



**TRIEX MINERALS CORPORATION**

**SPILL CONTINGENCY PLAN  
EXPLORATION PROPERTIES**

**NUNAVUT**

April 2005



## **TABLE OF CONTENTS**

### **1.0 INTRODUCTION**

- 1.1 PURPOSE OF PLAN
- 1.2 TRIEX MINERALS CORPORATION ENVIRONMENTAL POLICY

### **2.0 SITE DESCRIPTION**

- 2.1 GENERAL SITE DESCRIPTION
- 2.2 PETROLEUM STORAGE AND TRANSPORT
- 2.3 CHEMICAL STORAGE AND TRANSPORT
- 2.4 GREYWATER AND SEWAGE

### **3.0 RESPONSE ORGANIZATION**

- 3.1 SPILL RESPONSE TEAM
- 3.2 3.2 ADDITIONAL CONTACTS

### **4.0 REPORTING PROCEDURE**

### **5.0 ACTION PLANS**

- 5.1 INITIAL ACTION

#### ***SPILL RESPONSE ACTIONS***

- 5.2 DIESEL FUEL, HYDRAULIC OIL, AND LUBRICATING OIL
- 5.3 GASOLINE AND JET B AVIATION FUEL
- 5.4 ANTIFREEZE
- 5.5 PROPANE

### **6.0 RESOURCE INVENTORY**

- 6.1 PERSONNEL
- 6.2 GENERAL EQUIPMENT

### **7.0 TRAINING**

## **APPENDIX**

### **NWT/NUNAVUT SPILL REPORT FORM**



## **1.0 INTRODUCTION**

### **1.1 PURPOSE OF PLAN**

The purpose of this Spill Contingency Plan is to provide a plan of action for all spills of hazardous materials that may occur on any exploration property. This plan defines the responsibilities of key personnel and outlines procedures to effectively and efficiently contain and recover spills of hazardous materials.

Petroleum products and hazardous materials that will be considered in this Spill Contingency Plan include:

- diesel fuel
- hydraulic oil
- lubricating oil
- gasoline
- Jet "B" fuel
- antifreeze
- propane

### **1.2 TRIEX MINERALS CORPORATION ENVIRONMENTAL POLICY**

It is the policy of Triex Minerals Corporation to comply with all existing laws and regulations to help ensure the protection of the environment. Triex Minerals Corporation cooperates with other groups committed to protecting the environment and ensures that employees, government, and the public is informed on the procedures followed to help protect the environment.

## **2.0 SITE DESCRIPTION**

### **2.1 GENERAL SITE DESCRIPTION:**

This spill contingency plan is to be implemented at all field camps established for mineral exploration.

### **2.2 PETROLEUM STORAGE AND TRANSPORT**

All fuel will be stored no closer than the regulated distance from the normal high water mark of any water body.

All fuel and oil are transported to the various exploration properties by plane.

### **2.3 CHEMICAL STORAGE AND TRANSPORT**

Any required chemicals are transported to site by plane.



