

**GREYHOUND AND WHITE HILLS** 

**EXPLORATION PROJECTS** 

**SPILL CONTINGENCY PLAN** 

February 2019

# **EXECUTIVE SUMMARY**

This document presents the Spill Contingency Plan developed for the exploration projects in accordance with various authorizations and regulations. The Spill Contingency Plan (SCP) designates lines of authority and responsibility, establishes proper reporting, and details action plans in the event of a spill. This plan is applicable to all Agnico Eagle employees and any contractors associated with the Agnico Eagle exploration projects.

If a major spill were to occur at these exploration projects, the Exploration Division can access resources from the Meadowbank Mine. For this reason, the document includes some of the Meadowbank mine protocols and procedures,

Spill Contingency Pl	aı	r
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# **IMPLEMENTATION SCHEDULE**

The Plan is effective immediately and subject to any modification proposed by the NWB as a result of the review and approval process.

# **DISTRIBUTION LIST**

Agnico Eagle – Geology Supervisors

Agnico Eagle – Environmental Coordinator

# **DOCUMENT CONTROL**

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## SECTION 1 • INTRODUCTION

## 1.1 PURPOSE & SCOPE OF THE SPILL CONTINGENCY PLAN

The overall purpose in creating a spill contingency plan is to minimize the impacts of spills by establishing predetermined lines of response and action plans. This plan has been designed to facilitate effective communication and efficient clean-up of spills from potentially hazardous materials. These hazardous materials include:

- Hydrocarbon liquids such as diesel fuel, gasoline, hydraulic oil; and
- Soluble liquids, such as glycols, and paints.

More specifically, the objectives of this Spill Contingency Plan are to:

- Identify roles, responsibility, and reporting procedures;
- Provide readily accessible emergency information to the cleanup crews, management, and government agencies;
- Comply with federal and territorial regulations and guidelines pertaining to the preparation of contingency plans and notification requirements;
- Promote the safe and effective recovery of spilled materials; and
- Minimize the environmental impacts of spills to water or land.

This plan was prepared based on the following reference documents:

- Indian and Northern Affairs Canada (INAC) 2007. Guidelines for Spill Contingency Planning.
- Government of Nunavut (GN), Contingency Planning and Spill Reporting in Nunavut. Guide to the New Regulations.
- Government of Nunavut 2002, Guideline General Management of Hazardous Wastes in Nunavut.
- Northwest Territories. Resources, Wildlife and Economic Development. Environmental Protection Service. 1988. Spill Contingency Planning and Reporting Regulations.

## **SECTION 2. • PROJECT DESCRIPTION**

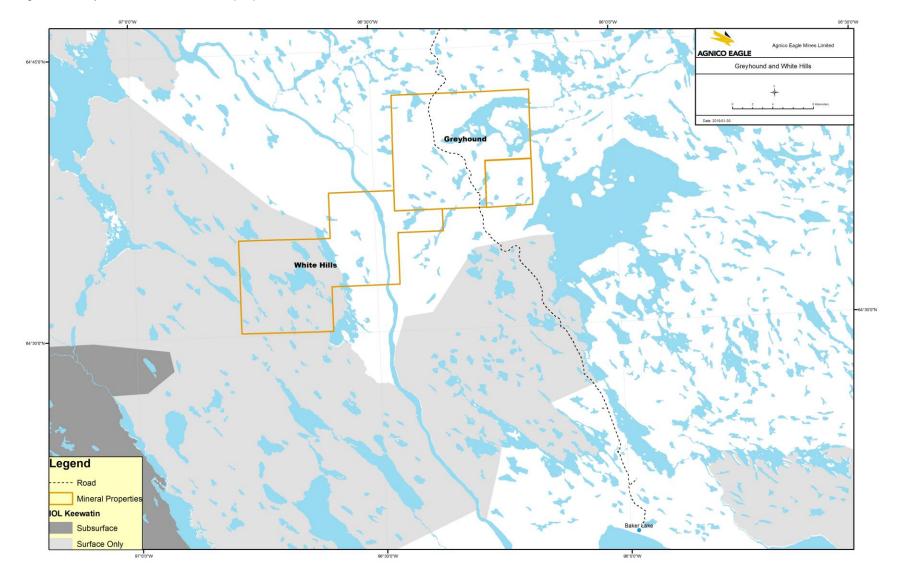
The Greyhound and the White Hills Explorations Projects, operated by Agnico Eagle Mines Limited, are located approximately 34 km and 50 km mostly northwest of the Baker Lake community and the area is transected by the Baker Lake – Meadowbank Mine All Weather Access Road. No exploration camp is planned to be established on this mineral property and workers are planned to be accommodated at the Meadowbank Gold Mine.

