



AGNICO EAGLE

AMARUQ AND GOT

EXPLORATION PROJECTS

SPILL CONTINGENCY PLAN

August 2019

EXECUTIVE SUMMARY

The Amaruq and GOT Exploration Projects Spill Contingency Plan was developed to deal with inadvertent petroleum hydrocarbon and hazardous materials events that may occur during exploration activities. The Plan encompasses activities associated with mineral exploration activities including drilling.

The Spill Contingency Plan (SCP) designates lines of authority, 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, the Exploration Division can access resources at the Amaruq and Meadowbank Mines. This document includes some of the mine protocols and procedures.

IMPLEMENTATION SCHEDULE

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

DISTRIBUTION LIST

Agnico Eagle Exploration - Geology Supervisors

Agnico Eagle – Exploration - Environmental Coordinator

Agnico Eagle – Mine Operation Compliance Responsible

DOCUMENT CONTROL

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1	2012/09/28			Update to include license requirement for Amendment no 2.
2	2013/05/22	6		Addition of the barrel storage procedure
3	2013/05/22	2.1		Spill kit use
4	2013/05/22	2.2		Refuelling during drilling
5	2014/10/17			Document adaptation to include Amaruq, complete revision
6	2014/02/18	2.3		Additional information related to fuel transport
7	2015/06/03	2.4		Addition Section 2.4 for the drilling on Barge
8	2016/01/21	2		Increased the number of fuel tanks
9	2016/02/23			Updated the entire Spill Contingency Plan (J.W.)
10	2016/03/15			Added the portal/ramp and quarry to the spill plan
11	2019/03/01			Complete revision to add GOT exploration area and removed what is now covered under the type A water licence
12	2019/08/20			Amaruq Exploration Camp relocation

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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 of potentially hazardous materials at the mineral exploration sites. These hazardous materials include mainly:

- Petroleum hydrocarbon liquids such as diesel and jet fuels, gasoline, hydraulic oil; and
- Soluble liquids, such as glycols, and paints.

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

- Identify roles and responsibilities in regard to the spill management;
- 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:

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

SECTION 2 • PROJECT DESCRIPTION

The Amaruq and the GOT Exploration Projects, operated by Agnico Eagle Mines Limited, are located approximately between 40 km and 80 km northwest of the Meadowbank mine and between 120 km and 150km mostly north of Baker Lake. The plan includes mineral exploration activities conducted in the area covered under the 2B type water licences in the Amaruq Area. The Meadowbank exploration camp is not presently being used and its accommodation trailers have been relocated to Amaruq. Some exploration work continues nonetheless in the vicinity of the Meadowbank mine under 2B water licence.

Emergency spill response equipment (i.e. spill kits) are located at all fuel storage locations. Spill kits contain the appropriate type and quantity of equipment for the volume and type of product present at the storage location. All heavy equipment and light vehicles are equipped with spill kits.

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 in handling or working with 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 form of 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 and readily available spill response materials (details on spill prevention equipment are outlined in Section 8).

2.2 REFUELLING AT A DRILL

Refueling will not take place below the high water mark neither inside the 31-metre protection buffer area 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.

2.3 DRILLING FROM A BARGE

Drilling from a barge involves specialized protocols to minimize risks of contaminating the water. To reduce the risks associated with using fuel on the barge, fuel is transported and stored in double walled tanks. Other hazardous products such as oil and glycol used on the barge are present in limited quantities and are stored in secondary containment.

A further contingency measure for this drilling activity is the installation of an oil boom absorbent around the drill while in operation. This boom is hydrophobic and represents a protective measure in case of a spill in the water.

A modified spill kit specific to this drilling is located on the barge. To allow an effective and rapid response, it includes a boom to be deployed in the lake in the event of a spill. Further spill response equipment and supplies are located at the Amaruq exploration camp should a major incident occur.

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 Mine Emergency Response Team (ERT) is immediately notified when a major spill or emergency occurs.

A minor spill is defined as any hazardous chemical spill that does not involve highly toxic, highly reactive, or explosive chemicals in a situation that is not life threatening. Furthermore, this type of spill presents a manageable physical or health hazard to personnel who, when wearing proper personal protective equipment, will not be exposed to any chemical at a level that exceeds any recognized action level or permissible exposure limit. Minor or simple 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 encourage all employees to communicate non-reportable spill incidents.

