May 15<sup>th</sup> until October 15<sup>th</sup>.
- If caribou are encountered within 500m of the program, proponent should shut down operations until such time that the caribou are more distant than 500m.
- If mineral/salt licks are present in the project area, the proponent should maintain a 500 m buffer zone between any development activities and the lick ensuring minimal disturbance to the animals as they access these sites.
- If peregrine falcon or rusty blackbird nest sites are identified in the project area, a buffer of 1.5 km should be maintained between development activities and the nest sites from April 15<sup>th</sup> to September 15<sup>th</sup>.
- In the event that a grizzly bear is disturbed and/or encountered during project operations, information on the sighting should be forwarded to the local Wildlife Officer at the earliest opportunity. This will allow the Department a greater ability to relocate bears that frequent areas of development before they become habituated and must be destroyed as nuisance wildlife.
- GNWT/ENR recommends that all field personnel complete a bear-safety course. This will decrease the cases of bear attacks and the number of bears destroyed as nuisance wildlife.
- Development activities in close proximity to an active carnivore (wolf, grizzly bear, fox, wolverine) den can stress the animals by causing them to increase their monitoring of development activities in lieu of hunting, feeding their young, and resting. If an active den (presence of young) is observed in the project area, the buffers provided below should be maintained between the den and any development activity, between May 1<sup>st</sup> and July 15<sup>th</sup>.
  - wolf 800m buffer distance
  - grizzly bear 300m
  - fox 150m
  - wolverine 2 km
- Harassing wildlife can lead to greater expenditures of energy on the part of the animal and a loss of fitness. This is especially important for mammals in the winter when energy reserves may be low. No wildlife should be disturbed, chased, or harassed by human beings on foot, in a motorized vehicle, or by aircraft.
- Aircraft overflights by helicopter and fixed -wing aircraft can disturb wildlife increasing stress to the animals. Minimum altitudes of no less than 300m should be maintained at all times other than landing or taking off.

- Although the concept of feeding small mammals and birds seems trivial it is in fact a large problem. The increase in local food supply will cause migration into the area of other wildlife and may bring in larger predators and scavengers as well. This may lead to nuisance wildlife that may be destroyed. The grouping together of large concentrations of animals also increases the potential for the spread of diseases. As a result, no wildlife should be purposefully encouraged to habituate to human presence (i.e. wildlife should not be fed).
- Past use of seed mixes for reclamation purposes in the NWT has led to the introduction of non-native plant species, many of which are considered invasive. ENR staffs recommend that seeding be avoided whenever possible and that minimally disturbed ground be replanted with tree seedlings, native plant cuttings or propagules, or left to natural regeneration depending on the site specific objectives. Any seed mix that is used for stabilizing areas of greater disturbance should be free of invasive, alien species, sub-species or varieties and should be approved by regional ENR staff.
- It is vital that the proponent take note of any wildlife observed and the reaction of the wildlife to development activity. ENR requests that Hunter Bay Resources provide a record of all wildlife sightings made during the program (including, if possible, GPS locations). These data should be provided to ENR's Sahtu Cumulative Effects Biologist, Boyan Tracz.
- GNWT/ENR recognizes that timely disposal of camp waste, specifically food waste, is of critical importance to minimize safety risks associated with wildlife attraction. Burning should only be considered after all other alternatives for waste disposal have been explored. For small camps the use of a modified burn barrel may be acceptable.
- If incineration of used oil and waste fuel is required, the proponent should comply with the *NWT Used Oil and Waste Fuel Management Regulations*.
- GNWT/ENR does not endorse the "burning" or incineration of industrial Hazardous Waste that result from operations or the clean up of spills of refined petroleum products, unless authorized in the case of an emergency.
- Appropriate incineration technology must be used. It should be capable of meeting the emission limits established by the Canadian Council of Ministers of the Environment (CCME) under the Canada-wide Standards (CWS) for Dioxins and Furans, and CWS for Mercury Emissions. This will likely require the use of a controlled air dual chamber incinerator device with sufficient air mix, residence time and temperature to maximize combustion of waste gases.

#### Mackenzie Valley Land and Water Board

In a fax letter dated May 11, 2007 the staff of the Mackenzie Valley Land and Water Board has reviewed the application with regards to transboundary implications. It was decided that this operation is not "likely to have an impact in more than one (1) settlement area, or in a settlement area and an area outside any settlement area", as per Part 4, Section 103(1)(a) of the Mackenzie Valley Resource Management Act.



#### **4.1 Attachments**

1. Fax from GNWT/MACA Office of the Fire Marshal dated May 2, 2007
2. Fax letter from Prince of Wales Northern Heritage Centre dated May 7, 2007
3. Fax letter from Deline Renewable Resources Council dated May 8, 2007
4. Fax letter from DIAND Land Use Inspector dated May 9, 2007
5. Fax letter from Sahtu Renewable Resources Board dated May 11, 2007
6. Fax letter from Environment Canada dated May 11, 2007
7. Fax letter from GNWT/ENR dated May 15, 2007
8. Fax letter from Sahtu Land Use Planning Board dated May 18, 2007
9. Fax letter from Mackenzie Valley Land & Water Board dated May 11, 2007

#### **5. Conclusion**

The Preliminary Environmental Screening Report has identified Significant Adverse Environmental Impacts and Public Concerns.

