

**Kennecott Canada Exploration Inc.**

***Exploration Operations Document***

***Northwest Territories and Nunavut***

***Thirty Mile Project***

**CONTINGENCY PLAN**

**for Material Spills,**

**in Exploration Camps, Remote Sites,**

**and Drilling Operations**

**November, 2004**

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## **Preamble**

This Contingency Plan is effective from date of entry to date of closing for all field locations and drilling operations in the Northwest Territories and Nunavut. The Plan is submitted as an attachment to Kennecott's Nunavut Water Board Application for water use on the 30 Mile Project.

The Plan is intended to cover all exploration activities and camps to be operated by Kennecott Exploration in the Northwest Territories and Nunavut. The Plan covers all operations, including drilling, if applicable, and aircraft operations, wherein the handling of substances able to be spilt are involved.

This Plan will be distributed to Kennecott site managers and site contractors working within the permit area. Regular site safety meetings are held whilst exploration sites are occupied, and include reviews of this Plan and other safety/environmental issues. The Plan will remain posted and available at site, and will be posted at any future camps.

This Plan was prepared and approved by Kennecott Canada Exploration Inc. Additional information or copies are available from Kennecott Canada Exploration Inc. at (604) 669-1880, Susan Ball.

## **1.0 INTRODUCTION**

### **1.1 Plan Purpose**

The purpose of Kennecott Canada Exploration Inc's Contingency Plan is to provide a plan of action for potential spill events that might occur at Exploration sites of activity. The Plan addresses any unintentional releases of petroleum products and other hazardous chemicals. It defines the responsibilities of key response personnel and outlines procedures to be taken to minimise the impact of a spill. The Plan has been prepared to provide to management and field staff the necessary information to deal with a spill.

### **1.2 Kennecott Policy on Cleanup**

It is Kennecott Canada Exploration Inc. policy to comply with all existing laws and regulations for the areas in which the company operates and to ensure protection of the environment in these areas. This Contingency Plan has been developed to comply with the Company's policy statement and to fulfil specific Canadian and Northwest Territories/ Nunavut regulatory requirements.

### **1.3 Facility Description**

A seasonally occupied camp will be established at \_\_\_\_\_ near the western shore of Pitz Lake in the spring of 2005. The camp area is anticipated to be approximately 100m x 50m and will consist of frame tents, a helicopter pad, fuel storage and an incinerator toilet. A 2000 l holding tank will be filled from a nearby stream; average usage is expected to be approximately 1000 l per day when the camp is occupied. The water will be pumped by hose and the intake covered by a mesh screen. All gray water will be discharged into a sump.

### **1.4 Petroleum Product Transport and Storage**

The petroleum products required for project work on site will be transported by air from Baker Lake, or – where available – will be purchased from Nunavut communities.

Helicopters using fuel slings affect fuel movement once delivered by fixed wing aircraft. All fuel on site remains in standard fuel drums, and is stored in designated areas appropriate for the refuelling of aircraft, generating plant, snow machines and drills.

It is anticipated that the total petroleum product requirements for a season will not exceed 10 gasoline, 30 diesel and 400 Jet-B.

Where applicable, petroleum storage areas at the camp and drill sites are visually inspected on a daily basis to check for leakage or damage to any of the containers. Spill kits are available on site.

All fuel is stored a minimum of 30 metres from any high water mark, and transfer of fuel from supply vehicles to tanks and from tanks to vehicular equipment is performed with the aid of fuel pumps. Material Safety Data Sheets (MSDS) for all fuels and chemicals are kept on site for reference, should they be required.

If any fuel products are required in other areas within the permit area appropriate amendments to the Land Use License will be applied for and fuel products will be stored and handled at the specific site in accordance with applicable Land Use Permit conditions.

### **1.5 Chemical Use and Storage**

Only a few litres of cleaning and maintenance compounds (including household type cleaners, degreasers, lubricating oils, etc.), often referred to as household hazardous materials, will also be used on site. However, the potential for spills of these materials to the environment is considered insignificant.