To ensure compliance with Section 38(5) of the *Fisheries Act*, Section 5(1) of the *Migratory Bird Regulations*, the section 5.1 of the *Nunavut Environmental Protection Act* 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 Amount¹
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-flammable)	Any amount from containers with a capacity exceeding 100 L
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

¹ L = litre; kg = kilogram; PCB = polychlorinated biphenyls; ppm = parts per million.

SECTION 4 • RESPONSE ORGANIZATION

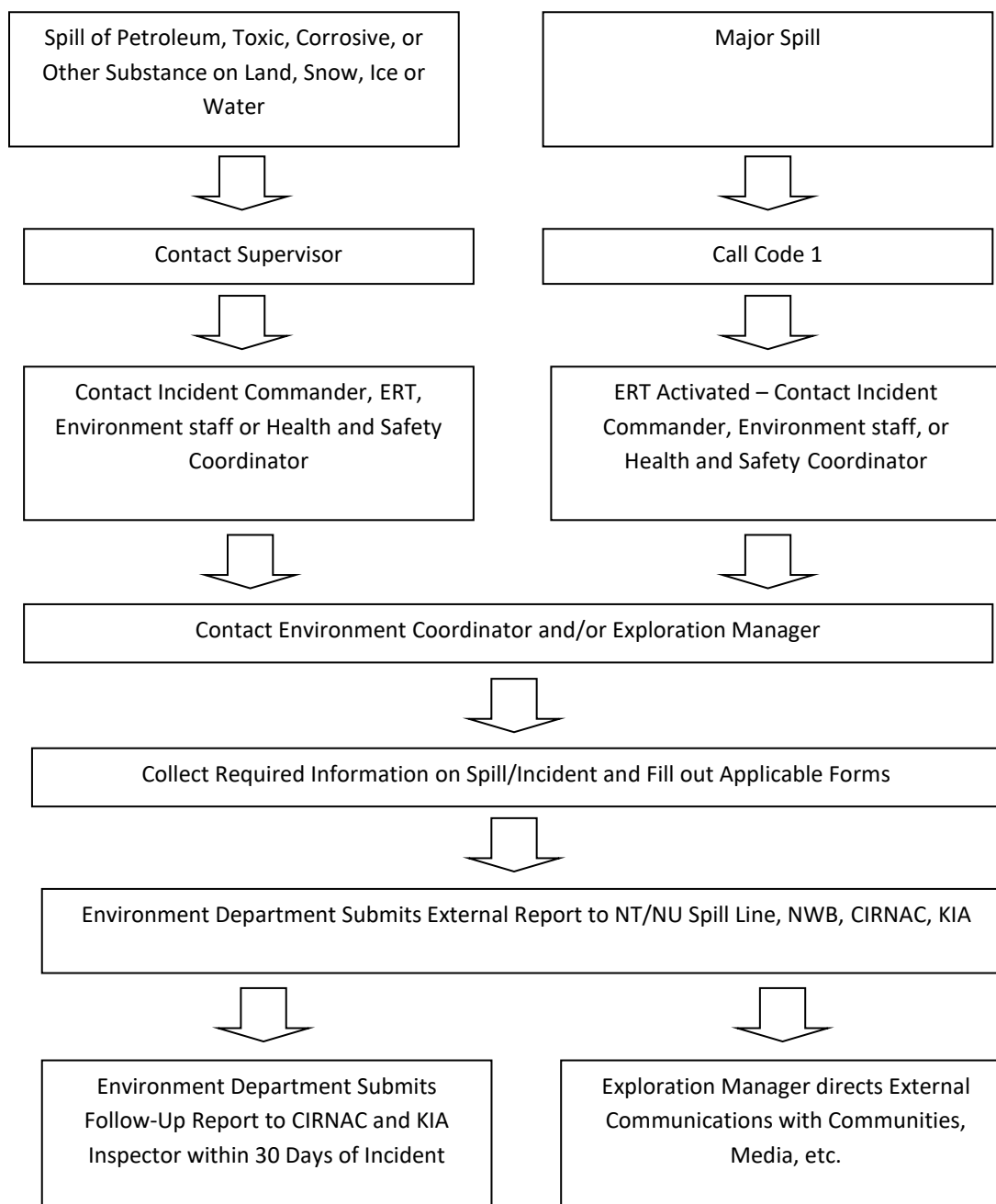
This section addresses the response organization and the responsibilities of each individual during response to an incident.