The Preliminary Environmental Screening Report, has been submitted to the Board for approval. The Board should exercise Part 22, Sub-part 2(b) of the Mackenzie Valley Land Use Regulations to ensure DIAND sufficient time for further assessment of this project in terms of evaluating the proposed fuel site storage sites, and the new location Hunter Bay Resources will propose to establish their support camp.

#### **6. Recommendation**

The Preliminary Screening Report determined that the development has identified Significant Adverse Environmental Impact, and Public Concern. It is recommended that the SLWB exercise Part 22, Sub-part 2(b) of the Mackenzie Valley Land Use Regulations calling for further studies and investigations to be made respecting the lands proposed to be used in the land use operation.

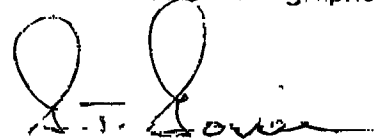
#### **7. Reference Material Attached**

- 7.1 Map of Permit Area.
- 7.2 Security deposit worksheet.
- 7.3 Fax from GNWT/MACA Office of the Fire Marshal dated May 2, 2007
- 7.4 Fax letter from Prince of Wales Northern Heritage Centre dated May 7, 2007
- 7.5 Fax letter from Deline Renewable Resources Council dated May 8, 2007
- 7.6 Fax letter from DIAND Land Use Inspector dated May 9, 2007
- 7.7 Fax letter from Sahtu Renewable Resources Board dated May 11, 2007
- 7.8 Fax letter from Environment Canada dated May 11, 2007

- 7.9 Fax letter from GNWT/ENR dated May 15, 2007
- 7.10 Fax letter from Sahtu Land Use Planning Board dated May 18, 2007
- 7.11 Fax letter from Mackenzie Valley Land & Water Board dated May 11, 2007

Respectfully submitted,

Land/Resource Geographer



G.T. Govier  
Executive Director

Executive Director Comments:

*Agree with Conclusion & Recommendation*



# Sahtu Land and Water Board

## Staff Report

COPY

<b>Division:</b> Land Program	<b>Report No.</b> 2
<b>Date Prepared:</b> June 27, 2007	<b>File No.</b> S07C-004
<b>Meeting Date:</b> June 29, 2007	
<b>Subject:</b> Application for Type A Land Use Permit by Hunter Bay Resources	

### 1. Purpose/Report Summary

To inform the Board about an Application for Type A Land Use Permit by Hunter Bay Resources for a helicopter supported exploration drill program in the Hunter Bay area of McTavish Arm of Great Bear Lake, all within the Deline District.

### 2. Background

#### 2.1 Project Overview

The company holds several mineral claim blocks centred on Hunter Bay, Doghead Peninsula, Boadway Island, Cornwall Island, Stevens Island, and Vance Peninsula on the east end of Great Bear Lake. These include Mineral Claim blocks F91914, F92300, F98733, F98681, and F98682. This Land Use Permit application is intended to allow the company to do exploration drilling on these claims over a 5 year period. The drill targets named include Sloan, Mariner, Boadway, Sahtu Main, Sahtu East, Mile Lake, and Devious Lake.

The program is scheduled to commence each year after spring break-up; i.e. end of May or beginning of June and end in September-October. The company is proposing to drill an estimated 6,000 metres per year, for a total of 30,000 metres. At the present time there are 7 separate target areas. New targets are likely to be discovered by the on-going prospecting and sampling. Amendments to the target areas will be submitted as they reach the drill-ready stage.

The drill weighs approximately 4,000 kg. It will be modified to be taken apart in pieces small enough to be moved between sites by helicopter. Drill crews will be transported between the camp and the drill site by helicopter. The drill will operated 24 hours a day, consisting of two 12 hour shifts.

Surface disturbance will be limited to small areas as required to establish drill sites. In these areas vegetation will be laid flat and a small area (approx. 250 m<sup>2</sup>) will be levelled to allow siting of the drill. The drill will be levelled by large timber beams in order to reduce the impact to topsoil. Any clearing of top-soil will be kept to a minimum. Due to the sparse nature of the tree cover in the project area, it is possible that some drilling set-ups will not require clearing. Drill set-up sites will be chosen in advance to make use

of the sparse tree-cover. The helicopter will also make use of natural clearings near the drill site in order to minimize the disturbance of trees.

It is logistically, economically, and environmentally advantageous to drill more than one hole from the same drill set-up. This application proposes approximately 30-40 drill holes per year, and the number of set-ups is proposed to be 20-30. Trees and scrub that were cleared from the drill site will be spread out over the cleared area after the drill leaves. Any disturbed surfaces will be re-contoured to their natural state.