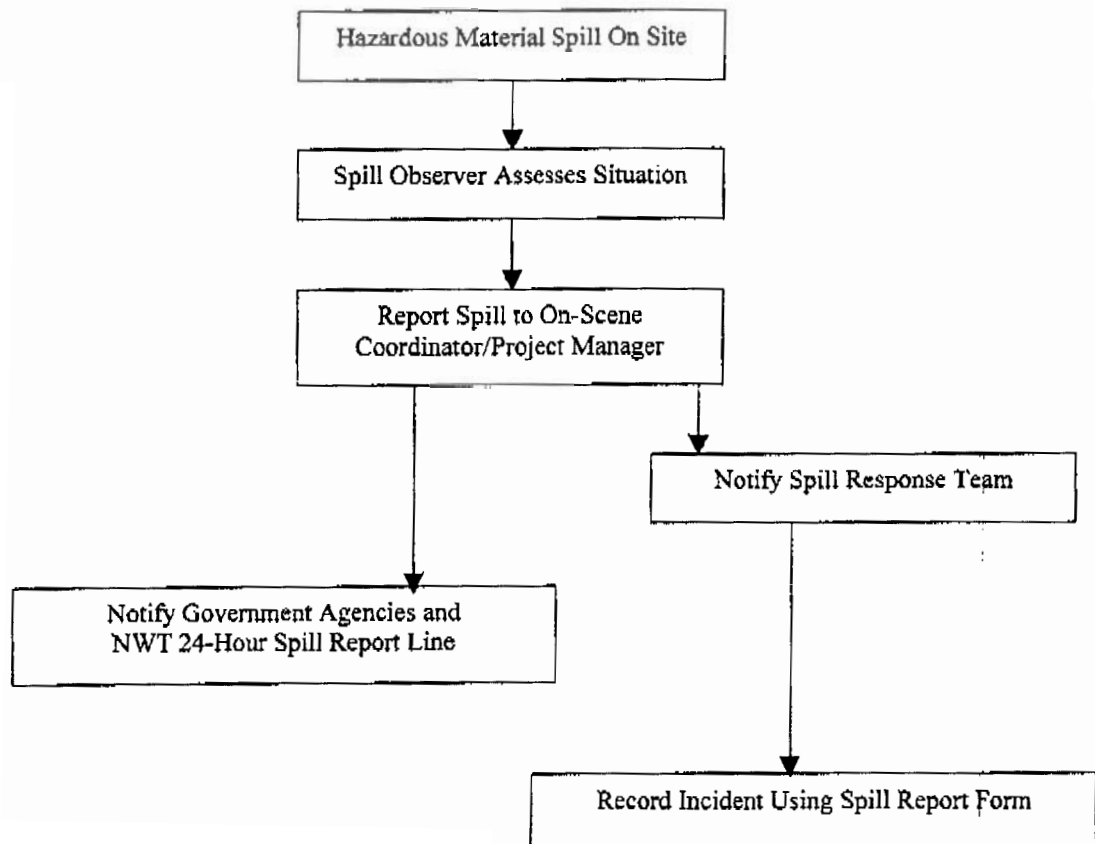
#### **2.4 GREYWATER AND SEWAGE**

Greywater will be discharged into sumps or natural depressions located at the required distance from water bodies.



### **3.0 RESPONSE ORGANIZATION**

The following is a flow chart to illustrate the sequence of events in the event of a hazardous material spill occurring at any of the Triex exploration properties.





### 3.1 SPILL RESPONSE TEAM

Ross McElroy will be the On-Scene Coordinator for the Triex exploration properties. Ross McElroy will appoint and train appropriate personnel to make up the Triex Spill Response Team for the various Triex exploration properties. The key personnel that make up the Triex Spill Response Team are as follows:

On-Scene Coordinator      Ross McElroy

Site Personnel              Will generally vary from 3 to 23 people throughout the year

Project Manager            Ross McElroy

The responsibilities of the On-Site Coordinator are as follows:

1. Assume complete authority over the spill scene and coordinate all personnel involved.
2. Evaluate spill situation and develop overall plan of action.
3. Activate the spill contingency plan
4. Immediately report the spill to:  
**NWT 24-Hour Spill Report Line (867) 920-8130**  
**Environment Canada (24 hr pager) (867) 820-5131**  
**Environment Canada (Iqaluit) (867) 975-4644**  
**DIAND Water Resources Inspector (867) 975-4298**  
**Fisheries and Oceans**  
**Nunavut Department of Environment**  
 other regulatory agencies, and Triex management (**see Table 1 – Emergency Contacts**).
5. Obtain additional manpower, equipment, and material if not available on site for spill response.