## **2.0 SPILL RISK ASSESSMENT**

### **2.1 Petroleum Products**

Potential sources of petroleum product spills could involve the following:

1. Leaking or ruptured fuel drums.
2. Fuel transfer operations between storage drums, and mobile equipment including aircraft. This could include broken supply pipes, hoses, and associated valves during fuel transfer operations.
3. Aircraft, snow-vehicles or equipment involved in accidents.
4. Leaks and drips from machinery, pumps, motors, and other equipment

The potential for spills to occur directly on a watercourse is low at project sites because fuel storage and transfer points are located away from watercourses. However, if a spill occurred during the winter on lake ice, it will be contained and cleaned up without contaminating the under – ice lake

waters.

## 2.2 Chemicals

Any chemicals brought to the project site in drums or bags will be stored indoors. Spillage may occur from accidental breakage of containers or during handling operations.

Practising safe handling and storage procedures, ensuring proper training in handling of the products, and conducting regular inspections of stored chemicals will minimise spills from chemicals.

## 3.0 RESPONSE ORGANIZATION

The members of the spill response team and their duties are listed below:

Response Team Member	Title/Company
On-Scene Co-ordinator	Biplob Chatterjee Kennecott Canada Exploration Inc.
On-Scene Co-ordinator (Alternate)	Jamie McLennan Health, Safety and Environmental Coordinator Kennecott Canada Exploration Inc.
Project Manager	Ian Graham Exploration Manager, Diamonds Kennecott Canada Exploration Inc.
Project Manager (Alternate)	Troy Gill Kennecott Canada Exploration Inc.
Environmental Advisor	Erik Madsen & Murray Swyripa Managers Environmental Affairs Diavik Diamond Mines Inc.
Project Personnel	There will be between 3 and 10 people on site(s) to aid in any spill response activities.

The responsibilities of the On-Scene Co-ordinator include the following:

- ✓ Assume complete authority over the spill scene and personnel involved.
- ✓ Activate the Contingency Plan.
- ✓ Evaluate the initial situation and assesses the magnitude of the spill.
- ✓ Report the spill to the Project Manager or an Environmental Advisor, who in turn will report it to NWT 24-hour Spill Report Line at (867) 920-8130 and DIAND Water Resources Inspector at (867) 975-4298.
- ✓ Develop an overall plan of action.
- ✓ Report to the Project Manager and provide recommendations on resource requirements (additional

manpower, equipment, material, etc.) to complete the cleanup effort. The responsibility of the co-ordinator is to mobilise personnel and equipment to implement the cleanup.

**The Responsibilities of the Project Manager include the following:**

- ✓ Provide liaison with Kennecott Exploration management to keep them informed of cleanup activities.
- ✓ Obtain additional required resources not available on-site for spill response and cleanup.
- ✓ Act as the spokesperson with government agencies as well as the public and the media as appropriate.
- ✓ Document the cause of the spill and effectiveness of the cleanup effort, and implement the appropriate measures to prevent a recurrence of the spill.
- ✓ Prepare and submit follow-up documentation required by appropriate regulators.
- ✓ Ensure that the spill is cleaned up and all follow-up communication and reports are filed with the DIAND Water Resources and Environment Canada offices in Iqaluit.

**The Environmental Advisors' duties include the following:**

- ✓ Provide technical advice on probable environmental impacts of the spill.
- ✓ Advise the On-Scene Co-ordinator on spill countermeasures and recommend the most appropriate options.
- ✓ Assist in developing any required sampling, testing, or monitoring program associated with the spill.
- ✓ As required, assist the Project Manager in dealing with appropriate government agencies as well as public and the media.
- ✓ Provide recommendations on spill prevention.

#### **4.0 INITIAL ACTIONS**

In the event of a spill, the first person on the scene is responsible for the following actions:

1. Maintain alertness and ensure personal safety and that of others who are on the scene prior to the arrival of the Spill Response On-Scene Co-ordinator.
2. Assess the hazard to persons in the vicinity of the spill.
3. If possible, without further assistance, control any danger to human health.
4. Assess whether the spill can be readily stopped or brought under control.
5. Where safe to do so, stop the flow of the spilled product.

- o. Report the spill without delay to the Spill Response On-Scene Co-ordinator.
7. Resume any action to contain, clean up, or stop the flow of spilled product until the On-Scene Co-ordinator takes control of the scene.

