



# Sahtu Land and Water Board

## Staff Report

<b>Division</b> Land Program	<b>Report No.</b> 01
<b>Date Prepared:</b> August 24, 2004	<b>File No.</b> S04A-006 / S04L1-006
<b>Meeting Date:</b> September 8, 2004	

**Subject:** Type A Land Use Permit and Type B Water Licence Applications by Northrock Resources Ltd. for exploratory oil and gas drilling in the Summit Creek area on Sahtu Lands and Exploration Licence 397 in the Tulita District.

### 1. Purpose/Report Summary

To inform the Board of a Type A Land Use Permit and Type B Water Licence applications by Northrock Resources Ltd. for exploratory well drilling 60 km SSW of Tulita in the Summit Creek area on Sahtu Lands and Exploration Licence 397 in the Tulita District.

### 2. Background

#### 2.1 Project overview

This program will be called Summit Creek 2004/2005 drilling program, to identify the activities as separate and distinct from the Northrock Summit Creek B-44 drilling program LUP S02A-004. Four drilling sites are proposed. Northrock Resources Ltd. (NRK) plans to drill one exploratory well on either Sub-Surface Land Parcel M-37, Sahtu Lands under an Access Agreement with the Tulita District Land Corporation (TDLC), or on EL 397. The drilling program is being proposed to test the hydrocarbon potential from data received from the 2D Summer Seismic program. The Keele River Staging area will be utilized to transport fuel to the wellsite. A 34 person mobile sleigh construction camp and a 60 person stationary rig camp will be established. Approximately 10km of access will be constructed to the proposed wellsite from the existing S02A-004 access route. A Type B Water Licence for water usage will be required for road construction, drilling, and camps. The project time schedule is estimated to be 66 days.

#### 2.2 Process Requirements

A Type A Land Use Permit is required for the following activities: drilling operations, road construction, construction of a lease and a camp. The application with fees in the amount of \$760.00 was received on July 23, 2004.

A Type B Water Licence is required for road construction, lease construction, a campsite, drilling activities, domestic water usage for a 60 person rig camp and a portable 34 person sleigh camp. Road construction water usage is estimated at 3,500m<sup>3</sup>, to be drawn from km 59 lake. Rig camp water usage is estimated at 4,750m<sup>3</sup>. Drill waste will be deposited into a sump and mix-buried-covered.

Rig camp waste will be buried in a sump. The Water Licence application with fees in the amount of \$30.00 was received on July 23, 2004.

The applications were deemed complete August 5, 2004. The 42 day processing period ends on September 16, 2004. The applications were distributed to 28 referral organizations August 6, 2004, requesting a response by August 26, 2004.

### 2.3 Attachments

- Map - S04A-006/S04L1-006 Northrock Resources Ltd. Summit Creek 2004/2005 Drilling Project

## **3. Comments**

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

NRK has an Access Agreement for Sub-Surface Land Parcel M-37, Sahtu Lands, and a Benefits Plan for EL 397 in place with the Tulita District Land Corporation.

#### 3.1.2 Community Consultation

##### Norman Wells Community Meeting, June 3, 2004

The Ernie McDonald Land Corporation (EMLC) held consultation with 6 community members and Northrock Resources Ltd. representatives in attendance:

##### EMLC attendees:

Ruby McDonald

Winter Lennie

Ceci McCauley

Tony Grandjambe

Pamela Lennie

Todd McCauley

##### Northrock attendees:

Laurier Laprise

Art Stirrett

Northrock representatives reviewed last winter's drilling program, the summer seismic program and the 2004/2005 winter drilling program. The following points were communicated:

- A lot of manpower will be required to complete the seismic program inside of a two month time frame.
- Stewart Lake airstrip is required for fixed wing air support, re-fueling, etc.
- Northrock expressed that the winter drilling program is dependent on results from the summer seismic program.
- All attendees thought that the seismic and winter drilling programs were of significance to members of the community and the Sahtu region.

##### Hamlet of Tulita Community Meeting, July 21, 2004

A community meeting was held on July 21, 2004 between 7:00 PM and 9:00 PM. Northrock representatives summarized the proposed winter drilling and construction activities associated with drilling one new well, together with completions of the B-44 project in the Summit Creek area. The following points were addressed:

- Four potential drill locations were identified, but only one will be drilled. The location will be disclosed following reports from the summer seismic program.