Water for drilling will be drawn from the nearest water-body of sufficient size. The disposal water will consist of drill cuttings produced while drilling, and natural bentonite mud. All drilling fluids will be non-toxic. The return water will be directed towards a natural sump, where the cuttings and mud will settle. This discharge will not be less than 100 m away from the high water mark of any water body.

A large portion of drill water is lost in fractures and pores in the rock down the drill-hole but the majority is returned up the hole to remove the cuttings. Effects of this water input on groundwater and permafrost are generally accepted to be minor and localized.

All garbage will be collected and taken to the camp facilities and burned (where applicable) or backhauled to an approved landfill site in Yellowknife. At the end of the drilling season, the drill, rods, and fluid will be secured and stored for the winter, or demobilized from the project area.

Personnel required include 1 helicopter pilot, 3 drillers, 1 geologist, and 1 Wildlife Monitor. At any given time, the maximum number of people working on the drill program will be 4 to 6. There will be one camp at Arctic Circle Lodge. The season will begin with approximately 10 people, with the potential for up to 30 people as the season progresses. The extra people will be needed for geophysics, line cutting, trenching, camp workers, drill helpers, and field assistants.

Fuels include;

- diesel 42,025 litres in 205 (205 litre) drums
- aviation 123,000 litres in 600 (205 litre) drums
- gasoline 3,075 litres in 15 (205 litre) drums

All fuel will be stored in steel drums labeled with the type of fuel and Hunter Bay Resources as owner. Fuels will be stored in four separate areas on the Arctic Circle Lodge property. At any time there will not be more than 4,000 litres at any one location. The fuel will be transported and staged at each location during the field season. Fuel transfer methods will involve hand/electric fuel transfer pumps. Drip pans and absorbent materials will be stored at refuelling locations. Spill kits will be available in camp and at drill sites. Fuel will be stored in bermed and lined areas at least 100 m from the ordinary high water mark of any watercourse or water body.

Drill sites will not have fuel caches. They will have fuel as required only. All empty containers will be removed from the project area and returned to the fuel contractor.

Equipment list includes;

- Diamond Drill, Longyear 38 or equivalent (1)
- Honda utility ATV or equivalent (1) for moving core near core facility
- Helicopter, Hughes 500 (1)
- Water Pump (1) 50 hp to supply drill with water

Spill kits will be available in camp and at drill sites. Fuel will be stored in bermed and lined areas at least 100 m from the ordinary high water mark of any watercourse or water body.

Drill sites will not have fuel caches. They will have fuel as required only. All empty containers will be removed from the project area and returned to the fuel contractor.

Equipment list includes:

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- Helicopter, Hughes 500 (1)
- Water Pump (1) 50 hp to supply drill with water

Restoration of drill sites will be documented by photographs taken prior to any activity to show the condition of terrain. Throughout the drilling Hunter Bay personnel will inspect the drilling operation. When drilling is complete, the hole is plugged. All reasonable attempts will be made to retrieve the drill casings and rods from the hole. In the event that the casing gets stuck, it will be cut to below the level of ground surface.

After the drill has been dismantled and moved away from the drill site, the area will be inspected by the operating manager from Hunter Bay Resources. The inspector will compile a list of required restorations to the individual site. The drill site will then be immediately restored. Restoration may include levelling of disturbed soil, treatment of hydrocarbon disturbed soils, and removal of all garbage waste.

## 2.2 Process Requirements:

**Application Received:** March 27, 2007

**Application Deemed Complete:** April 17, 2007

**Application Forwarded for Referral:** April 17, 2007

**Application Amendment (Camp re-location) Forwarded for Referral:** June 15, 2007

**Number of Referral Agencies:** 18

**Referral Period End Date:** May 11, 2007

**Application Amendment Referral Period End Date:** June 26, 2007

**Land Use Permit 42-Day Period End Date:** May 29, 2007

**Anticipated Start Date from Applicant:** May, 2007

**Anticipated Completion Date from Applicant:** October, 2011

A Type A Land Use Permit is required for the following activities: use of drilling equipment weighing more than 2.5 tonnes, use of a camp exceeding 400 person days, fuel storage in excess of 80,000 litres, and clearing of a line, trail or right-of-way that exceeds 1.5 metres (4.92 ft) in width. Fees of \$150.00 for the Land Use Permit application and \$87.50 for land use have been received. The land use fee is based on an estimate of 30 drill sites x 250 m<sup>2</sup> per site = 1.75 hectares.

A Type B Water Licence is not required for camps with capacities fewer than 50 persons per day, or serving 50 or fewer people where there is no direct or indirect deposit to surface waters. The camp will be located on the Vance Peninsula and there will be no more than 30 people on-site at a time.

Water for camp use will be pumped from Great Bear Lake. At the end of a pipe is a cylindrical stainless-steel screen for filtration of solids. Water use for the camp is

estimated to be about 10 m<sup>3</sup> per day for 25 occupants. This leads to a yearly consumption of 1,200 m<sup>3</sup>.