The responsibilities of the Project Manager are as follows:

1. Provide regulatory agencies and Triex management with information regarding the status of the clean up activities.
2. Act as a spokesperson on behalf of Triex with regulatory agencies as well as the public and media.
3. Prepare and submit a report on the spill incident to regulatory agencies within 30 days of the event.



### 3.2 ADDITIONAL CONTACTS

**Table 1 – Emergency Contacts**

<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>
DIAND – Land Use Inspector, Kugluktuk	(867) 982-4306
Triex – Randy C. Turner, President	(604) 988-1159 (home)
Triex – Michael Gunning, VP, Exploration	(604) 687-6644 (work)
Environment Canada	(867) 669-4700, Fax (867) 873-8185
Air Tindi	(867) 669-8212
Great Slave Helicopters	(867) 873-2081
Yellowknife Fire Department	(867) 873-2222
Kugluktuk RCMP	(867) 982-4111
Stanton Regional Hospital – Yellowknife	(867) 920-4111
Senior Geologist – Ross McElroy	(604) 687-6644
Discovery Mining Services	(867) 920-4600
Triex Office, Vancouver	(604) 687-6644

### 4.0 REPORTING PROCEDURE

The On Scene Coordinator must be notified immediately of any spill either by phone, radio, or in person.

The following is the spill reporting procedure:

1. Report immediately to the 24-Hour Spill Report Line Phone (867) 920-8130, Fax (867) 873-6924  
 NWT 24-Hour Spill Report Line (867) 920-8130  
 Environment Canada (24 hr pager) (867) 820-5131  
 Environment Canada (Iqaluit) (867) 975-4644  
 DIAND Water Resources Inspector (867) 975-4298  
 Fisheries and Oceans  
 Nunavut Department of Environment  
 and other regulatory agencies, and Triex management (see Table 1 – Emergency Contacts).
2. Fill out the NWT Spill Report Form NWT1752/0202.



## **5.0 ACTION PLANS**

### **5.1 INITIAL ACTION**

The instructions to be followed by the first person on the spill scene are as follows:

1. Always be alert and consider your safety first.
2. If possible, identify the material that has been spilled. If you are not sure of the material, use caution and consider your safety first.
3. Assess the hazard of people in the vicinity of the spill.
4. If possible, safely try to stop the flow of material to minimize potential for environmental impacts.
5. Immediately report the spill to the On Scene Coordinator.
6. Resume any effective action to contain, mitigate, or terminate the flow of the spilled material.

**The following pages include specific instructions to be followed in the response to various types of spills including diesel fuel, hydraulic oil, lubricating oil, gasoline, aviation fuel (Jet "B"), antifreeze, and propane.**





## 5.2 SPILL-RESPONSE ACTIONS DIESEL FUEL, HYDRAULIC OIL, AND LUBRICATING OIL

Take action only if safety permits – stop the source flow if safe to do so and eliminate all ignition sources. Never smoke when dealing with these types of spills.

### On Land

Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm for easy capture of the spill after all vapours have dissipated.

Remove the spill by using absorbent pads or excavating the soil, gravel or snow.

Remove spill splashed on vegetation using particulate absorbent material.

If soil, gravel, or vegetation must be removed, contact regulatory agencies for approval before commencing with the removal.

### On Muskeg

Do not deploy personnel and equipment on marsh or vegetation.

Remove pooled oil with sorbent pads and/or skimmer.

Flush with low pressure water to herd oil to collection point.

Burn only in localized areas, e.g., trenches, piles or windrows.

Do not burn if root systems can be damaged (low water table).

Minimize damage caused by equipment and excavation.

### On Water

Contain spill as close to release point as possible.

Use containment boom to capture spill for recovery after vapours have dissipated.

Use absorbent pads to capture small spills.

Use skimmer for larger spills.

### On Rivers and Streams

Prevent entry into water, if possible, by building a berm or trench.

Intercept moving slicks in quiet areas using (sorbent) booms.

Do not use sorbent booms/pads in fast currents and turbulent water.