The fuel stock at the exploration sites will mostly consist of  $6 \times 600$ -litre double wall tanks for drill use and  $10 \times 205$ -litre drums for the helicopter. The jet fuel will be installed in a berm to ensure it is contained in case of a spill.

Emergency spill response equipment (i.e. spill kits) is located at all fuel storage locations and drills. Spill kits contain the appropriate type and quantity of equipment for the volume and type of product present at the storage location.

Figure 1 illustrates the location of the projects covered by this spill contingency plan.

Figure 1, Greyhound and White Hills properties location



#### 2.1 PREVENTION AND INSPECTIONS

The primary step in spill response is to prevent the spill from occurring. Transport, transfer and storage of materials are performed by trained personnel using secondary containment, with well-maintained equipment and containers. Good housekeeping is practiced in storage facilities, loading and unloading zones. All employees and contractors have an extensive orientation upon arriving on site, including spill prevention and spill response. Regular worksite inspections are conducted to identify measures to minimize the risk of spills. All personnel are trained to be aware of the potential hazards associated with the fuel/chemicals with which they are assigned to work.

Agnico Eagle is guided by the following general spill prevention principles:

- Provide up-to-date and accessible Material Safety Data Sheets (MSDS) for all hazardous materials;
- Carry out regular inspections of fuel/chemical storage areas for spills and leaks;
- Carry out regular inspections of hazardous materials storage areas;
- Train workers in safe work procedures for handling hazardous materials, and procedures to clean up spills of the same;
- Encourage workers to take reasonable measures to prevent spills;
- Keep drums/containers sealed or closed;
- Place drums/containers within a suitable secondary containment;
- Keep empty drums nearby for the transfer of product from leaking drums;
- Keep storage areas secure from unauthorized access;
- Keep incompatible materials segregated;
- Ensure chemical storage areas are adequately protected from weather and/or physical damage;
- Provide adequate spill response materials at storage areas; and
- Have a spill kit including shovel, barrels, absorbents, etc., readily available at all locations where
  fuel is being stored, used or transferred in order to provide immediate response in the event of a
  spill.

## 2.2 REFUELLING AT DRILL

Refueling will not take place below the high water mark and will be carried out in a manner to prevent hydrocarbons from entering any water body. Additionally, spill response equipment and supplies will be readily available during refuelling.

## **SECTION 3. • DEFINITIONS**

## 3.1 WHAT IS A SPILL?

For the purposes of this plan, a major spill is defined as an accidental release of product into the environment that has the potential for adverse impact. The Emergency Response Team (ERT) is immediately notified when a major spill or emergency occurs.

A minor spill is defined as any spill that doesn't involve a toxic, reactive or explosive material that doesn't pose a significant risk to the environment, human health or property. Minor spills are generally contained within exploration's facilities. Minor spills are still to be reported to the Environment Department but they are not expected to involve emergency responders.

## 3.2 MATERIALS AND REPORTABLE SPILLS ON SITE

As a precaution, if there is any doubt as to whether the quantity spilled meets the minimum reportable thresholds listed in Table 1, the spill incident will be reported. Furthermore, Agnico Eagle will maintain a detailed log of all spills of hazardous materials, including non-reportable spills. As part of Agnico Eagle's overall environmental management system and in the spirit of a continuous improvement of environmental performance, procedures are implemented to ensure that all employees communicate non-reportable spill incidents.

To ensure compliance with Section 36(3) of the *Fisheries Act* and Section 35 of the *Migratory Bird Regulations*, all spills of fuel or hazardous materials, regardless of quantity, into a water body, shall be reported immediately to the NT-NU 24-HOUR SPILL REPORT LINE (at 867.920.8130).

Table 1, Spill Quantities that must be reported to the NT-NU 24-HOUR SPILL REPORT LINE

Transportation Class	Type of Substance	Compulsory Reporting Amount <sup>1</sup>			
1	Explosives	Any amount			
2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity exceeding 100 L			
2.2	Compressed gas (non-corrosive, non-	Any amount from containers with a			
2.3	Compressed gas	Any amount			
2.4	Compressed gas (corrosive)	Any amount			
3.1, 3.2, 3.3	Flammable liquid	100 L			
4.1	Flammable solid	25 kg			
4.2	Spontaneously combustible solid	25 kg			
4.3	Water reactant solids	25 kg			
5.1	Oxidizing substances	50 L or 50 kg			
5.2	Organic peroxides	1 L or 1 kg			
6.1	Poisonous substances	5 L or 5 kg			
7	Radioactive substances	Any amount			
8	Corrosive substances	5 L or 5 kg			
9.1 (in part)	Miscellaneous substances	50 L or 50 kg			
9.2	Environmentally hazardous	1 L or 1 kg			
9.3	Dangerous wastes	5L or 5 kg			
9.1 (in part)	PCB mixtures of 5 ppm or more	0.5 L or 0.5 kg			
None	Other contaminants	100 L or 100 kg			

L = litre; kg = kilogram; PCB = polychlorinated biphenyls; ppm = parts per million.