The drill will use a nominal amount of water for cooling. Water use for drilling is estimated at a maximum of 60 m<sup>3</sup> per 24 hour period. Given 6,000 m of drilling per year, an estimated 7,200 m<sup>3</sup> of water will be used per year. The threshold for requiring a Water Licence is 100 m<sup>3</sup> per day.

Combustible garbage will be incinerated daily in a burn barrel or a forced air, diesel-fired incinerator. Waste oil from the drills as well as any other garbage from the drills will be transported back to camp and incinerated. A hydraulic crusher will be used to compact any tin cans. Bottles and compacted cans will be flown to Yellowknife on backhaul flights.

Out-house latrines will be constructed, and lime will be used daily.

### 2.3 Attachments

Map entitled "Hunter Bay Resources – Land Use Permit S07 C-004"

(Note: Campsite re-located)

## **3. Comments**

### 3.1 Permission of Land Owner/Community Consultation/TEK

Most of the drill targets are on Sahtu Settlement Land with surface rights, except for the Mariner target, Mile Lake target, and Dévious Lake target. All of the drill targets are within Mineral Claims owned by the company. The camp will be operated by Hunter Bay Resources to facilitate all of the crew, and fuel storage. Question 4 of the Application refers to eligibility of the applicant to apply for a Land Use Permit. It is indicated that all Mineral Claims are held in the name of Hunter Bay Resources.

An Access Agreement dated January 30, 2007 has been signed between Hunter Bay Resources and the Deline Land Corporation. This is in keeping with the *Sahtu Dene and Metis Comprehensive Land Claim Agreement* Section 21.4.6 which refers to commercial access on Sahtu Settlement Lands surface rights, with the agreement of the designated Sahtu organization. The Agreement is for a term of 5 years.

### 3.2 Community Consultation

The company held a Public Consultation Meeting in Deline on December 6, 2006 and presented its mineral exploration plans for 2007. About 30 people were in attendance. William Kushner of Hunter Bay Resources presented an explanation of what the company has done to-date, a description of the mineral deposits, and how the company operates. Maps of the property and the camp, as well as maps showing the location of the property with respect to Deline were available.

An open discussion was held as part of the meeting and a representative sample of questions included: any corporate relationship with other mineral companies, concern for special lands and animals, how many camps and how many employees there might be, if people would be hired from Deline, if materials would be bought from Deline, the dangers in working with uranium, when will the mining start, how will the exploration be conducted, where would employees stay during the program, what happens during the caribou migration, and would the company be hiring wildlife monitors.

### 3.3 Traditional Environmental Knowledge

The company has completed a Traditional Environmental Knowledge (TEK) Study for the proposed exploration program. The study was managed by the Deline Land Corporation and carried out in January and February. It was completed on February 23, 2007. Individual interviews were carried out between January 10 and 12, 2007. The individuals contacted included Dolphus Baton, Jojo Blondin, Jimmy Dillon, Hughie Ferdinand, Hughie Kenny, Jonas Kenny, Jonas Modeste, Roddy Modest, Lee Tutcho, and Chris Yukon.

A literature review was also part of the TEK study and cites information from the following sources:

- o Sahtu Dene and Metis Comprehensive Land Claim map (1993)
- o Dene Nation Traditional Trails mapping project (c.1984-1987)
- o Sahtu Land Use Planning Board land use mapping projects (1999-2001)
- o Sahtu Renewable Resources Board Harvesting Survey (1999-2003)
- o Sahtu Heritage Places and Sites Joint Working Group report (2000)
- o Great Bear Lake Management Plan (2005)
- o Draft Sahtu Land Use Plan map (2006)

A Focus Group Meeting was also held on February 20, 2007. Purpose of the Focus Group was to confirm the general trend observed from individual interviews, identify special sites for inclusion on a map, and obtain feedback on draft recommendations to Hunter Bay Resources.

Results of the study produced site-specific and area-wide information, some of which is summarized as follows:

- o Hunter Bay River is the site of 2 abandoned cabins and an old abandoned mine.
- o Cameron Bay is a spawning ground for Whitefish. Branson Lodge and the campsite for Alberta Star Development Corp. are located there. Numerous burial sites and cabins are in this area.
- o Echo Bay area has numerous cabins and burial sites. It was used in the 1950's and 1960's by the Deline people for living, hunting, trapping, and harvesting timber for the mines.
- o Contact Lake has fish. It is the site of the abandoned Contact Lake Mine and federally designated for contaminant assessment and remediation.
- o McLeod Lake has fish. It is a portage route from Conjour Bay to Echo Bay.
- o No Gweh Ah is a mystical site. Planes have difficulty landing in this area because of the strong whirlpool effect.
- o Sahba ?okets'se Du. The name denotes trout. There are 2 cabins in this area.
- o Tlue' Mi. The name denotes where Whitefish are netted.
- o Workman Island (Beh Kwe Ne Wa). This is a mystical site.
- o Superstition Island and MacAlpine Channel are considered mystical areas.
- o There are numerous burial sites in the proposed drilling area that are unknown to the people. Due to the terrain and landscape, people could not be buried in a normal six-foot hole. Instead, they were buried at four feet or less, or in the crevasses or cracks between the rocks, and then covered with wood. There were no crosses or markers indicating who was buried at the site.
- o The area is part of the caribou migration path.