Figure 1 illustrates Agnico Eagle's Spill Reporting Procedure in the event of a 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 major spill) 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 Supervisor. 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 and Northern Affairs Canada. Incidents that require media communications will be the responsibility of the Agnico Eagle Exploration Manager or alternate.

Figure 1 : Major spill/incident reporting procedure



4.1 FIRST RESPONDER

The person who causes a spill, or the first to observe a 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 a spill on land, ice or water, contact the Supervisor to report the incident;
- Identify spilled product 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:

- Initially assess 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 ERT, as deemed appropriate, to handle the situation;
- In consultation with the Environment staff member at the time or designate, develop the overall plan of action for containment and cleanup 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

Emergency Response Team (ERT) members are trained and will be responsible for responding to large spills. For example, they will be called upon to respond to spills from possible tractor and tank rollovers along the winter access or at the tank farm. These team members will attend regular training sessions in spill response.

4.5 EMERGENCY RESPONSE TEAM COORDINATOR

The responsibilities of the Emergency Response Team Coordinator 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 designate are responsible for implementing and maintaining the SCP. In addition, the responsibilities of the Environment Staff or designate 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, recoveries, 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 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. 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

The on-site medics'/nurses responsibilities are to:

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

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 2. Internal Contacts

Title	Name	Telephone No.
Exploration Environmental Coordinator	David Frenette	819-874-5980 ext 4103622
Environmental Department (Amaruq)	Environmental Coordinator	819-759-3555 ext. 4606808 ext.4606838
H&S Superintendent or H&S Ass. Superintendent	Markus Uchtenhagen	819-759-3555 ext. 4606720 Cell: 819-860-6258
Incident Commander	Nancy Duquet Harvey	Cell: 819-856-4385
Exploration Manager	Denis Vaillancourt	819-874-5980 ext 4103605
On-site Medics	On-site Nurses	819-759-3555 ext. 4606734 or 4606751
Corporate Director, Communications & Public Affairs	Dale Coffin	418-847-8669 Cell: 547-274-4154

Table 3. Contractor Contacts

Title	Telephone No.
Orbit Garant	819-759-3555 ext. 4106815
Peter's Expediting	867-793-2703
Baker Lake Contracting and Supplies	867-793-2831

Table 4. External Contacts

Organization/Authority	Telephone Number	Fax Number
NT-NU 24-Hour Spill Report Line	867-920-8130 spills@gov.nt.ca	867-873-6924
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
CIRNAC Manager Field Operations	867-975-4553	867-975-6445
Environment and Climate Change Canada, Enforcement Branch	867-975-4644	867-975-4594
Department of Fisheries and Ocean (DFO), Nunavut Regional Office	867-979-8000	867-979-8039
Government of Nunavut, Department of Environment	867-975-7700	867-975-7742
Kivalliq Health Services – Baker Lake (Health Centre)	867-793-2816	867-793-2509
Baker Lake Hamlet Office	867-793-2874	867-793-2812
Baker Lake Fire Emergency	867-793-2900	

SECTION 5 • ACTION PLAN

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

- Tanks, drums or containers may develop leaks or rupture;
- Failure of equipment 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 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, and 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 spill report form and provide to Environment department. Spills that meet regulatory reporting criteria must be reported to the NWT-NU 24 Hour Spill Line/Kivalliq Inuit Association/CIRNAC/ECCC and the Nunavut Water Board by Agnico Eagle Environment Staff.
- For reported spills, a detailed spill report, no later than 30 days after reporting the spill, will be submitted to the inspectors by Agnico Eagle Environment Staff. This report will contain the amount and type of spilled product, the GPS location of the incident 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 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 shoreline. 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 (where 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 for treatment or for 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 exploration sites.

Table 5. Hazardous Materials Planned

Material	Maximum Amount Planned Onsite	Storage Location
Diesel Fuel	60000 litres	Explo Camp
Ethylene Glycol	1000 litres	Explo Camp
Grease	1000 litres	Explo Camp
Jet Fuel	100000 litres	Explo Camp
Oil	2000 litres	Explo Camp
Propane	1000 pounds	Explo Camp

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 MAJOR SPILL ANALYSIS

In order to prepare for an emergency spill response, a potential spill analysis is 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 the exploration projects was a spill due to a transportable fuel tank falling from a helicopter near a water body and spilling in it. The thinking is applicable to other scenarios.