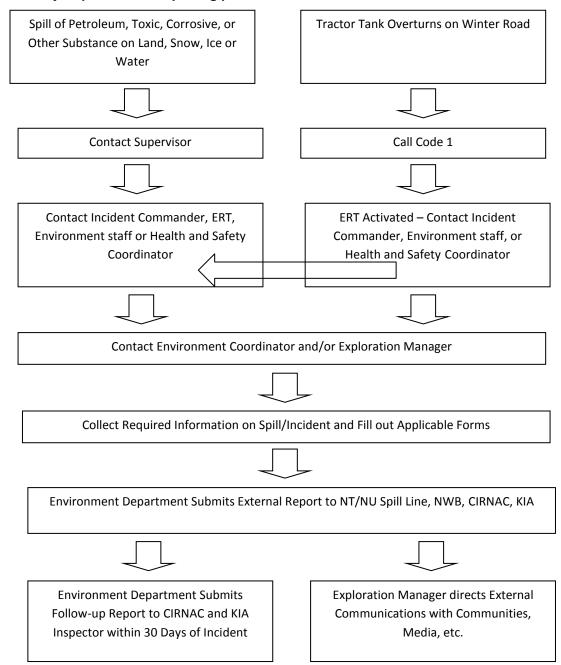
#### SECTION 4 • RESPONSE ORGANIZATION

This section addresses the response organization and the responsibilities of each individual during the response to an incident. Figure 2 illustrates Agnico Eagle's Spill Reporting Procedure in the event of a major spill, and sections 4.1- 4.9 list the major responsibilities of site staff that will be participating in the emergency response management.

The first person (first responder) to notice, or come in contact with, any spill situation either initiates a Code 1 (example: in the case of a tank on skids and tractor overturning on the winter road) or reports to his/her immediate supervisor (in the case of all other spills on land or water). The supervisor is responsible for reporting the incident to the designated Incident Commander for a major spill or to the environment department for a minor spill. If a Code 1 is initiated, the Incident Commander will respond to any emergency in conjunction with the Emergency Response Team (ERT). Major responsibilities such as initial coordination, spill clean-up and mobilizing the ERT are part of the Incident Commander's duties.

The Incident Commander will contact the Environmental representative on site, and/or Site Manager or alternate, who in turn will inform the Exploration Manager and/or Environment Coordinator. After all the information has been collected, the Environmental representative or alternate, will submit a spill report and follow-up spill report to the NWT/NU Spill Line, Nunavut Water Board, Kivalliq Inuit Association and Crown-Indigenous Relations and Northern Affairs Canada. Incidents that require media communications will be the responsibility of the Agnico Eagle Exploration Manager or alternate.

Figure 2: Major spill/incident reporting procedure



#### **4.1 FIRST RESPONDER**

The person who has caused a spill or the first to observe the spill, is the first responder. The responsibilities of the First Responder are as follows:

- Initiate Code 1 in case of a major spill.
- Remain on the radio to provide guidance to the ERT;
- In case of spill on land, ice or water, contact the supervisor to report the incident;
- Identify and contain the spill, IF SAFE TO DO SO; and
- Participate in spill response as a member of the cleanup crew.

## **4.2 SUPERVISOR**

The responsibilities of the Supervisor are as follows:

- Initial assessment of the severity of the incident;
- Contact the Incident Commander;
- · Gather facts about the spill; and
- Participate in spill response as a member of the cleanup crew.

## 4.3 INCIDENT COMMANDER

The responsibilities of the Incident Commander are as follows:

- Assume complete authority over cleanup personnel and the spill scene;
- Assume responsibility for all mitigation efforts;
- Evaluate the initial situation and assess the magnitude of the problem;
- Activate the initial response plan;
- Alert and assemble key personnel in the response team, as deemed appropriate, to handle the situation;
- In consultation with the Environment staff member or designate, develop the overall plan of action for containment and clean up and direct and implement the plan;
- Ensure assigned responsibilities are carried out and the activities of team members are coordinated;
- Assess the requirements for people, equipment, materials, and tools to contain the spill in light of what resources are immediately available - urgency will depend on the nature of the spill; and
- In consultation with the Environment Staff member or designate, mobilize any additional resources that may be required and arrange for the transportation of necessary personnel and/or materials to the spill site.

