### KENNECOTT CANADA EXPLORATION INC

# Reclamation Plan for licenses

NWB2BRO0101(expired), NWB2BRO0203 (expired) and NWB2BRO0405 (current) and renewal application
October 2005

Brodeur Peninsula Project
Baffin Island, Nunavut

Kennecott Canada Exploration Inc. 354 - 200 Granville Street Vancouver, BC V6C 1S4

Revised April 2006

### **Preamble**

This Abandonment and Restoration Plan has been developed in respect of NWB2BRO0101, NWB2BRO0203 and NWB2BRO0405 licenses and applies to the Brodeur Peninsula Project operated by Kennecott Canada Exploration Inc. This document accompanies the renewal application dated October 27, 2005.

DIAND Land Use permit # N2005J0032 covers Crown land activities on the project.

## Introduction

This abandonment and restoration plan has been prepared for the Brodeur Peninsula Project and includes the St Josephs Camp located at 87° 52" 10' and 73° 14" 49" on the Peninsula, and for the drilling programs carried on the project. The project is located between latitude 73 ° 00' 00" and 74 ° 00' 00" and longitude -86 ° 00' 00" and -88 ° 40" 00'

The project is at an early exploration stage and as such this document has been constructed following exploration efforts that have been made in the region by Kennecott Canada Exploration Inc.

Kennecott Canada Exploration Inc and its partner Diamondex Resources intend to continue with exploration for the 2006 and 2007 field season. After this period a decision point will be reached regarding the continuation of the project.

# **History**

The St Joes campsite, 25km inland along the Jackson River, was established in 2002. The location of the St Joes camp is approximately UTM zone 16 Easting 472,026 and Northing 8,128,006 using a NAD 27 datum.

This campsite will continue to service the needs of the exploration for the 2006-07 field seasons. Following the exploration effort on the Brodeur Peninsula the following steps will be taken to ensure a thorough reclamation of the effected sites.



Brodeur Peninsula St Joes Campsite.

### Schedule

The abandonment and restoration of the campsite should take 5-15 days to complete and will take place after all exploration activities have ceased. If exploration activities dictate the finalization of the exploration project, it will be conducted between the 10th and 15th of September 2007 and no later than October 31st. The plan will be applied with the help of the project personnel under the supervision of the field supervisor.

## Infrastructure onsite

## St Josephs camp

- 1) 2 wood frame tents
- 2) 8 Aluminum Frame tents
- 3) 1 Generator
- 4) Electric bear fence
- 5) 1 canvas water reservoir
- 6) 1 wooden outhouse

# **Final Abandonment and Restoration Plan**

(N.B. All references to Yellowknife imply the G&G Expediting company warehouse and office site.)

# **Buildings and Content**

All the reusable equipment like tents, tent metal frames, stoves, mattresses, kitchen stove, refrigerator, other kitchen appliances and equipment, showers, hot water tank, etc...will be packaged and flown out to Yellowknife or an alternative campsite. Some equipment may be donated or sold to either the Resolute or Arctic Bay communities.

Wood structures like the dining hall, outhouse, dry, tent wood floors, bunk beds and table will be dismantled and incinerated on site. Nails, screws, anchors and other non-combustible parts will be recovered, packaged and flow out to an approved municipal discharge.

## **Water System**

Pump, tanks and hoses will be drained, dismantled, packaged and flown out to Yellowknife or an alternative campsite. Any wooden shed built to protect the pump will be incinerated as for the other wood structures.

## **Electrical System**

The generator shed will be inspected for remaining hazardous waste (oil, grease). The generator will be drained of its fuel. Remaining waste fuel and oil will be collected in the appropriately labeled containers, and removed offsite. The shed will be dismantled and flown out to Yellowknife or an alternative campsite. The soil will be inspected for contamination.

Electrical wires, sockets, etc...will be taken down and flown out to Yellowknife or an alternative campsite. Some equipment may be donated or sold to either the Resolute or Arctic Bay communities.

#### **Fuel and Chemical Storage Facilities**

The fuel storage area will consist of segregated groups of drums with empties apart from full drums. At the end of the field season, an inventory of remaining fuel will be made and full drums will be inspected. Full and empty drums will be flow out to Yellowknife or an alternative campsite. Some fuel may be donated or sold to either the Resolute or Arctic Bay communities. Currently there are 50 drums of diesel and 30 drums of Jet B at the camp site and 50 drums of diesel and 35 drums of Jet B at the Nanisivik airstrip.

Propane cylinders will be flown out to Yellowknife. There are currently 10 propane cylinders on site.

Remaining waste fuel, stored in properly labeled drums will be flown out to a fuel outlet or discharge that accepts this type of fuel. Chemicals stored on site will consist of drill additives, oil, grease and household cleaners. All drill additives will be stored in or by the drill foreman shed.

Household cleaners will mainly be stored in the kitchen. Upon camp closure, any unused drilling additive, oil or grease will be returned to Yellowknife. Half empty containers will be taken off site to be properly disposed in an approved discharge. Empty containers will be disposed with regular garbage.

Currently there are no drilling additives or chemicals stored at site with the exception of a minimal amount of cleaning solvents.

### **Waste Facility and Incinerator**

Once the camp is entirely dismantled, all remaining combustible waste stored at this site will be burned. The incinerator will be dismantled, reusable parts will be returned to Yellowknife and the barrel will be discarded in an approved municipal discharge.

#### **Greywater Sump**

The kitchen-dry greywater sumps will be filled back and leveled.