Scenario: Spill during drums aerial transport

Description of incident: Spill the contents of a fuel drum transported by a helicopter and falling near a water body and then spilling toward the water.

Potential causes: Sling/net broken

Hazardous products spilled: Diesel fuel

Maximum volume spilled: 2 0 5 litres

Immediate receiving medium: On the ground and then toward a lake

Distance and direction to nearest receiving body of water: Less than 10 meters from the water body

Resources to protect: Lake and downstream water courses, soil

Estimated emergency response time: Maximum time is 1 hours depending on location of spill by using the helicopter to transport response team from Meadowbank or Amaruq to the spill site.

Spill response procedures: Contain and temporarily store the free fuel. Contain fuel present on the water body as described in section 5, minimizing the spread of the spill by installing mobile floating boom in the water to intercept, control, contain and concentrate the fuel until recovery by using a skimmer, a vacuum or sorbent material. Install barriers down-gradient (down-slope) from the source of the spill, and as close as possible to the source. Barriers will slow the progression of the spill and will also serve as containment to allow recovery of the product spilled. Reclamation of the site will include removal of the contaminated soil and water and transport to the Meadowbank Mine for treatment.

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.

Mobile Equipment available for spill response at Amaruq includes:

- | | |
|----------------|----------------|
| • Graders | Winch Trucks |
| • Cranes | Pickup Trucks |
| • Snowmobiles | Generator Sets |
| • Vacuum Truck | Fire Truck |
| • Loaders | Aluminum Boats |
| • Backhoe | Fuel Trucks |
| • Bulldozer | Bobcat |
| • Forklift | Haul Trucks |
| • Water Trucks | Snow Cat |
| • Excavators | |

Temporary containment systems available on site include:

- Booms
- Drums
- Tanks
- Spill absorbent material packages/pads
- 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
- Boats
- Snow bear

Communication equipment 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 marked and accessible locations. The locations include all fuel storage areas, chemical storage areas, and areas where these products are used or transferred.

Spill response supplies located at the Meadowbank and Amaruq sites include the following materials:

- Universal/oil absorbent
- Hydrophobic absorbent
- Granular absorbent

- Quatrex bag
- Containment Pallet
- Silt fence
- Peat moss
- Plug pattie
- Drums with lid
- HDPE liner roll
- Geotextile roll
- Containment boom

SECTION 9 • TRAINING AND EMERGENCY SPILL EXERCISE

9.1 TRAINING OF ONSITE 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 mine sites, a designated ERT consisting of on-site personnel has been 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 trains 8 hours per month.

The following training is included:

- 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

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

A	REPORT DATE: MONTH - DAY - YEAR		REPORT TIME		☐ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH - DAY - YEAR		OCCURRENCE TIME			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE		SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS					
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE	
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC			SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Appendix B

General Response Procedures for Spilled Chemical Substances

Compressed Gases

Compressed Gases

The following is a general spill response procedure for compressed gases. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required. AEM commits to review and test, and if necessary, modify and update this spill response procedure on an annual basis.

For a compressed (inert and flammable) gas leak:

- 1) IF SAFE TO DO SO and if it stops the gas leak, turn off cylinder valve.
- 2) If the leak cannot be stopped by closing the cylinder valve, and it is **an inert atmospheric gas** (e.g. nitrogen, carbon dioxide, etc.), isolate and evacuate the affected area. If the leak is a **flammable gas** and the leak is outside of a ventilated building enclosure that will contain the gas, immediately activate the fire alarm system and evacuate the area/building.
- 3) Contact the On-Scene Coordinator who will assemble spill response team members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.
- 4) If possible and safety permits, adjust leaking cylinder so that gas escapes rather than liquid.
- 5) If possible and safety permits, eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area) and turn off electrical equipment.
- 6) If the spill has occurred outdoors, stay upwind and avoid low lying areas. If the spill has occurred inside a building, prevent spread of vapours throughout the building by closing doors to other rooms and hallways. If the room's air exchange system distributes air throughout the building, then it may also be necessary to have it shut-down. Allow vapours to ventilate outdoors by opening windows and doors to the exterior.
- 7) Isolate area until gas has dispersed. On-Scene Coordinator to verify safe conditions.