Significant recommendations about the proposed project include:

- Archaeological, historical, burial, and mystical sites should not be disturbed. If an unknown archaeological or burial site is found, the company should contact the Deline Land Corp. to seek further direction.
- Ensure that noise generated does not impact on wildlife. The company should minimize the use of aircraft and consider the use of alternative mode of transportation, such as hiring local people to transport equipment, materials, and employees by boat.
- No impact to land and water due to wastes, fuel spills or leaks, chemical spills. Sumps with appropriate filtration should be installed.
- Consult with Deline Land Corp. regarding the location of the caribou during the year when developing annual drilling activities.
- Hire qualified environmental and wildlife monitors from Deline.
- Allow the use of the company's helicopter by Deline wildlife monitors to locate caribou and bears for safety to both humans and animals.
- Make sure the waterways are protected in accordance with the Great Bear Lake Watershed Management Plan.
- Make sure the drilling program is mindful of DIAND's work on contaminant assessment and future remediation plans for Silver Bear, Contact Lake, and Echo Bay Mines.
- Use the study conducted by the Canada-Deline Uranium Table; eg. maps showing locations of waste rock deposits, cabins, mine shafts, and roads.
- On an annual basis, report to the people of Deline whether and how the issues identified in this study are incorporated in the drilling program.
- Develop an on-going communication mechanism to consult with the Deline people.

Noteable wildlife in the area include Grizzly-Black-Red Bear, Beaver, Caribou (barren-ground), Ermine, Fox, Lynx, Marmot, Marten, Mink, Moose, Mouse, MuskoX, Muskrat, Rabbit, Squirrel, Wolverine and Weasel. Prominent fish species in the area include Blue Mountain Fish, Clam, Conni, Crab, Grayling, Herring, Jackfish, Loche, Oyster, Pickerel, Whitefish, and Trout.

### 3.4 Potential Environmental Impacts and Mitigation Measures

The following sections of the Preliminary Screening Report Form provide specific and important information that may be of interest to the Board:

#### Physical – Chemical Effects

- 1) Ground Water
  - Water Quality Changes
- 2) Surface Water
  - Water Quality Changes
  - Drainage Pattern Changes
- 3) Noise
  - Noise Increase
  - Noise in/near Water
- 4) Land
  - Soil Contamination
  - Soil Compaction & Settling
  - Destabilization / Erosion
- 5) Non-Renewable Natural Resources
  - Resource Depletion



## 6) Air/ Climate/ Atmosphere

### Biological Environment

- 1) Vegetation
  - Species Composition
- 2) Wildlife & Fish
  - Effects on rare, threatened or endangered species
  - Fish Population Changes
  - Breeding Disturbances
  - Habitat Changes/ Effects
  - Game Species Effects

### Interacting Environment

- 1) Habitat & Communities
  - Wildlife habitat/ecosystem composition changes
  - Removal of wildlife corridor or buffer zone
- 2) Social & Economic
  - Planning / zoning changes or conflicts
  - Human health hazard
  - Quality of life changes
- 3) Cultural & Heritage
  - Increased economic pressure on historic properties
  - Change to or loss of archaeological resources
  - Increased pressure on archaeological sites
  - Affects to aboriginal lifestyle

All relevant environmental impacts and mitigation measures are addressed in the Preliminary Environmental Screening.

### 3.5 Preliminary Environmental Screening

Section 124(1) of the *Mackenzie Valley Resource Management Act* requires the SAHTU Land & Water Board to undertake a Preliminary Screening of any proposed development prior to the issuance of a Licence, Permit, or Authorization.

Based on the information provided in the application and by referral agencies (see below) a Preliminary Environmental Screening was performed. The report concludes that the environmental impact of the proposed project can be mitigated with known technologies and that no public concerns have been raised. The Preliminary Environmental Screening Report will be forwarded to the MVEIRB once it has received approval from the Board.

### 3.6 Conformity with Land Use Plan

Section 47 of the *Mackenzie Valley Resource Management Act* requires the Sahtu Land Use Planning Board to determine whether an activity is in accordance with a land use plan where the activity is referred to the planning board by the body having authority to issue a Licence, Permit or other authorization in respect of the activity. The referral must be made before the issuance of any Licence, Permit or other authorization. A planning board shall transmit its decision to the agency or body that made a referral. A decision of a planning board about determination of conformity is final and binding.

The Sahtu Land Use Planning Board (SLUPB) replied to our request for comments in a fax letter dated May 18, 2007. In a second fax letter dated June 20, 2007 the SLUPB provided the same comment about the proposed camp re-location. A Draft 1- Land Use Plan was published February 16, 2007. Although it is not finalized and approved, the Sahtu Land Use Planning Board encourages that relevant licences and permits be inline with the intent of the Draft Land Use Plan.