#### **Blackwater Sump**

The outhouses pit contents will be burned on a daily basis. At the end of the season the remaining pit will be filled back and leveled.

#### Helicopter pad

The helicopter pad consists of a well-worn gravel patch. This area will be inspected for contamination.

#### **Campsite**

The campsite will have a final inspection. Areas showing too much wearing evidences will be leveled. No plant life present exists at the campsite so no requirement is needed to promote any natural growth of flora. Drill core to be left on site will be properly stored and secured.

#### **Drilling areas restoration**

The drill will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drill will be flown out to another project, Yellowknife or to a storage site designated by the drilling contractor. All drill sites will be inspected for contamination. Any remaining waste will be taken to camp to be burned if possible or to be flown out to an approved municipal discharge. Greywater and sludge sumps will be filled and leveled.

As much as possible, drill sites will be restored immediately after the drill has been moved to the next site and sumps have drained enough to be leveled.

#### **Documentation and Inspection**

Photos of camp and drill sites prior to building of drilling will be taken. Monitoring will be done during occupancy and photos taken. Once the site restored, it will again be documented with photos.

Any soil contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan. Response to spills on land will include the Initial Actions listed in Section 4.0 of the Spill Plan and the following specific steps:

- 1) Identify the source of the leak or spill.
- 2) Contain the spill at the source if possible.
- 3) Stop a leak from a barrel by:
  - i. Ceasing filling operations if leaking vessel is receiving fuel
  - ii. Checking valves and seals, and ceasing use of these valves if leaking
  - iii. Transfer all fuels from leaking barrels
  - iv. Placing plastic sheeting at the foot of the leak to minimise seepage of the spilled material to the environment.

Spills on land (gravel, rock, vegetation) can be contained and cleaned up by the following methods:

- 1) Place a soil berm down slope of the running or seeping fuel. Plastic tarps can be placed at the foot of and over the berm to permit the fuel to pool on the plastic for easy capture. Berms can be made of snow and lined with plastic in the winter. Absorbent sheeting can be used to soak up the fuel. The fuel can be squeezed from the pads into drums or plastic pails, and the pads can then be re-used. Larger pools of fuel can be pumped into empty drums. It will be especially important to prevent fuel from entering a body of water where it will have a greater environmental impact.
- 2) Absorbent sheeting can be used to soak up petroleum products from rocks. The sheeting should be placed in the empty drums for eventual disposal by incineration.
- 3) A light covering of Sphag Sorb<sup>TM</sup> or alternate absorbent material can be used to absorb films of petroleum products from arctic vegetation.
- 4) Contaminated soil and vegetation may have to be removed by air transport for disposal. Kennecott will contact the appropriate INAC regional office for approval before undertaking this action.
- 5) Snow can work well as natural absorbent, and it can be compacted and used as a berm. Plastic sheeting then can be placed over the snow berm.

The permit holder will organize a final site inspection visit with community representatives, Land Use Inspectors and in collaboration with Nunavut Water Board staff, if requested.

## Seasonal Shutdown and Restoration Plan

## **Buildings and Content**

All tent structures will be secured for the winter. All the equipment like stoves, mattresses, kitchen stove, refrigerator, other kitchen appliances and equipment, showers, hot water tank, etc...will be left on site. The camp will be secured. No food (including tinned food) will be left onsite. All remaining food will be donated to the Arctic Bay community.

#### **Water System**

Pump, tanks and hoses will be drained and dismantled. Hoses will be rolled and stored in the work shed.

## **Electrical System**

The generator shed will be inspected for remaining hazardous waste (oil, grease) and will be drained of its fuel. Remaining waste fuel and oil will be collected in the containers labeled for that usage and used through the summer. The generator shed will be secured for winter. The soil will be inspected for contamination. Electrical wires, plugs and sockets will remain in their installed locations.

#### **Fuel and Chemical Storage Facilities**

An inventory of remaining fuel will be made and full drums will be inspected and secured for the winter. Empty drums will be flown out to source. Empty propane cylinders will be flown out to Yellowknife. Chemicals stored on site will consist of drill additives, oil, grease and household cleaners. All drill additives will be stored in the drill shed and secured for the winter. Empty containers will be disposed with regular garbage. The soil of the areas will be inspected for contamination.

#### **Waste Facility and Incinerator**

Once the camp is shutdown and buildings secured, all remaining combustible waste stored at this site will be burned. The incinerator will be dismantled and stored in the outhouse. The soil will be inspected for contamination.

#### **Greywater Sump**

The greywater sump will be covered and secured for the winter.

#### **Blackwater Sump**

The outhouses pit contents will be burned on a daily basis. The outhouse tent will be secured for the winter.

#### Helicopter pad

The helicopter pad consists of a well-worn gravel patch. This area will be inspected for contamination.

## Camp site

Areas contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan. Drill core to be left on site will be properly stored and secured.

#### **Drilling areas restoration**

Any drill equipment at site will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drill will be left on solid ground until next season. All drill sites will be inspected for soil contamination. Any remaining waste will be taken to camp to be burned if possible or be flown out to an approved municipal discharge. Greywater and sludge sumps will be filled and leveled. As much as possible, drill sites will be restored immediately after the drill has been moved to the next site and sumps have drained enough to be leveled.

#### **Documentation**

Equipment and buildings left on site will be inventoried. Photos of camp and drill sites prior to building of drilling will be taken. Monitoring will be done during occupancy and photos taken. Once the site secured for the winter, it will again be documented with photos.