#### 4.4 EMERGENCY RESPONSE TEAM

Agnico Eagle has an Emergency Response Team (ERT) that is trained and responsible for controlling large spills and assisting with medical and other emergencies that may occur. These team members attend regular training sessions.

## 4.5 EMERGENCY RESPONSE TEAM COORDINATOR

The responsibilities of the Emergency Response Team Coordinator (ERTC) are as follows:

- Mobilize all ERT personnel, equipment, Personal Protective Equipment (PPE) and supplies as required to the site of the spill;
- Assist the Incident Commander in obtaining any additional resources not available on site;
- Ensure that appropriate PPE is worn and used properly;
- Assist in developing and implementing emergency response training programs and exercises;
   and
- Ensure that all spill response personnel receive adequate training to fulfil their responsibilities as part of the ERT.

#### 4.6 ENVIRONMENT STAFF MEMBER

The Senior Environment Staff or designates are responsible for implementing and maintaining the SCP. In addition, the responsibilities of the Environment Staff or designates will be as follows:

- · Liaise with the Incident Commander;
- Provide technical advice on the anticipated environmental impacts of the spill;
- Advise on the effectiveness of various containment, recovery, and disposal options, and suggest the most appropriate approach;
- Prepare and submit any formal report (see Appendix A for NT/NU Spill Report Form) to regulators and AEM management detailing the occurrence of a spill;
- Contact the Exploration Manager and Environment Coordinator immediately in case of a major spill;
- Act as the spokesperson with regulatory and government agencies;
- If authorized by the Exploration Manager or delegate, act as a spokesperson with the public and media, as required;
- Implement a sampling protocol for the collection and analysis of samples to identify and monitor possible contaminant levels resulting from the spill;
- Ensure that on-site resources for spill response and cleanup are available;
- Monitor the effectiveness of the cleanup operation and recommend further work, if necessary;
- · Review incident occurrences and recommend preventative measures; and
- Assist in implementing training and simulation requirements for spill response personnel.

#### **4.7 SITE MANAGER**

The Site Manager or designate is required to inform ERT members of the detailed nature of the operations to be performed in the event of a facility malfunction causing a spill during the operation phase. The responsibilities of the Site Manager or designate will be as follows:

- Liaise with AEM personnel resources and keep them informed of cleanup activities; and
- Assist the Incident Commander and ERT as needed, particularly in obtaining any additional personnel and resources not available on site for spill response and cleanup.

#### 4.8 HEALTH AND SAFETY COORDINATOR

The following are the responsibilities of the Health and Safety Coordinator or designate in conjunction with the Training Department:

- Maintain emergency and health and safety records;
- Assist in conducting emergency spill response exercises;
- Track all emergency and health and safety training that on-site staff have received, and when retraining is required;
- Notify the Incident Commander (related to ERT) when retraining is required;
- Ensure that employees are retrained in appropriate emergency response skills prior to expiry of
  existing training certification, e.g., Workplace Hazardous Materials Information System (WHMIS),
  Hazard Communication (HAZCOM), Occupational Health and Safety Administration (OHSA), first
  aid, respirator fit-testing; and
- Consult with appropriate organizations regarding retraining requirements and schedule.

#### 4.9 ON-SITE HEALTH CARE PROVIDERS

On-site medics' responsibilities are to:

- Provide on-site first aid and other medical support; and
- Provide additional training for ERT members.

In addition to the health care providers on site, the Meadowbank Mine and Baker Lake health professionals will be called for assistance, if required.

## 4.10 EMERGENCY RESPONSE TEAM CONTACT INFORMATION

Internal contact information is presented in Table 2 for all Agnico Eagle personnel involved in spill recovery and subsequent reporting. Table 3 provides contact information for Agnico Eagle contractors present at the Amaruq and Meadowbank sites. Important external contacts such as regulatory agencies and health organizations are listed in Table 4. Table 5<sup>1</sup> provides contact information for external contractors should the incident warrant assistance from outside sources.

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<sup>&</sup>lt;sup>1</sup> These tables are to be updated frequently due to the changing nature of the activities at the site.