- The total depth of the new well will be 3650m, 590m deeper than the well at the B-44 wellsite.
- An alternate route for the access road has been scouted to avoid the km 42 hill. A safer, easier route has been selected to avoid the tow hill. The old km 42 hill will be reclaimed.
- Northrock's preference is to resource as many services and qualified workers as possible from the Tulita District.
- Northrock indicated a preference to hire local companies whenever possible. Community members requested that they be informed with up-to-date information as the work activities progress.

Ernie McDonald Land Corporation Committee meeting, July 28, 2004, Norman Wells

The Ernie McDonald Land Corporation (EMLC) comprised of 10 committee members, together with Northrock Resources Ltd. representatives, held consultation at the EMLC office. The following points were discussed:

- Equipment will be barged in and staged at the Keele River Staging Area. The timing of other activities is dependent on freeze-up, i.e. access construction. The rig will be brought in January 2005. Drilling activities are expected to last 66 days. When drilling is completed the rig will be trucked off the lease.
- Employment opportunities will be made available at the drilling rig and camp, completion rig and camp, as well as access construction and maintenance crews.
- One access modification will be put in place at the km 42 hill to minimize side hill grades and the uphill slope. This change will enhance safety and address potential environmental concerns with the old route.

3.1.3 Traditional Environmental Knowledge

Mackay Range Contracting and Lemon Ventures Incorporated (LVI) have prepared "*The Stewart Lake Traditional Ecological Knowledge Study*". This study is site-specific Traditional Environmental Knowledge for Northrock's proposed 2004/2005 drilling program. The methodology of this study was to interview area-specific knowledgeable land users in the Tulita District and correlate this information with a GIS database. The result is an overlay of information in ArcMap format for the program area. The information identifies the cultural, wildlife and vegetative layers in the proposed winter drilling project area. The following summary identifies responses from community members interviewed for this study:

- All disturbances at Stewart and Tate Lakes must be minimized. These areas are vital ecosystems to the Mountain Dene people.
- The access road from previous work programs is a few metres away from Stewart Lake, and is considered an extreme potential hazard.
- The study group would like to receive from Northrock, maps and shapefiles for all activities in the area.
- Oral history of the Mountain Dene People indicates that as many as 1,000 people may have habitated this area.

Recommendations from community members interviewed for this study:

- Work activities in the Caribou and Flintstone range will try to avoid close contact with wildlife.

- All materials used and wastes produced during the work activities to be removed from worksites.
- Community environmental monitors should participate in all aspects of the program, and be present on each work crew.

## **3.2 Potential Environmental and Mitigation Measures**

### **3.2.1 Physical Chemical Environment**

#### *Ground Water*

*Water Quality Changes* - Northrock has a Fuel Oil and Spill Contingency Plan in place. The project will be conducted during winter conditions (frozen ground and snow cover) when spills are highly visible, and can be cleaned-up before infiltration occurs.

#### *Surface Water*

*Flow Level or Changes* – Domestic water for the camps will be taken from nearby lakes. Bottled drinking water for the camps will be brought in. Water withdrawal for drilling will come from specified lakes in the program area upon approval.

*Water Quality Changes* - Fuel caches will be set-back a minimum of 100m from the high water mark of any water body. No materials will be stored on the surface ice of any waterbody or within 100m of the normal high-water mark. Camps will be set-back a minimum of 100m from the high-water mark of any waterbody to reduce the potential of infiltration of blackwater.

#### *Noise*

*Noise Increase* - Conducting the program during the late winter will minimize activity during critical periods for wildlife (Spring and Fall). Noise will be limited to the access road and drill sites. Noise will be transient (along access) and local and temporary (access and wellsite).

#### *Land*

*Soil Contamination* – Fuel sleighs will be equipped with secondary containment to prevent accidental spillage. Northrock has a Fuel and Oil Spill Contingency Plan in place. The project will be conducted during winter conditions (frozen ground and snow cover) when spills are highly visible and can be cleaned-up before infiltration occurs.

*Soil Compaction & Settling* - Access will be constructed using snow and ice that will create a protective layer over the soil profile. Bulldozers will be equipped with shoes for the blades to prevent disturbance to soil and vegetation. Removal of vegetation and soil will be restricted to the wellsite.