### On Ice and Snow

Build a containment berm around spill using snow.

Remove spill using absorbent pads or particulate sorbent material.

The contaminated ice and snow must be scraped and shoveled into plastic buckets with lids, 205 litre drums, and/or polypropylene bags.

### Storage and Transfer

All contaminated water, ice, snow, soil, and clean up supplies will be stored in closed, labeled containers. All containers will be stored in a well ventilated area away from incompatible materials.

### Disposal

Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.



### 6.3 SPILL RESPONSE ACTIONS GASOLINE AND JET B AVIATION FUEL

Gasoline and Jet B form vapours that can ignite and explode – No Smoking!

Take action only if safety permits – stop the source flow if safe to do so and eliminate all ignition sources. Never smoke when dealing with these types of spills.

#### On Land

Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm for easy capture of the spill after all vapours have dissipated.

Remove the spill by using absorbent pads or excavating the soil, gravel or snow.

Remove spill splashed on vegetation using particulate absorbent material.

If soil, gravel, or vegetation must be removed, contact regulatory agencies for approval before commencing with the removal.

#### On Muskeg

Do not deploy personnel and equipment on marsh or vegetation.

Remove pooled gasoline or Jet B with sorbent pads and/or skimmer.

Flush with low pressure water to herd oil to collection point.

Burn only in localized areas, e.g., trenches, piles or windrows.

Do not burn if root systems can be damaged (low water table).

Minimize damage caused by equipment and excavation.

#### On Water

Contain spill as close to release point as possible.

Use containment boom to capture spill for recovery after vapours have dissipated.

Use absorbent pads to capture small spills.

Use skimmer for larger spills.

#### On Rivers and Streams

Prevent entry into water, if possible, by building a berm or trench.

Intercept moving slicks in quiet areas using (sorbent) booms.

Do not use sorbent booms/pads in fast currents and turbulent water.

#### On Ice and Snow

Build a containment berm around spill using snow.

Remove spill using absorbent pads or particulate sorbent material.

The contaminated ice and snow must be scraped and shoveled into plastic buckets with lids, 205 litre drums, and/or polypropylene bags.

#### Storage and Transfer

All contaminated water, ice, snow, soil, and clean up supplies will be stored in closed, labeled containers. All containers will be stored in a well ventilated area away from incompatible materials.

#### Disposal

Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.



#### 5.4 SPILL RESPONSE ACTIONS ANTIFREEZE

Take action only if safety permits – stop the source flow if safe to do so.

##### **On Land**

Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm for easy capture of the spill.

Remove the spill by using absorbent pads or excavating the soil, gravel, or snow.

Remove spill splashed on vegetation using particulate absorbent material.

If soil, gravel, or vegetation must be removed, contact regulatory agencies for approval before commencing with the removal.

##### **On Water**

Use containment boom to capture spill.

Pump contaminated water into 206 litre drum.

##### **On Ice and Snow**

Build a containment berm around spill using snow.

Remove spill using particulate sorbent material.

The contaminated sorbent material, ice and snow must be scraped and shoveled into plastic buckets with lids, 206 litre drums, and/or polypropylene bags.

##### **Storage and Transfer**

All contaminated water, ice, snow, soil, and clean up supplies will be stored in closed, labeled containers. All containers will be stored in a well ventilated area away from incompatible materials.

##### **Disposal**

Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.



## 5.5 SPILL RESPONSE ACTIONS PROPANE

Take action only if safety permits. Gases stored in cylinders can explode when ignited.  
Keep vehicles away from accident area – No Smoking!

### **On Land**

Do not attempt to contain the propane release.

### **On Water**

Do not attempt to contain the propane release.

### **On Ice and Snow**

Do not attempt to contain the propane release.

### **General**

It is not possible to contain vapours when released.

Water spray can be used to knock down vapours if there is NO chance of ignition.

Small fires can be extinguished with dry chemical or CO<sub>2</sub>.