Table 2. Internal Contacts

Title	Name	Telephone No.		
Environmental Department (Mbk)	MBK Environmental	819.759.3555 ext. 4606744,		
Environmental Department (Mbk)	Tech. and Coord.	4605747, 4606759		
Incident Commander (Major Spill)	Mbk Coord.	819-759-3555 ext. 4606744		
Exploration Manager	Denis Vaillancourt	819-874-5980 ext 4103605		
Exploration Environmental	David Frenette	819-874-5980 ext 4103622		
Coordinator				
Meadowbank Medics	On-site Nurses	819-759-3555 ext. 4606734,		
Weddowbarik Wedies		4606751		
Meadowbank Security	On-site Security	819-759-3555 ext. 4606748		

Table 3. Contractor Contacts

Title	Telephone No.	Contact in Emergency for:			
Nolinor Aviation Services	Protocol Agent 867.759.3700 ext. 8008	Flight services for additional crew, or additional supplies			
First Air	1-800-267-1247	Flight services for additional crew, or additional supplies  Flight services for additional crew, or additional supplies			
Calm Air	1-800-839-2256				
Dyno Nobel Explosives Ltd.	(819) 825-5441	Heavy Equipment, Man power, Emergency Blasting			
Woodward Group of Companies (Shipping)	(709) 896-2421	Fuel Hauler			
Baker Lake Contracting & Supplies	(867) 793-2831 Press #1	Man power, equipment, trades personnel i.e. pipefitter, plumber, electrical			
Peter's Expediting	(867) 793-2703	Equipment, man power, Ground transportation services			
Arctic Fuel Services	(867) 793-2311 Office (867) 793-2301 Supervisor	Fuel hauling, trucking, man power.			

Table 4. External Contacts

Organization/Authority	Telephone Number	Fax Number		
NT-NU 24-Hour Spill Report Line	(867) 920-8130	(867) 873-6924		
The second secon	spills@gov.nt.ca			
Workers Safety and Compensation Commission	(867) 979-8500	(867) 979-8501		
Kivalliq Inuit Association	(867) 645-5725	(867) 645-2348		
Nunavut Water Board	(867) 360-6338	(867) 360-6369		
INAC Inspector	(867) 645-2830	(867) 979-6445		
Environment Canada – West and North Region	780-951-8600	780-495-2615		
Government of Nunavut – Department of Environment	(867) 975-7700	(867) 975-7742		
Kivalliq Health Services – Baker Lake	(867) 793-2816 Dial 0	(867) 793-2812		
Baker Lake Hamlet Office	(867) 793-2509			
Baker Lake Fire Emergency	(867) 793-2900			
RCMP Regular Hour	(867) 793-0123			
RCMP 24 Hour Emergency Number	(867) 793-1111			
Canadian Coast Guard (in the event of a spill to the marine environment)	(800) 265-0237	(519) 337-2498		
Superintendent Environmental Response	(519) 383-1954			
Superintendent Environmental Nesponse	(519) 381-6186 (cell)			
Transport Canada – Marine Safety				
Jaideep Johar	(204) 984-0397			
lan Salisbury	(780) 495-8360	(780) 495-8607		

## **SECTION 5. • ACTION PLAN**

Spills may be the result of any of the following events:

- Tanks, drums or containers may develop leaks or rupture;
- Equipment failure such as valves, piping or containment structures;
- Overfilling;
- Improper storage;
- Spills during transfer of fuel, chemicals or waste products; and
- Spills resulting from accidents during transportation.

## 5.1 INITIAL ACTION

For all spill emergencies, it is required that priority actions be undertaken. These are:

- Respond Quickly;
- Ensure Safety; and
- · Report the Spill.

## 5.1.1 RESPOND QUICKLY

- Identify the spilled material;
- Be alert ensure the safety of yourself and others by notifying them of the incident;
- Shut off ignition sources such as vehicles and unplug electrical equipment NO SMOKING;
- Attend to the injured;
- Assess the severity of the spill;
- Contact the Incident Commander, identify the location and request assistance as required; the Incident Commander will mobilize the Emergency Response Team if required.

The primary form of ensuring safety is by using preventative measures. All personnel who deal with chemicals must have training in first aid and safe materials handling, including the Workplace Hazardous Materials Information System (WHMIS). In addition, regular training updates and site-specific exercises / drills are integral to preventing incidents.

## 5.1.2 RESPOND SAFELY

- Consult the MSDS and Product Guides for further information on the substance;
- Keep people away from spill site;
- Wear appropriate PPE such as impervious clothing, goggles, and gloves when containing the spill;
- Approach spill from upwind IF IT IS SAFE TO DO SO;

- Assess whether the spill, leak, or system failure can be readily stopped or brought under control;
- Stop product flow or leak if possible and IF IT IS SAFE TO DO SO;
- Do not contain compounds (e.g. gasoline, aviation fuel) if vapours might ignite allow them to evaporate; and
- Depending on the type of compound spilled and IF IT IS SAFE TO DO SO, contain product using booms, berms, absorbent pads, earthen dikes, trenches or improvise with materials at hand.