*Destabilization/Erosion* - Stream crossings will be at the most level locations possible, constructed using clean snow fill, and will be at 90 degrees to the banks. Watering the access road will further reduce potential for erosion. Felled trees will be windrowed within the right-of-way. If ground disturbance does occur, it will be recontoured and reseeded with an approved mix immediately, and inspected within one full growing season.

*Permafrost Regime or Alterations* - Wherever possible, existing cut lines will be utilized for access to limit new clearing. Frozen ground conditions will limit potential damage to surface soils and permafrost. Cat blades will have protective shoes to elevate the blade, leaving some snow cover to protect vegetative mat and, thereby, reduce potential for erosion and damage to permafrost. Drilling waste will be mixed-buried-covered. The sumps will be covered with excess material placed on top to account for settling. The access and well site will be monitored for melting permafrost from solar exposure and rutting in the event of warming conditions.

#### *Non-Renewable Resources/Air/Climate/Atmosphere*

*Resource Depletion* - The project itself will not deplete local non-renewable natural resources.

#### *Air/Climate/Atmosphere*

*Greenhouse Gases* - Vehicles, heavy equipment and drilling operations will emit greenhouse gases but are necessary to conduct the project. Reservoir productivity testing may include flaring. Flaring will be conducted in accordance with accepted and required testing practices and regulations.

### 3.2.2 Biological Environment

#### *Vegetation*

*Species Composition* – Predominant vegetative cover is Black Spruce in poorly drained, muskeg areas, with White Spruce and Aspen in drier areas. A significant portion of the access route and wellsite are contained in an older burn (1977-78).

*Species Introduction* - Vehicles and equipment shall be inspected and cleaned to ensure that weeds, naturalized, foreign or exotic plant species are not introduced.

#### *Wildlife and Fish*

*Special Concern or Threatened Species* - The Committee on the Status of Endangered Wildlife Species in Canada (COSEWIC) lists Grizzly Bear and Wolverine as species of Special **Concern**; the Anatum Peregrine Falcon and Woodland Caribou as Threatened species.

- Although unlikely to be present in the program area, NRK personnel should be directed to look for evidence of bear denning activity.
- The activities of this project will not disturb cliff ledges, known to be the habitat of the falcon.
- Woodland Caribou suffer from a combination of natural predation, habitat fragmentation or destruction, human disturbance, and intense hunting activity. Caribou are considered a major food source by aboriginal residents. Caribou populations in the region are considered healthy.

*Fish Population Changes* – Fuel caches will be setback a minimum of 100m from the ordinary high water mark of any waterbody. Should a spill occur the NWT 24 Hour Spill Line will be called. If any deleterious materials fall into a water body, it will be removed immediately.

*Breeding Disturbances* - Program conducted during winter conditions to avoid critical breeding and birthing periods for wildlife (late Spring and early Fall).

*Population Reduction* - The project has a potential to indirectly cause population reduction through increased stress from disturbance, habitat change, increased predation or hunting pressure. The project is not expected to directly cause any significant population reduction. Mitigation measures listed under rare/threatened species, habitat effects, and game species effects apply.

*Habitat Changes/Effects* – No endangered species have been identified. Crews will be restricted to movement along the access road. Slash will be windrowed with 7m breaks every 330m to allow passage of wildlife.

*Game Species Effects* - The disturbance is short in duration and localized. Breaks in windrowed slash will allow passage of wildlife.

*Wildlife May be Attracted to Garbage or Harmed by Debris from Operations* – Combustible waste will be incinerated on site. Non-combustible waste will be removed from the program area to Tulita or Norman Wells for disposal. Sumps will be fenced-off.

*Forestry Changes* - Windrows will have 7m breaks every 300m to allow passage by animals and reduce the potential of forest fires. Existing cut lines will be utilized for access wherever possible. Line widths will be restricted to 1.5m and cut with tree avoidance techniques. Portions of the program are located in burn areas

### 3.2.3 Interacting Environment

#### *Habitat and Communities*

*Wildlife Habitat/Ecosystem Composition Changes* – Improved access through the area will assist Tulita residents.

*Reduction/Removal of Keystone or Endangered Species* - Caribou winter habitat has been identified on the Flintstone range above the tree line. Disturbance will be limited to the wellsite and existing access.

*Removal of Wildlife Corridor or Buffer Zone* – Slash will be windrowed with 7m breaks every 330m to allow passage of wildlife.

#### *Social and Economic*

*Increase in Urban Facilities or Services* – Local personnel and business will be employed wherever possible.