Appendix C

General Response Procedures for Spilled Chemical Substances

Flammable and Combustible Liquids

Flammable and Combustible Liquids

The following is a general spill response procedure for flammable or combustible liquids, particularly petroleum hydrocarbon products. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a spill of flammable or combustible petroleum hydrocarbon product (liquid):

- 1) Isolate and evacuate the spill area.
- 2) Immediately extinguish any open flames and remove ignition sources (no smoking, flares, sparks in immediate area) IF SAFE TO DO SO.
- 3) Stop leak and contain spill (**see Step 9**) IF SAFE TO DO SO.
- 4) Contact the On-Scene Coordinator who will assemble ERT members if required and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.
- 5) Put on appropriate personal protective equipment. Depending on the scale of the spill and properties of the spilled substance, this can include:
 - a. Gloves **as recommended by the MSDS or glove manufacturer.**
 - b. Splash goggles or face shield.
 - c. Shoe covers or rubber boots.
 - d. Lab coat or Tyvek™ coveralls.
 - e. Half mask air-purifying respirator with **organic vapour or combination** cartridges, or **as otherwise recommended by the MSDS or respirator manufacturer.**
- 6) If the spill has occurred outdoors, stay upwind and avoid low lying areas. If the spill has occurred inside a building, prevent spread of vapour throughout the building by closing doors to other rooms and hallways. If the room's air exchange system distributes air throughout the building, then it may also be necessary to have it shut down.
- 7) Ventilate (open windows/doors to outdoors) closed spaces before entering. Ensure adequate explosion-proof ventilation for clean-up. A vapour suppressing foam or water spray may be used to reduce vapours.
- 8) Remove all sources of ignition (no smoking, flares, sparks or flames in immediate area) combustible materials (wood, paper, oil, etc.) within the spilled area.
- 9) Contain spill by using spill absorbent, spill pads or pillows, soil or snow to construct a dike that limits flow and prevents entry to sewer, waterways or onto ice. For spills on land, excavation of trenches/pits to capture spill flow may also be appropriate. If possible, compact soil or snow dikes, and place plastic tarps over the dike and at its foot to allow the product to pool on the plastic for easy recovery.

Note: Do not use paper towels to absorb spill as this increases the rate of evaporation and vapour concentration in the air.

Note: Do not flush with water into drainage areas or ditches as this will spread spill.

Note: Snow works well as a natural absorbent to collect and contain spilled petroleum hydrocarbons. However, its use in containing a spill will result in a water-contaminant mixture that may be more difficult to manage. It is important to scrape up the contaminated snow and ice as soon as possible.

10) Carefully cover the spill area with spill absorbent, spill pads, soil or snow, starting at the outside and working inward. Do not touch or walk through spilled material.

11) Sweep up or shovel the residue using non-metallic, spark-proof tools and place the residue into a labelled, plastic, waste container (plastic pail with lid or double heavy duty plastic bags). For larger spills on land, excavate impacted absorbent material and soil, place in lined and bermed temporary storage area or directly into sealed drums/containers.

Note: The drums/containers/residues are to be stored in ventilated areas away from incompatible materials for eventual treatment at on-site landfarm or off-site disposal at a licensed disposal facility. Electrically ground all containers and transporting equipment.

Note: Larger pools of product may be pumped into empty storage tanks or drums.

12) If spill is indoors, mop the affected area using detergent and water. Dispose of this water in drums for eventual off-site disposal at a licensed disposal facility. Spills on land may require further excavation or remediation of contaminated soil until acceptable soil quality is achieved. The On- Scene Coordinator and/or Environmental Superintendent will assess this requirement.

13) For spills on water, immediately limit the area of the spill on water using absorbent pads and booms and similar materials to capture small spills on water. Deploy and slowly draw in absorbent booms to encircle and absorb the spilled product. Recover larger spills on water with floating skimmers and pumps, as required, and discharge recovered product to drums or tanks.

Note: Petroleum hydrocarbons are generally hydrophobic, and as such, do not readily dissolve in water. They typically tend to float on the water's surface. Absorbent booms are often relied on to recover hydrocarbons that escape land containment and enter water.

Note: Antifreeze sinks and mixes with water. If released in water, attempt to isolate/confine the spill by damming or diverting the spill. Pump contaminated water to tanks or drums.

14) Remove and bag personal protective equipment for cleaning, informing laundry personnel of contaminant hazards, or disposal at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated leather articles, (including shoes) that cannot be decontaminated.