## 5.1.3 REPORT SPILL

- Obtain all the necessary information to complete the external reportable spill report. External
  reportable spills must be reported to the NWT-NU 24-Hour Spill Line/CIRNAC/Kivalliq Inuit
  Association (KIA) and the Nunavut Water Board by Agnico Eagle Environment Staff.
- A detailed spill report, no later than 30 days after reporting the spill, will be submitted to the CIRNAC Water License Inspector and the KIA Land's Inspector by Agnico Eagle Environment Staff. This report will contain the amount and type of spilled product, the GPS location of the spill and the measures taken to contain, clean up and restore the spill site.

Procedures will vary depending on the season and hazardous material lost. The MSDS must be consulted to ensure that safety procedures are followed. Response procedures specific to spills on land, water, snow and ice are presented in the following sections as general guidelines.

## 5.2 SPILLS ON LAND

Response to spills on land will include the general procedures detailed in the following section. The main spill control techniques for spilled liquids involve the use of two types of barriers: dykes and trenches. Barriers should be placed down-gradient (down-slope) from the source of the spill, and as close as possible to the source of the spill. Barriers will slow the progression of the spill and will also serve as containment to allow recovery of the product spilled.

Depending on the volume spilled, the site of the spill, as well as the available material, a dyke may be built with soil, booms, lumber, snow, etc. A plastic liner should be placed at the foot of and over the dykes to protect the underlying soil or other material, and to facilitate recovery of the spilled product. Construct dykes in such a way as to accumulate a thick layer of free product in a single area (V-shaped or U shaped).

Trenches are useful in the presence of permeable soil and when the spilled product is migrating below the ground surface. A plastic liner should be placed on the down-gradient edge of the trench

to protect the underlying soil. If petroleum hydrocarbons were spilled, liners should not be placed at the bottom of the trench to allow water to continue flowing underneath the layer of floating petroleum hydrocarbons.

The use of large quantities of absorbent materials to recover important volumes of spilled product should be avoided. Large volumes of free-product should be recovered, as much as possible, by using vacuums and pumps, and containerized. If petroleum hydrocarbons were spilled, mixtures of water and petroleum hydrocarbons may be processed through an oil-water separator. Absorbent sheets should be used to soak up residual petroleum products on water, on the ground (soil and rock), and on vegetation. Peat moss may also be sprinkled on vegetation to absorb films of petroleum products.

## 5.3 SPILLS ON WATER

Response to spills on water will include the general procedures provided in the following section. Various containment, diversion and recovery techniques are discussed in the following sections. The following elements must be taken into consideration when conducting response operations:

- type of water body or water course (lake, stream, river)
- · water depth and surface area
- wind speed and direction
- type of shoreline
- seasonal considerations (open-water, freeze-up, break-up, frozen)

Containment of an oil slick in water will require the deployment of mobile floating booms to intercept, control, contain and concentrate (i.e., increase thickness) the floating oil. One end of the boom will be anchored to shore while the other will be towed by a boat and used to circle the oil slick and return it close to shore for recovery using a skimmer. Reducing the surface area of the slick will increase its thickness and thereby improve recovery. Mechanical recovery equipment (i.e., skimmers and oil/water separators) will be mobilized to site if required.

Measures will be taken to protect sensitive and accessible shorelines. The oil slick will be monitored to determine the direction of migration. In the absence of strong winds, the oil will likely flow towards the discharge of the lake. Measures will be taken to block and concentrate the oil slick at the lake discharge using booms where it will subsequently be recovered using a portable skimmer, a vacuum, or sorbent materials.

In small slowly-flowing rivers, streams, channels, inlets or ditches, inverted weirs (i.e., siphon dams) will be used to stop and concentrate moving oil for collection while allowing water to continue to flow unimpeded. In the case of floating oil in a stream heading for a culvert (i.e., at a road crossing), a

culvert block will be used to stop and concentrate moving oil for collection while allowing water to continue to flow unimpeded. In both cases the oil will then be recovered using a portable skimmer or sorbent materials.

In the case of spills in larger rivers, with fast moving currents, diversion booming will be used to direct the oil slick ashore for recovery. Single or multiple booms (i.e., cascading) may be used for diversion. Typically, the booms are anchored across the river at an angle. The angle will depend on the current velocity. Choosing a section of the river that is both wider and shallower will make boom deployment easier. Diversion booming may also be used to direct an oil slick away from a sensitive area to be protected.

## 5.4 SPILLS ON SNOW AND ICE

In general, snow and ice will slow the movement of petroleum hydrocarbons. The presence of snow may also hide the oil slick and make it more difficult to follow its progression. Snow is generally a good natural sorbent, as hydrocarbons will have a tendency to be soaked up by snow through capillary action. However, the use of snow as a sorbent material will be limited as much as possible. Snow and frozen ground will also prevent petroleum products from migrating down into soil or at least slow the migration process. Ice will prevent seepage of petroleum products into the water.