Personnel should withdraw immediately from area unless a small leak is stopped immediately after it has been detected.

If tanks are damaged, gas should be allowed to disperse and no recovery attempt should be made.

Personnel should avoid touching release point on containers since frost forms very rapidly.

Keep away from tank ends.

### **Storage and Transfer**

It is not possible to contain vapours when released.

### **Disposal**

Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods for defective equipment that resulted in the release.



## **6.0 RESOURCE INVENTORY**

### **6.1 PERSONNEL**

In addition to the On Scene Coordinator and the Project Manager (Geologist), approximately 3 to 18 people are available on site to assist in spill response and clean up activities. The amount of people on site varies from site to site and throughout the year.

### **6.2 GENERAL EQUIPMENT**

Equipment available on site to assist in responding to a hazardous materials spill includes various hand held tools including shovels. In addition to these, one spill kit will be at the main camp site during active exploration periods with additional spill kits located at fuel caches, drills and on the helicopter. The spill kit contains the following supplies:

- 1 – 360 litre/79 gallon polyethylene overpack drum
- 4 – oil sorbent booms (5" X 10')
- 100 – oil sorbent sheets (16.5" X 20" X 3/8")
- 1 – drain cover (36" X 36" X 1/16")
- 1 – Caution tape (3" X 500')
- 1 – 1 lb plugging compound
- 2 – pair Nitrile gloves
- 2 – pair Safety goggles
- 2 – pair Tyvek coveralls
- 1 – instruction booklet
- 10 – printed disposable bags (24" X 48")
- 1 – empty fuel drum


Sorbent capacity of this spill kit is 240 litres.

## **7.0 TRAINING**

All employees working on a Triex Minerals Corporation exploration property will be trained in the safe operation of all machinery and tools to help prevent hazardous material spills. All employees on site will also be trained for initial spill response in the event of a spill. Annual refresher exercises will be conducted to review the procedures of this Spill Contingency Plan.

A copy of this plan will be on site at camps and at the drills.

## Appendix 1 – NWT/Nunavut Spill Report Form

 <b>NWT SPILL REPORT</b> (Oil, Gas, Hazardous Chemicals or other Materials)		24-Hour Report Line Phone: (867) 920-8130 Fax: (867) 873-6924	
<b>A</b> Report Date and time		<b>B</b> Date and time of Spill (if known)	
		<b>C</b> <input type="checkbox"/> Original Report <input type="checkbox"/> Update No	
<b>D</b> Location and map coordinates (if known) and direction (if moving)			
<b>E</b> Party Responsible for Spill			
<b>F</b> Product(s) spilled and estimated quantities (Provide metric volume/weights, if possible)			
<b>G</b> Cause of Spill			
<b>H</b> Is spill terminated? <input type="checkbox"/> yes <input type="checkbox"/> no		<b>I</b> If spill is continuing, give estimated rate	
		<b>J</b> Is further spillage possible? <input type="checkbox"/> yes <input type="checkbox"/> no	
		<b>K</b> Extent of contaminated area (in sq. m if possible)	
<b>L</b> Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.)		<b>M</b> Containment (natural depression, dyke, etc.)	
<b>N</b> Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials			
<b>O</b> Do you require assistance? <input type="checkbox"/> no <input type="checkbox"/> yes, describe*		<b>P</b> Possible hazards to persons, property, or environment, eg. fire, drinking water, fish or wildlife*	
<b>Q</b> Comments and/or recommendations*		<b>FOR SPILL LINE USE ONLY:</b>	
		Lead Agency	
		Spill significance	
		Lead Agency contact and time	
		Is this file now closed? <input type="checkbox"/> yes <input type="checkbox"/> no	
Reported by		Position, Employer, Location	
Telephone No			
Reported to:		Position, Employer, Location	
Telephone No:			

\*Put additional comments on next page (Please type in the Box later you are referring to in your comments)