## 5.0 REPORTING PROCEDURE

The On-Scene Co-ordinator must be notified immediately of any spill. The following chain of command must be followed in the reporting process. Immediately contact:

Reporting Hierarchy	Title/Company/Phone/Fax
On-Scene Co-ordinator	Biplob Chatterjee or Jamie McLennan Project Geologist/HSE Coordinator Kennecott Canada Exploration Inc. Phone: 604.696.3418 or 604.696.3412 Fax: 604.669.5255
DIAND Water Resources Inspector	867.975.4298
Government 24 Hour Spill Reporting Line (To be contacted by the Environmental Advisor, On-Scene Co-ordinator, Project Manager or his designee)	Phone: 867.920.8130 Fax: 867.873.6924

NOTE: A "Spill Report" form should be filled out, including the GPS location of each occurrence, no later than 30 days after initially reporting the event. The report should be filed with DIAND Water Resources Inspector in Iqaluit.

## 6.0 ACTION PLAN

The following actions have been incorporated to minimise the potential for spills to occur during fuel handling, transfer, or storage operations:

- Immediately cleanup minor spills.
- Conduct regular inspections of fuel barrel storage areas and hoses for evidence of leaks.
- Use drip pans and/or oleophilic environmental blanket at all petroleum transfer sites and under stationary machinery.
- Train personnel in proper fuel handling and spill response procedures.

## 6.1 Spills on Land

Response to spills on land will include the Initial Actions listed in Section 4.0 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™ 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 for disposal. Kennecott will contact the appropriate DIAND 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.

## 6.2 Spills on Water

The likelihood of a spill on or over water is remote however in the event it does occur the following steps will be implemented to control spills of petroleum products on water:

- 1) Floating 'boom(s)' can be deployed to contain the floating product.
- 2) Absorbent pads and similar materials can be used to capture small spills on water. Absorbent booms can be drawn in slowly to encircle spilled fuel and then absorb it. These materials are hydrophobic, and therefore, absorb hydrocarbons but repel water. Absorbent booms are often relied on to recover any hydrocarbons that escape containment booms.



- 3) A skimmer may be deployed once a boom has been secured to capture the spilled product, and then pump it through hoses to empty fuel drums.
- 4) In the event of a larger spill on water, it will be necessary to limit the extent of the spill by using booms and it may be necessary to seek the assistance of the Mobil Environmental Response Unit. The 24-Hour Spill Report Line should be used to keep government agencies informed of the situation.

### 6.3 Spills on Snow and Ice

Where a spill occurs on ice, snow should be compacted around the edge of the spill and lined with plastic sheeting to serve as a berm. The ice will prevent seepage of fuel into the water, but contaminated snow and ice must be scraped up immediately. The contaminated snow can then be placed in drums or on plastic and within plastic lined berms on land. Permission may be granted from appropriate Government departments to burn off pools of fuel (contact the 24 hour Spill Reporting Line). Should fuel get below the ice, assistance may be requested from the Canadian Northern Oil Distributors Ltd. Mobil Environmental Response Unit.

Kennecott Canada Exploration Inc. and Diavik Diamond Mines Inc. have agreements in principal with Canadian Northern Oil Distributors, to access their resources 24 - hours per day, should these services be required.

## 7.0 SEWAGE DISCHARGE

Type of Treatment: At a Kennecott exploration camp, domestic sewage is not treated except by direct application of lime solution to permafrost contained sewage pits. Digester systems are generally employed at camps with long-term or high occupancy.

Should other smaller exploration camps be required within the permit area, appropriate amendments to current Land Use Permits would be applied for and all applicable clauses dealing with sewage disposal in the Land Use Permit would be adhered to.

## 8.0 RESOURCE INVENTORY

### A. Personnel

In addition to the Spill Response Co-ordinator, at least two persons are available on site to assist in spill response and clean up activities. During helicopter refuelling operations, at least three people are at site. At least two people are stationed at drill sites during drilling operations.

### B. General Equipment

Rotary and fixed wing aircraft can be flown to the sites from Baker Lake or Rankin Inlet. Heavy earth moving equipment, hand tools, and miscellaneous equipment, such as plastic sheeting, are available from competitors' exploration sites and from Baker Lake or Rankin Inlet, and are available for use in the event of a spill.