Most response procedures for spills on land may be used for spills on snow and ice. The use of dykes (i.e., compacted snow berms lined with plastic sheeting) or trenches (dug in ice) will slow the progression of the petroleum products and will also serve as containment to allow for its recovery.

Free-product will be recovered by using a vacuum, a pump, or sorbent materials. Contaminated snow and ice will be scraped up manually or using heavy equipment depending on volumes. The contaminated snow and ice will be placed in containers or within plastic lined berms on land.

# 5.5 SPILLS ON LAND WITHIN 31 METERS OF A WATER BODY

When drilling within 31 metres of a water body (when authorized), the following conditions will apply:

- Drilling is only to occur within 31 metres of a water body during winter;
- The drill pad is to be on stable ground such as frozen tundra or bedrock;
- All sumps and fuel caches shall be located at a distance of at least 31 metres from the high water mark of any adjacent water body. However, an exception to this condition allows for a limited quantity of fuel required to support the drilling operation to be within 31 metres; and.
- All fuel must be in a secondary containment.

In the event of a spill within 31 metres of a water body, a combination of protocols for land and snow will be employed.

# 5.6 DISPOSAL OF SPILLED MATERIAL

All contaminated spill pads and booms are to be placed in Quatrex bags or drums, and contaminated water is to be placed in drums or totes for treatment or shipment to an approved disposal facility. All petroleum hydrocarbon contaminated soils are to be removed to the Meadowbank mine for treatment in the landfarm. Soils contaminated with other hazardous materials will be packaged for shipment to an approved disposal facility.

## SECTION 6 • HAZARDOUS MATERIALS STORED ON SITE

Exploration activities will use a limited variety of petroleum products and other hazardous materials. All these products are considered as potential environmental and safety hazards.

Material Safety Data Sheets (MSDS) of all materials transported, stored and used on site will be made available at strategic locations near to where hazardous materials or toxic substances are stored or utilized. Appendices B and C provide General Response Procedures for Spilled Chemical Substances. Table 5 identifies the predominant hazardous materials transported, stored and generated at the site.

Table 5. Hazardous Materials Stored at Site

Material	Maximum Amount Present Onsite	Storage Location
Diesel Fuel	2000 litres	Drilling site
Ethylene Glycol	50 litres	Drilling site
Grease	50 kg	Drilling site
Jet Fuel	2050 litres	Drilling site
Oil	50 litres	Drilling site
Gasoline	25 litres	Drilling site

When barreled fuel is used, the barrels must be located in a secondary containment as self-supporting insta-berm, tank palette or a constructed lined berm.

#### SECTION 7 • POTENTIAL SPILL ANALYSIS

In order to prepare for an emergency spill response, a potential spill analysis was conducted on some worst-case scenarios. The exercise serves to identify potential risk areas, as well as to determine the fate of spilled products and their environmental effects. One potential scenario identified for one of the exploration projects was a spill on the winter road between the Meadowbank Mine Site and Amaruq where the contents of a double walled tank on skids would spill its load onto ice. The thinking is applicable to other scenarios.

#### Scenario: Road Accident Tractor and Tank on Winter Road

<u>Description of incident:</u> Spill the contents of a tank on skids onto the ice during transport from the

Meadowbank Mine Site to the Amaruq Project

Potential causes: Vehicle accident, human error

<u>Hazardous products spilled:</u> Diesel fuel Maximum volume spilled: 10,000 litres

Immediate receiving medium: Ice and snow on a lake

Distance and direction to nearest receiving body of water: Spill is on ice

Resources to protect: Lake and downstream water courses

<u>Estimated emergency response time:</u> Maximum time is 2 hours depending on location of spill (assuming tractor driver is injured and cannot commence spill response procedures). Minimum time to respond to a spill on the Winter Road is 60 minutes depending on the location of the spill.

<u>Spill response procedures:</u> Contain and recover oil slick on the ice as described in Section 5.4, minimizing the spread of the spill on ice and keeping it from spreading under the snow using sorbent materials.

Collect free product for temporary storage. If the response crew arrives before the completion of the spill response, seal the leak where feasible, contain and recover oil spill on ground using snow dykes or trenches as described in Section 5.4. If the truck driver is not injured, he will act as a first responder and immediately initiate the spill contingency plan as defined in Section 5 using the spill kit carried on the tractor.

#### **SECTION 8** • RESPONSE EQUIPMENT

# 8.1 GENERAL EQUIPMENT

This section addresses the emergency response machinery, equipment, tools and other resources that will be made available on site for spill counter measures.