*Human Health Hazard* - The drilling camps will utilize sumps for the disposal of sewage waste (blackwater). The sumps will be located at least 100m from the ordinary high water mark of any water body. Fuel caches will be setback a minimum of 100m from the ordinary high water mark of any water body. Drilling will utilize a non-toxic, freshwater-based gel chem. drilling fluid as well as a mineral oil based or salt based drilling fluid. Drilling waste will be disposed of in a sump using the mix-bury-cover method. No materials will be stored on the surface ice of any waterbody or within 100m of the ordinary high-water mark. The program will be conducted during winter conditions (frozen ground and snow cover) when spills are highly visible and can be cleaned-up before infiltration occurs.

*Quality of Life Changes* - Access into the area will be improved. Local personnel and businesses will be employed wherever possible. An Access Agreement and Benefits Plan have been signed which will contribute to the local economy through employment of personnel, contractors and businesses. The approximate total of persons working on the project is 54-62, with approximate local employment opportunities between 40-49 persons for 535 days, for a total of 2463-3057 Local Person Days of work for this program.

### *Cultural and Heritage*

*Increase Pressure on Archeological Sites* – While there are cultural heritage sites near the program area, none are impacted by the project. If a suspected site is discovered during the conduct of the project, workers will not disturb the site. The SLWB and the Prince of Wales Northern Heritage Centre will be contacted for advice.

*Effects to Aboriginal Lifestyle* – If any existing trails are crossed, a gap will be left in the windrow to allow access across the trails.

### **3.3 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 Preliminary Environmental Screening Report is attached. The report concludes that the environmental impact of the proposed project can be mitigated with known technologies and that no 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.

### **3.4 Conformity with Land Use Plan**

A referral letter dated August 24, 2004 from the Sahtu Land Use Planning Board (SLUPB) certifies that there is a Preliminary Draft Land Use Plan; however, there is no approved Land Use Plan for the area affected by the application. The SLUPB confirms that the Sahtu Land and Water Board has met the referral obligations as outlined in the Mackenzie Valley Resource Management Act.

Special Management Area - Stewart Lake has been identified as a Special Management Intensive Traditional Use Area. Oil and Gas Exploration and Development is an acceptable activity in this Traditional Use Area.

Conservation Area – Keele River is designated as a Conservation Area. The drilling program with proposed exploration activities would be in conformity with the Preliminary Draft Plan for this area; however an approved Land Use Plan does not currently exist for the Sahtu Region.

### **3.5 Draft Permit/Draft Licence**

Drafts of the Permit and the Licence are attached.

### **3.6 Terms and Conditions**

Draft Terms and Conditions are attached for the Permit and the Licence.

## **4. Other Agency Comments**

The application was circulated to 28 organizations requesting a reply by August 26, 2004. Organizations were initially contacted on August 6, 2004. To date 9 written responses have been received. The following organizations offered comments on the application:

#### 4.1.1 Sahtu Renewable Resources Board

The Sahtu Renewable Resources Board is satisfied that all requirements have been met, provided that the following conditions are followed:

- Land use operations will be suspended or shut down if caribou and/or muskox are spotted within 500m of any work/camp site.
- Department of Fisheries and Oceans (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 Department of Fisheries & Oceans regarding impacts to fish and fish habitat.
- Trained environmental monitors familiar with the Summit Creek area will be utilized and hired through the Tulita and Norman Wells Renewable Resources Councils.
- At least one week prior to commencement of the program, community residents and organizations in Tulita will be notified via posted notices
- If re-seeding is required, it is hoped that every effort will be made to use a native seed source or, if not possible, to ensure that an uncontaminated seed source is used.

#### 4.1.2 Department of Fisheries and Oceans

The Department of Fisheries and Oceans (DFO) has issued a Letter Of Advice. The following mitigation measures if implemented should prevent any potentially harmful impacts to fish and fish habitat. These measures include:

- 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.
- Water volumes should be carefully tracked to ensure the 5% maximum withdrawal of available volume under an ice cover of 1.5 metres is not exceeded. **At the conclusion of the winter drilling program, a properly corroborated record of water withdrawal for each water source should be submitted to DFO.**
- Water intakes should be properly screened with fine mesh of 2.54mm (1/10") to prevent the entrainment of fish. Refer to the *DFO Protocol for Water Withdrawal for Oil & Gas Activities in the NWT* and the *Freshwater Intake End-of-Pipe Fish Screen Guideline* (DFO 1995).
- "Mushroom shoes" or "boots" on the blades of vehicles (i.e. loaders) are recommended as a protective measure to minimize ground disturbance and erosion during activities such as winter access and wellsite construction.
- The number of winter crossings should be reduced as much as possible. Crossing locations should be selected that would require the least amount of snowfill and water to construct.
- To avoid additional freeze-down of deep-water pools, potentially harbouring overwintering fish, watercourses should be crossed at shallow riffle areas.