Under the Draft 1-Land Use Plan, most of the project area including Hunter Bay, Doghead Peninsula, Boadway Island, Cornwall Island, and Stevens Island, has been identified as potential "Conservation Areas". It is identified as the Caribou Point Conservation Zone. The primary goal of Conservation Areas is to ensure that traditional, cultural, heritage, and bio-physical values are maintained; therefore all surface and sub-surface development activities, except for low impact recreation and tourism are prohibited.

The Mariner target site, Mile Lake target site, and Devious Lake target site are within "Special Management Areas". "Special Management Area includes the shoreline of Great Bear Lake, where mineral exploration and development is not prohibited.

This project would not meet the criteria of an acceptable land use within a "Conservation Area", however no approved Land Use Plan exists at the present time.

This project would meet the criteria of an acceptable land use within a "Special Management Area" while complying with the provisions outlined, including adequate public consultation and mitigative measures to ensure the protection of water, land, wildlife and heritage resources.

### 3.7 Draft Permit

A Draft Permit with Terms and Conditions has been prepared.

### 3.8 Security Deposit

Section 32 of the *Mackenzie Valley Land Use Regulations* and Section 12 of the *NWT Waters Regulations* provides that the Board may require a security deposit in an amount not exceeding the aggregate of;

- a) abandonment of the land use operation,
- b) restoration of the site of the land use operation,
- c) any measures that may be necessary after abandonment of the land use operation.

In setting the amount of security, the Board may consider;

- a) the ability of the applicant or prospective assignee to pay the costs,
- b) the past performance of the applicant or prospective assignee,
- c) the prior posting of security by the applicant pursuant to other federal legislation in relation to the land use operation,
- d) the probability of environmental damage or significance of any environmental damage.

Posted security shall be in the form of;

- a) a promissory note or letter of credit,
- b) a certified cheque,
- c) bearer bonds or performance bond,
- d) cash,
- e) such other form as the Minister may indicate to be satisfactory.

A security deposit evaluation was completed following the model template originally provided by the Mackenzie Valley Land and Water Board. The evaluation is attached for the Board's consideration. Having considered the type of development and any restoration measures, the past performance of the applicant and probability of environmental damage (risk assessment), it is recommended that a security deposit in the amount of \$00.00 is appropriate.

### 3.8.1 Attachments

Security deposit worksheet.

## **4. Other Agency Comments**

The application was circulated to 18 organizations requesting a reply by May 11, 2007. To date 12 written responses have been received. The application amendment for camp re-location was sent to the same 18 organizations requesting a reply by June 26, 2007. The following organizations offered comments on the original application, and where applicable, the amendment for camp re-location.

### **Environmental Health Services, Stanton Territorial Health Authority**

In an e-mail dated May 11, 2007 the Stanton Territorial Health Authority noted that all camps and their operations must comply with the NWT Public Health Act, and specifically comply with the following acts:

- Consolidation of Camp Sanitation Regulations
- Consolidation of Eating or Drinking Places Regulations
- Consolidation of General Sanitation Regulations
- Consolidation of Public Water Supply Regulations
- Consolidation of Public Sewerage Systems Regulations

If municipal waste disposal sites are included in the waste disposal plan, it should be certain that municipal systems have been approved to receive such waste.

The e-mail comment made specific reference to the campsite proposed at Arctic Circle Lodge. It referred to Disposal Methods 2.4 (b) Sewage, and noted that disposal of sewage is not outlined in this section, and has been identified as not applicable. However in Appendix A Sewage is to be piped 250 m west of the main lodge. What level and capacity of on-site sewage treatment does the company plan for?

### **Department of Fisheries and Oceans**

DFO provided comments in an e-mail on May 11, 2007. Great Bear Lake, associated lakes and rivers are fish habitat. The fish in these waters are utilized by Aboriginal peoples and by recreational fishers. Extreme care must be exercised when proponents are working near these waters or transporting fuels via these waters. DFO concludes that the proposed project will not likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat provided that the following mitigation measures are implemented.