Exploration Mobile Equipment available for spill response:

- Helicopter
- Backhoe
- Snowmobiles
- ATVs
- Mini excavator
- Excavator
- Dump truck
- Generators

If required, additional equipment is available at Meadowbank to assist in spill recovery. This includes:

**Snow Cat** 

•	, , , , , , , , , , , , , , , , , , , ,	•
•	Graders	Winch Trucks
•	Cranes	Pickup Trucks
•	Snowmobiles	Generator Sets
•	Vacuum Truck	Fire Truck
•	Loaders	Aluminum Boats
•	Backhoe	Fuel Trucks
•	Bulldozer	Bobcat
•	Forklift	Haul Trucks

Excavators

Water Trucks

Temporary containment systems available on site include:

- Booms;
- Drums;
- Tanks;
- Spill absorbent material packages/pads; and
- Silt fencing.

Emergency means of transportation that will be used in an emergency situation are:

- Aircraft (fixed wing or helicopter);
- Snow Cat
- 4-wheel drive vehicles;
- Snowmobiles; and

#### Boats.

Communication equipment on site includes radios, telephones and other wireless communication systems that will be used in the event of an emergency situation.

Spill Response kits are strategically located where required. Each department and work area is responsible for providing sufficient spill response kits in their respective work areas. The kits are kept in accessible locations. The locations include all fuel storage areas, chemical storage areas (if any), and areas where these products are used or transferred.

All of the mobile equipment carry an emergency spill kit.

If required, external resources are available at Meadowbank, in the hamlet of Baker Lake and from the contacts provided in Table 4. Spill response supplies located at the Meadowbank and Amaruq sites include items listed in Table 6.

Table 6, Spill response supplies

Material	Description of Use
Resorb universal matting roll	Universal
Resorb universal matting	Universal
Resorb oil matting roll	Petroleum hydrocarbons only
Boom 510 (5 inches)	Petroleum hydrocarbons only
Boom 810 (8 inches)	Petroleum hydrocarbons only
Oil dri quicksorb	Petroleum hydrocarbons only
Oil pillow	Petroleum hydrocarbons only
Yellow oil spill kit	Petroleum hydrocarbons only
Quatrex bags	Black no. 27
White quatrex bags	For used batteries disposal
Boom 2-12	Non-absorbent
Containment pallet	Secondary containment
Silt fence	36 inches by 100 feet
Peat moss	5 pound bag
Plug pattie	Plugs holes in tanks
Drums with lids	205 litres
HDPE liner roll	1.5 mm thickness

#### SECTION 9 • TRAINING AND EMERGENCY SPILL EXERCISE

#### 9.1 TRAINING OF ON-SITE PERSONNEL

Every employee at Agnico Eagle receives spill and waste management training during their initial site orientation so they are able to respond to small spills and raise the alarm if a larger response is required. ERT members receive more extensive HAZMAT training and learn how to respond while wearing personal protective clothing.

At the Meadowbank mine, a designated ERT consisting of on-site personnel was established. Agnico Eagle ensures that the ERT is trained and present at all times. All members of the team are trained and familiar with emergency and spill response resources, including their location and access, the SCP, and appropriate emergency spill response methodologies. The ERT has up to 40 members, each of whom train 8 hours per month. In the event of an emergency requiring outside help, the Meadowbank ERT would be called on.

An ERT training includes the following:

- A review of the spill response plan and responsibilities of the ERT members.
- The nature, status, and location of fuel and chemical storage facilities.
- The on-site and off-site spill response equipment and how to use it.
- Emergency contact lists.
- Desktop exercises of "worst-case" scenarios.
- The likely causes and possible effects of spills.

SECTION 10. • LIST OF ACRONYMS

AW PAR All Weather Private Road

DFO Fisheries and Oceans Canada

EMS Environmental Management System

ERP Emergency Response Plan
ERT Emergency Response Team

ERTC Emergency Response Team Coordinator

GN Government of Nunavut

INAC Indian and Northern Affairs Canada

LEL Lower Explosion Limit

Agnico Eagle Agnico-Eagle Mines Limited

MSDS Materials Safety Data Sheets

PCB Polychlorinated Biphenyls

PPE Personal Protective Equipment

SCP Spill Contingency Plan
TBD To Be Determined

WHMIS Workplace Hazardous Materials

	Spill Contingency Pla
Appendix A	
NWT/NU Spill Report Form	





# **NT-NU SPILL REPORT** OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

										REPORT LINE USE ONLY
Α	REPORT DATE: MONTH - DAY	'-YEAR			REPORT	TIME	OR	ORIGINAL SPILL REPO	REPORT, REPORT	
В	OCCURRENCE DATE: MONTH	MONTH – DAY – YEAR OC		OCCURR			UPDATE # THE ORIGINAL SPILL REPORT		7 - 19	
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THIRD SUPPORT AGENCY										