- Cutting of crossing approaches is not permitted unless approved in writing by DFO. The preferred method for crossing to avoid the cutting of banks is with the construction of snow ramps. Refer to *DFO Protocol for Temporary Winter Access Water Crossings for Oil & Gas Activities in the NWT*.
- The use of material other than ice or snow to construct a temporary crossing-over of any ice-covered stream is prohibited under Section 11a of the *Northwest Territories Fisheries Regulations*, unless authorized by a Fishery Officer. **This includes the proposed use of culverts when the access crosses local draws and minor streams.**
- Winter crossings should not impede water flow and should be v-notched or otherwise removed prior to spring break-up. If winter crossings are not removed they have the potential to block fish passage often necessary to access spawning grounds.
- Provide co-ordinates for all constructed crossings in accordance to the *DFO Protocol for Temporary Winter Access Water Crossings for Oil & Gas Activities in the NWT*.
- Reclamation activities should include bank stabilization and re-vegetation as required, including access points to the Mackenzie River. This work should be completed prior to Spring thaw.

In pursuance to subsection 36(3) of the *Fisheries Act*, DFO cites the following additional mitigation measures to prevent the deposition of deleterious substances and possible habitat disturbance or loss:

- All activities including maintenance procedures and vehicle refueling (including aircraft), should be controlled to prevent entry of petroleum products, debris, slash, rubble, or other deleterious substances into the water.
- A 100 metre buffer should be maintained between the wellsite and the high water mark of any waterbody.
- All wastes, drill cuttings, sewage and wastewater contaminants, should be located a minimum 100m from any water body, including ephemeral drainages if possible, and be sufficiently bermed or otherwise contained to ensure that these substances do not enter any waterbody. **Due to the concerns with the potential for sump failures, DFO encourages alternate waste disposal methodologies.** As previously noted, it is assumed that sumps will not be utilized due to the lack of appropriate soil conditions.
- Fuel storage should have secondary containment (such as doubled walled tanks, berms, etc.) that is sufficient to ensure that fuel will not be able to enter any waterbody. There is a discrepancy regarding the setback distance for fuel from a waterbody; 100 metres vs. 30 metres. This should be clarified.
- No material should be left on the ice when there is the potential for that material to enter the water (i.e. Spring break-up).
- A Spill Contingency Plan should be made available to all persons required to work on site and followed in the event of a spill.
- Spills of oil, fuel, or other deleterious material should be reported immediately, as per existing reporting protocols, to the NWT/Nunavut 24-Hour Spill Report Line at (867) 920-8130, including all spills near or into a waterbody.

"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."

#### 4.1.3 Prince of Wales Northern Heritage Centre

#### 4.1.4 DIAND Land Use Inspector

#### 4.1.5 DIAND – Water Resources Officer

#### 4.1.6 Mackenzie Valley Land and Water Board

The MVLWB considers the project is not likely to have an impact in more than one settlement area as per Part 4, Section 103(1)(a) of the *Mackenzie Valley Resource Management Act*.

#### 4.1.7 National Energy Board

The NEB provided advice on the scoping of the project, which has been incorporated into the Preliminary Screening Report. The NEB recommended to take into consideration various sections of the *Drilling Regulations* pertaining to spill contingency planning, site assessment, waste management, and handling of any petroleum products produced from the well. The following items should also be noted:

*The Canada Oil and Gas Operation Act and Regulations* apply to all oil and gas works activities on Crown lands and Sahtu private lands;

- All operation related spills as outlined in the NEB's July 2003 "Spill Reporting Protocol for Upstream Oil and Gas Operations", will be reported to the 24-Hour NWT Spill Line (867) 920-8130. The Spill Line contractor will assign the appropriate lead agency, i.e. DIAND;
- The Chief Conservation Officer (CCO) notes that Northrock and any contractors must meet the requirements of the Occupational Safety and Health (OSH) Regulations for the development;
- Potable water quality of camps are regulated by the NEB, under the OSH Regulations;