- Every effort should be made to retain riparian vegetation, as it is critical for the protection of littoral and riparian fish habitats as well as for providing cover and enhancing bank stability. Drill sites and camps should be located 30 metres back from the high water mark of any water body.
- If fording of creeks is required, DFO encourages a one time (across and back) access only. A single crossing location for all machinery should be sought based on the type of fish habitat present and the stream morphology. If fording of a fish bearing stream is a requirement of this project, specific DFO advice/review should be sought.
- All drill cuttings should be disposed of on land and suitably contained/stabilized.
- All wastes, sewage containments, sumps and fuel caches should be located 100m back from the normal high water mark of any water body; and be sufficiently bermed or otherwise contained to ensure these substances do not enter any water body during or after drilling activities.
- The Freshwater Intake End-of-Pipe Fish Screen Guideline (DFO 1995) is applied to all water intakes. To prevent the entrainment of fish, the mesh size should not exceed 2.54 mm. The intake should not disturb the substrate and the screen should be cleaned regularly.
- If artesian flow is encountered, drill holes should be plugged and permanently sealed upon completion of the project.
- Excessive water withdrawals can lead to the loss of fish and fish habitat. When withdrawing water during the open water season please ensure that adequate water remains in the waterbody to allow for the summer survival of fish.
- All works must be conducted in a manner that minimizes the release of sediment and sediment-laden water into any watercourse. Control measures must be applied as required in order to achieve this at the work site.
- Sediment and erosion control measures should be implemented and maintained prior to, during and after construction to prevent the entry of sediment into any water body.
- Equipment operating near any waterbody should be free of external fluid leaks, grease, oil and mud. All activities including maintenance procedures and vehicular refuelling should be controlled to prevent the entry of petroleum products, debris, slash, rubble or other deleterious substances into any water body.
- Spills of oil, fuel or other deleterious material should be reported immediately, as per the existing reporting protocols, to the NWT 24 -hour Spill Report Line, including all spills near or into a water body.

In an e-mail letter dated June 26, 2007 responding to the amended application for camp re-location to the Vance Peninsula, DFO added the following comment;

- The proponent was made aware of the Freshwater Intake End-of-Pipe Fish Screen Guideline (DFO 1995) via letter dated May 10, 2007 to the SAHTU Land & Water Board and carbon copied to Hunter Bay resources Ltd., however, the amendment still states that " water will be drawn from Great Bear Lake with a cylindrical stainless-steel screen for filtration of solids." This does not go far enough to prevent the entrainment or impingement of fish. In addition, the intake should not disturb the substrate and the screen should be cleaned regularly.

#### DIAND North Mackenzie District

In a letter dated June 12, 2007 the DIAND North Mackenzie District office said that inspectors from the Norman Wells office had conducted an inspection of Arctic Circle Lodge and found several outstanding issues. They included;

- the status of the lease itself.
- in terms of sewage waste treatment and storage facilities at the lodge, concerns remain in relation to capacity and location/proximity of the facility to water.
- solid waste disposal site and related tenure issues.
- fuel storage on site, its proximity to water and lack of secondary containment.
- DIAND remains of the position that it will not support this application until Hunter Bay Resources identifies an alternate camp site to support its operations.

#### Deline Land Corporation

*Chabryak*  
In a fax letter dated June 19, 2007 the Deline Land Corporation said that:

- it supports the application submitted by Hunter Bay Resources.
- it will make sure Hunter Bay conforms to the A&B agreement and the land use permit.
- Hunter Bay will hire Heritage Site Monitors to scout the target area prior to commencing exploration each year, and the company has undertaken to modify the exploration program, should it be necessary, to avoid heritage locations.
- Hunter Bay will hire Wildlife Monitors to ensure the impact on wildlife is minimized.

Hunter Bay has committed to providing an annual update to the Deline people on the activities carried out in the previous exploration season and the planned activities in the upcoming exploration season.

#### GNWT - Municipal & Community Affairs, Office of the Fire Marshal

A fax dated June 20, 2007 was received from the Office of the Fire Marshal offering comments regarding camps and fuel facilities. The camp is located on the Vance Peninsula.

The Fire Marshall commented that this work shall comply with requirements of the 1995 National Building Code (NBC), Part 9 for the construction camps, and the 1995 National Fire Code (NFC) for the fuel facilities and related standards. Comments noted:

- The National Energy Board, and the Government of Canada – Indian Affairs and Northern Development have jurisdiction over these facilities as well. The Federal Fire Safety Authority should be contacted for these types of facilities.
- Tents shall be fire retardant in accordance with the Fire Marshal's technical bulletin.
- All camps with more than 10 people sleeping in the building require a complete fire alarm system.
- Confirm that all fire safety equipment, fire alarm systems, emergency lighting, fire extinguishers, fire separations, fire rated doors, exiting etc, are code compliant.
- Exit doors shall swing out in the direction of exit travel for the camp buildings.
- Post emergency evacuation plans with the telephone numbers of the RCMP, ENR, the health centre, the local airline and helicopter firms telephone numbers for emergencies.
- All fire rated doors for the bedrooms, service rooms and other areas required by the code shall have door closers installed.
- All fuel lines and fuel hoses must be code compliant.
- Fuel facilities shall be 100 metres from any water body.

#### DIAND Land Use Inspector

The DIAND Land Use Inspector submitted a reply in an e-mail letter dated June 25, 2007. The reply said that there are no further comments to submit. There are no concerns with the proposed location of the camp.

#### Environment Canada

*- what about fire comments?*  
In a fax letter dated June 26, 2007 Environment Canada said that they have reviewed the amended land use permit application and provide specialist advice based primarily on the mandated responsibilities of Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act*, *Species at Risk Act (SARA)*, and the *Migratory Birds Convention Act*. Environment Canada's comments reflect the campsite located on the Vance Peninsula.