### C. Spill Kits

One kit is located in camp, and one at each drill site during drilling operations. All kits are inspected on a monthly basis to ensure they are fully equipped and usable. Each Kit contains:

- 1-45 gal, 16 gauge Open Top Drum, c/w Bolting Ring & Gasket,
- 1-48"X 48"x 1/16" Neoprene Pad (drain stop),
- Plug N/Dike™ Granular, 1-gal U.S. (3.8 litres)
- Splash Protective Goggles
- 2-PVC Oil Resistant Gloves
- 1-pkg Polyethylene Disposable Bags (5 mil) 10 per Pack
- 1-Shovel (Spark Proof)
- 1-case T-12 3"x 12' Mini Boom, 4 booms / case
- 1-bale HP-256 17"x 19"x 1/2" Pads, 100 Pads/bail
- 1 bale of Sphag Sorb™

### D. Mobil Environmental Response Unit

Canadian Northern Oil Distributors, Ltd. in Yellowknife will make the Mobil Environmental Response Unit available to Diavik upon immediate notice. This unit could be transported to the site from Yellowknife, though mobilisation is potentially dependent on weather.

### E. Environmental Advisors

Advisors from the Diavik Diamond Mines Inc. Environmental Division are available to site personnel to address environmental issues related to a spill.

As well, additional Information or assistance is available from the following sources:

Organisation/Location	Name/Phone/Fax
Canadian Northern Oil Distributors Ltd. Mobil equipment Response Unit Yellowknife	Matthew Wasserman 867.873.3337 [Not available after hours]
Government of the NWT Environmental Protection Division Yellowknife	867.873.7654 Fax: 867.873.0221
Dept. of Indian Affairs & Northern Development Yellowknife	Phone: 867.669.2760 Fax: 867.669.2720
Environment Canada Yellowknife	Phone: 867.920.6060 Fax: 867.873.8185
G & G Expediting Yellowknife	Glen McCara / Greg Works 867.669.9705
RCMP Yellowknife	867.920.8311
BHP Ekati Diamond Mine	Phone: 867.669.0213 Fax: 867.669.0714

## **9.0 TRAINING**

All contractors and employees will be familiarised with this plan upon arrival at Kennecott's field camp; details of the Contingency Plan are posted at the drill and in camp. The nominated on-site co-ordinators are responsible for the updating of the contents of the Contingency Plan, including specified reporting requirements.

MYANMAR PLANNING COMMISSION  
MYANMAR

RECEIVED

JUN 3 0 2005

**D.L.A.N.D.**  
Igaltit, NU

**Re: Application #N2005C0025**

Attached, for your files, is a copy of the list of conformity requirements to which the application has undertaken to comply to.

*Luke Suluk*  
 Luke Suluk  
 Implementation Coordinator, NPC

(attachment)

**KENNECOTT CANADA EXPLORATION INC.**

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FROM: PATRICK SMILLIE  
(KCE)

DATE / TIME: JUNE 28<sup>TH</sup> 1:30 PM

TO: NAVUT PLANNING COMMISSION  
CC:

LOCATION / DIVISION: \_\_\_\_\_

FAX #: (867) 857-2243# OF PAGES: 5 (INCLUDING COVER SHEET)

SUBJECT: \_\_\_\_\_

**MESSAGE**

Application : #N2005C0025

## NUNAVUT PLANNING COMMISSION APPLICATION TO DETERMINE CONFORMITY WITH THE KEEWATIN REGIONAL LAND USE PLAN

The Nunavut Land Claims Agreement and the Keewatin Regional Land Use Plan require the Nunavut Planning Commission (NPC) to determine whether the proposed land and/or water uses are in conformity with the plan. The conformity requirements are outlined in Chapter 8 of the Plan, Appendix 2 *Code of Good Conduct for Land Users* and Appendix 3 *Caribou Protection Measures* form part of Chapter 8.

The Keewatin Regional Land Use Plan is available on the NPC Web site at: <http://npc.nunavut.ca>. Copies of the document can be obtained directly from the offices of the Commission in Arviat office phone # (867) 857 2242; and in Cambridge Bay office phone # (867) 983 2730.