The NEB will review Northrock's and/or any contractor's emergency response/spill contingency information with respect to:

- i) procedures for the activation of the plan;
- ii) an identification of, and response tasks of, the personnel,
- iii) an identification of available resources (including contact lists),
- iv) an acceptable level of preparedness (hazard analysis, training, and maintenance of response equipment),
- v) response procedures for environmental spills (including fuel spills and equipment leaks),
- vi) a waste management plan (from operations, equipment maintenance, personal garbage, and camp operations),
- vii) fuel storage plan,
- viii) emergency response procedure in case of fire,
- ix) decision flow charts, and,
- x) emergency and spills reporting forms and procedures.

#### 4.1.8 Environment Canada

Environment Canada's advice for this project is based on Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act (CEPA)*, *Species at Risk Act (SARA)*, and the *Migratory Birds Convention Act (MBCA)*. Environment Canada recommends that the following conditions be applied throughout all stages of the project:

- The proponent shall not deposit, nor permit the deposit of chemicals, sediment, wastes, or fuels associated with the project into any water body. Fisheries Act, Section 36(3) cites that the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- Release of treated black water into the Mackenzie River may be in direct contravention of the Fisheries Act, Section 36(3). Grey water and treated black water should be contained in sump located such that the contents do not enter water frequented by fish.
- Any sumps, pits, spill basins and fuel caches shall be located above the high water mark of any waterbody and in such a manner as to prevent the contents from entering any waterbody frequented by fish. Maintaining a buffer of a specific distance may not always be an adequate preventative measure.
- The use of drip pans, or other similar preventative measures, when refueling equipment on site.
- The proponent shall ensure that all hazardous wastes, including waste oil receive proper treatment and disposal at an approved facility.
- The use of an approved incinerator for the disposal of combustible material.
- All non-combustible solid wastes (i.e. potable water bottles) shall be disposed of at an appropriate facility, i.e. Yellowknife, NWT or Inuvik, NWT. The proponent is encouraged to make use of recycling facilities for all recyclable materials.
- The proponent should have a Spill Contingency Plan in place prior to establishing any fuel caches.
- The use of secondary containment with an impervious liner, such as self-supporting insta-berms, for storage of all barreled fuel, rather than relying on natural depressions to contain spills.
- Fuel caches shall be inspected on a regular basis.
- All spills are to be documented and reported to the NWT 24-Hour Spill Line at (867) 920-8130.
- Spill contingency plans should include locations of disposal sites approved to accept wastes and means of storage prior to disposal.
- Any spills of wastes or hazardous materials shall be reported immediately to the NWT 24-Hour Spill Line, number (867) 920-8130.
- For larger spills, equipment and material is to be requested from Imperial Oil in Norman Wells and/or Enbridge Pipelines at Tulita or the KP 160 station.
- For an effective spill response, there must be some expertise on site to direct the equipment deployment operations. To ensure that the Spill Response Team is prepared for spill situations in a reasonable manner, hands-on training and familiarization with equipment used for spill containment and recovery is critical.

- Personnel should be aware of the properties of the products that they handle and have access to material safety data sheets (MSDS) and other sources of information.

The Canadian Wildlife Service (CWS) of Environment Canada makes the following comments and recommendations pursuant to the Migratory Birds Convention Act and Regulations, and the Species at Risk Act:

- Section 6 (a) of the Migratory Birds Regulations states that **no one shall disturb or destroy the nests or eggs of migratory birds**. Drilling activity for this project is scheduled to occur outside the migratory bird breeding season, May 1-August 1, and as long as drilling activities occur between October 2004 and April 2005, CWS does not foresee any direct impacts on nesting or moulting birds.
- Section 35 of the Migratory Birds Regulations states that no person shall deposit or permit to be deposited, oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.
- Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds, but will not necessarily ensure that the proponent remains in compliance with the Migratory Birds Convention Act (the Act) and Migratory Birds Regulations (the Regulations). The proponent must ensure they remain in compliance with the Act and Regulations during all phases and in all undertakings related to the project.
- The Species at Risk Act (SARA) came into full effect on June 1, 2004. Species at risk that may be encountered in this area include: Peregrine Falcon (subspecies anatum) and Woodland Caribou (Boreal population) both listed as Threatened on Schedule 1 of SARA; and Grizzly Bear, Wolverine, short-eared Owl, all of which are listed as Special Concern on Schedule 3 of SARA. While conducting their operations, the proponent should be aware of the special status of species (as listed above), and minimize disturbance to, or contact with, these species.
- CWS recommends that camp waste should be made inaccessible to wildlife at all times. Camp waste can attract predators of migratory birds (i.e. foxes and ravens) to an area if not disposed of properly.
- All mitigation measures identified by the proponent, and the additional measure suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponents representatives (including contractors) conduction operations in the field. All field operations staff should be made aware of the proponent's commitments to these mitigation measures and provided with appropriate advice/training on how to implement these measures.