- Timely disposal of camp waste - specifically food waste - is of critical importance to minimize safety risks associated with wildlife attraction. Timely disposal is usually achieved through burning. Burning should only be considered after all other alternatives for waste disposal have been explored.
- The proponent should ensure that combustible waste is burned in a device that promotes efficient combustion and reduction of emissions and is capable of meeting the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions.

- The use of appropriate waste incineration technology should be combined with a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of waste produced, transported, and disposed of.
- Used absorbent materials, oily or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants) should be stored and transported in sealed containers (odour free to prevent animal attraction) and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.

#### The Sahtu Renewable Resources Board

In a fax letter dated June 26, 2007 responding to the amended application for camp relocation to the Vance Peninsula, SRRB added the following comment;

- The Sahtu Renewable Resources Board is not satisfied that all requirements have been met.
- Lack of consultation with the community. There is no evidence of the proponent's efforts to consult with the community of Deline on the location and operation of the proposed camp. As well, the location of the camp seems to be fairly close to a sensitive area identified in the TK Study. The SRRB recommends the approval of the camp location and operations by the community of Deline and the Deline Renewable Resources Council.
- SRRB feels that all these issues (including those stated in May 11 /07 recommendation letter) must be considered by the Sahtu Land & Water Board prior to making a decision to approve Hunter Bay Resources land use permit application and also during the draft permit conditions review process.

#### 4.1 Attachments

1. E-mail from Stanton Territorial Health Authority dated May 11, 2007
2. E-mail from Dep't. of Fisheries and Oceans dated May 11, 2007
3. Letter from DIAND North Mackenzie District dated June 12, 2007
4. Fax letter from Deline Land Corporation dated June 19, 2007
5. Fax letter from Sahtu Land Use Planning Board dated June 20, 2007
6. Fax from GNWT/MAÇA Office of the Fire Marshal dated June 20, 2007
7. E-mail letter from DIAND Land Use Inspector dated June 25, 2007
8. Fax letter from Environment Canada dated June 26, 2007
9. E-mail letter from Dep't. of Fisheries and Oceans dated June 26, 2007
10. Fax letter from Sahtu Renewable Resources Board dated June 26, 2007

*Note:  
The report should have contained outstanding concerns from the first letters received May/07 - these issues still exist but are not recapped here!*

## 5. Conclusion

The Board did exercise Part 22, Sub-part 2(b) of the Mackenzie Valley Land Use Regulations to ensure DIAND sufficient time for further assessment of this project in terms of evaluating the proposed fuel site storage sites, and the new location Hunter Bay Resources did propose to establish their support camp.

The Preliminary Environmental Screening Report did not identify any Adverse Environmental Impacts or Public Concerns. All potential environmental impacts identified during public consultation and by referral agencies can be mitigated with known technology and have been addressed in the Terms and Conditions of the Land Use Permit.

The Preliminary Environmental Screening Report, and the Land Use Permit with Terms and Conditions, have been submitted to the Board for approval. Should the Board grant approval, the Permit could be issued on July 3, 2007 pending no objections from the MVEIRB.

## 6. Recommendation

The Preliminary Screening Report determined that the development proposal would have no Adverse Environmental Impact, or Public Concern. It is recommended that the SLWB proceed with the regulatory process and implementation by issuing the Land Use Permit, conditional on the Preliminary Environmental Screening Report being accepted by the MVEIRB.

## 7. Reference Material Attached

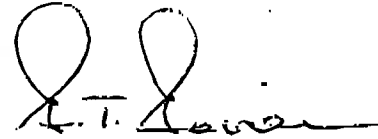
- 7.1 Map of Permit Area. (Note: Campsite re-located)
- 7.2 E-mail from Stanton Territorial Health Authority dated May 11, 2007
- 7.3 E-mail from Dep't. of Fisheries and Oceans dated May 11, 2007
- 7.4 Letter from DIAND North Mackenzie District dated June 12, 2007
- 7.5 Fax letter from Deline Land Corporation dated June 19, 2007
- 7.6 Fax letter from Sahtu Land Use Planning Board dated June 20, 2007
- 7.7 Fax from GNWT/MACA Office of the Fire Marshal dated June 20, 2007
- 7.8 E-mail from Hunter Bay Res. to DIAND (Armin Johnson) dated June 21, 2007
- 7.9 E-mail from Hunter Bay Res. to GNWT/MACA Office of the Fire Marshal dated June 22, 2007 11:10
- 7.10 E-mail from Hunter Bay Res. to GNWT/MACA Office of the Fire Marshal dated June 22, 2007 13:22
- 7.11 E-mail letter from DIAND Land Use Inspector dated June 25, 2007
- 7.12 Fax letter from Environment Canada dated June 26, 2007
- 7.13 E-mail letter from Dep't. of Fisheries and Oceans dated June 26, 2007
- 7.14 Fax letter from Sahtu Renewable Resources Board dated June 26, 2007



*[Faint, illegible text]*

Respectfully submitted,

Land/Resource Geographer



G.T. Govier  
Executive Director

Executive Director Comments:

*Agree with Conclusion + Recommendation  
Recommend to issue Permit.*