PLEASE TYPE OR PRINT IN INK AND SEND TO THE NUNAVUT PLANNING COMMISSION AT THE FOLLOWING ADDRESS.

NUNAVUT PLANNING COMMISSION  
BOX 418 ARVIAT, NUNAVUT  
X0C 0G0

IF YOU WOULD LIKE MORE INFORMATION OR ASSISTANCE IN COMPLETING THIS APPLICATION FORM PLEASE CONTACT NPC. Tel: (867) 857-2242; Fax: (867) 857-2243; E-mail: [npc@nunavut.ca](mailto:npc@nunavut.ca)

APPLICANT'S NAME: PATRICK SMILLIE  
 REPRESENTING: KENNECOTT CANADA EXPLORATION INC.  
 ADDRESS: 354-200 GRANVILLE STREET  
VANCOUVER, BC  
V6C 1S4  
 Tel.: (604) 696-3422 Fax: (604) 696-3401 E-mail: patrick.smillie@riofin.com

**All applicants for a project proposal shall comply with the requirements listed below.  
The relevant sections of the plan are noted in each requirement.**

### GENERAL

1. Location: Is the project proposal located within the Keewatin planning region but outside of an established park?

YES

NO

- i. If yes, provide the location co-ordinates in degrees/minutes.  
 Latitude: 63°15' To 64°10' N

Application: #N2005C0025

Longitude: 96°0' to 97°0' W

- ii. Include with the application a map at scale 1:50,000 showing the location of the site.
- iii. Briefly describe, in non-technical terms, the project proposal.

KENNECOTT PLANS TO CONDUCT DIAMOND EXPLORATION  
ON THE PROPERTY. PLANNED ACTIONS INCLUDE TILL AND  
STREAM SAMPLING, GROUND GEOPHYSICAL SURVEYS AND  
PARTIAL DRILLING. SAMPLES WILL BE COLLECTED  
MANUALLY FROM PITS APPROXIMATELY 50 CM DEEP  
THAT WILL BE BACK-FILLED.

2. Environmental Protection: s2.4.9: The applicant undertakes to prevent any new occurrences of pollution, garbage and contamination at the site of the development.

☒ YES☐ NO

3. Removal of Fuel Drums: s2.4.9: The applicant undertakes to remove all drums safely from the site and dispose of the drums in a safe manner.

☒ YES☐ NO

4. New Site Restoration and Clean Up: s2.4.15 and Appendix 2, s1: The applicant undertakes to clean up the site and restore the site to its natural condition to the greatest extent possible.

☒ YES☐ NO

4. Old Site Restoration and Clean Up: s2.4.10: The applicant undertakes to clean up the site and restore the site to its original condition to the greatest extent possible, including any work required due to the applicant's action prior to this application.

☒ YES☐ NO

6. Low Level Air Flights: s5.4.4 and Appendix 2, s3: Will the applicant avoid low-level flights?

☒ YES☐ NO

Application: #N2005C0025

If not, explain why such flights are or may be absolutely necessary.

- i. If such flights are or may be absolutely necessary, will they avoid disturbance to people and wildlife?
- ii. If not, explain why it is not possible to avoid such disturbance.

## ARCHAEOLOGY

9. Reporting of Archaeological Sites: s4.4.3 and Appendix 3, s2 and s3: Will the applicant immediately report the discovery of all suspected archaeological sites to the Department of Culture, Language, Elders and Youth (GN)?

YES

NO



Application : #N2006CD025

**10. Local Services and Local Employment: s6.4.3: Will the applicant rely on local services and employment where possible?****YES****NO**

i. Describe the services retained and people to be employed.

PETER'S EXPEDITING IN BAKER LAKE PROVIDES EVERY  
EQUIPMENT AND LOCAL FIELD ASSISTANCE FOR  
KENNECOTT'S FIELD PROGRAMS

ii. If no, explain why it is not possible.

**Code of Good Conduct for Land Users: Appendix 2: The applicant undertakes to adhere to the Code of Good Conduct at all times.**

I, PATRICK SMITHIE (name of applicant), certify that the information I have given in this application is true and correct and hereby make the above undertakings which form part of my application for a project proposal within the meaning of the Nunavut Land Claims Agreement.

Date: JUNE 14, 2005Signature of Applicant: 