#### 4.1.9 Transport Canada

Transport Canada offers the following environmental screening considerations:

- Any hazardous products stored on site must be at least 100 metres away from any waterbody edge, and in an area that would enable containment, should a spill occur. All hazardous product storage facilities must meet regulatory requirements.
- Site workers should be aware of Spill Contingency Plan and the key people who are trained on response plan mechanisms. All spills should be reported to the regulatory agencies.

- All site fueling should be conducted at a designated fueling area with a secondary containment mechanism such as a berm and be a minimum of 100 metres from the nearest waterbody. Spill kits should be maintained at each area to clean up any spilled products. Construction equipment should be checked daily for leaks and repairs made to any faulty equipment.
- All waste and debris must be appropriately handled, stored, and disposed of by approved methods.
- Local vegetation in and around the project site will be affected, and landscape altered. Impacts should be confined to the foot print area, and considered to be minimal, as areas of natural clearing will be utilized where possible. The areas identified in the application requiring erosion control should be monitored to ensure satisfactory results.
- Environmentally friendly dust suppression methods should be employed to minimize dust pollution.
- Consideration should be given to any regulatory requirements that may affect the use of barges, tugs, and floatplanes, including but not limited to the Navigable Waters Protection Act, the Northern Waters Pollution Prevention Act, Transportation of Dangerous Goods Act, and the Marine Safety Act.
- Should a Navigable waters Protection Act Permit be required a formal application would be submitted directly to the Navigable Waters Protection Program Office for consideration.

#### 4.1.10 GNWT – Environmental Health Services

#### 4.1.11 GNWT – MACA – Land Administration

#### 4.1.12 GNWT – RWED

#### 4.1.13 GNWT – Department of Transportation

#### 4.1.14 GNWT - MACA – Fire Marshall, Norman Wells

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.
- Provide construction drawings and specifications for the 34 person mobile camp and the 60 person camp at the wellsite.
- 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.

#### 4.1.15 Town of Norman Wells

#### 4.1.16 Hamlet of Tulita

The Hamlet of Tulita offers the following comments to be addressed for activities within the municipal boundaries:

- Traffic within the municipality must obey all signs when using the access road during the winter season.
- Heavy equipment or large vehicles will require authorizations from the Hamlet to travel on municipal roads in the community.
- Users of municipal services such as the garbage dump, water delivery services, sewage disposal site, and the solid waste site must fill out an application at the municipal office to receive these services within the municipal boundary, or if transporting the above listed service items into the community from drilling sites or camps.
- The Hamlet of Tulita would appreciate notice in writing of any other activities conducted within municipal boundaries.

### **5. Conclusion**

The Preliminary Environmental Screening Report did not identify any Significant Adverse Environmental Impacts or Significant 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 and Water Licence.

The Preliminary Environmental Screening Report, the Land Use Permit and Water Licence with Terms and Conditions have been submitted to the Board for approval. Should the Board grant approval, the Land Use Permit and Water Licence could be issued on September 12, 2004 pending no objections from the MVEIRB.

### **6. Recommendation**

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

## 7. Reference Material Attached

- 7.1 Map of Permit Area.
- 7.2 Draft Preliminary Environmental Screening Report.
- 7.3 Draft Permit with Reasons for Decision.
- 7.4 Draft Licence with Reasons for Decision.
- 7.5 Draft Terms and Conditions for Permit and for Licence.

*Murray Peacock*  
*For*

Patrick Clancy  
Hydrologist

Respectfully submitted,

*Murray Peacock*

Murray Peacock  
Land/Resource Geographer

Executive Director Comments:

*Agree with Conclusion & Recommendation  
Recommend to issue Permit & Licence.*

*G.T. Govier*

G.T. Govier  
Executive Director