MELIADINE GOLD PROJECT

TRANSPORTATION SPILL CONTINGENCY PLAN

for the Phase 1 All Weather Access Road between Rankin Inlet and the Meliadine site

Water Licence 2BW-MEL1215

April 2012

DOCUMENT CONTROL

Version	Date (YMD)	Section	Page	Revision
1	4 Nov 2011			First draft of the Spill Plan
2	17 Jan 2012			Phone numbers updated for Environment Canada

Plan prepared by:

John Witteman
Environmental Consultant to Agnico-Eagle Mines Limited

Plan approved by:

Eric M Lamontagne
Project Manager
Meliadine Gold Project

INITIAL SPILL RESPONSE PRIORITIES

SAFETY FIRST

1. RESPOND QUICKLY

1. Identify the spilled material.
2. Ensure safety of yourself and others.
3. Shut off ignition sources - NO SMOKING.
4. Attend to Injured.
5. Assess the severity of the spill.
6. Call for assistance.
7. **AWAR Road Manager mobilizes Emergency Response Team**.
   Meliadine Site: 819 759 3999
8. Keep unnecessary people out of the area.
9. Wear impervious clothing, goggles, and gloves.
10. Approach spill from upwind IF **SAFE TO DO SO**.
11. Stop product flow if possible.
12. Contain and recover spill as soon as possible.
13. Notify Henry Kablalik, Resource Management Officer, Rankin Inlet
    KablalikH@inac-ainc.gc.ca, 867 645 2831, fax 867 645 2592

2. RESPOND SAFELY

1 Do not contain gasoline or aviation fuel if vapours might ignite.
2 Allow gasoline or aviation fuel spills to evaporate.
3 See Appendix A - Product Guides for further information.

3. OBTAIN AND REPORT SPILL DETAILS

NWT Spill Report Forms are in Appendix C of this spill contingency and response plan.

Table: Reportable Spills

Contaminant Type	TDGA Class	Reportable Spill
Explosives	1	Any amount
Compressed Gas (Flammable)	2.1	Any amount from containers greater than 100 L
Flammable liquid	3.1, 3.2, 3.3	100 L
Other	See Appendix G Consolidation of Spill Contingency Planning and Reporting Regulation, Schedule B	

Note: All releases of harmful substances regardless of quantity are immediately reportable where the release is near a water body, is near a designated sensitive environment or sensitive wildlife habitat, poses an imminent threat to human health or safety, or poses an imminent threat to a listed species at risk or its critical habitat.

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1. INTRODUCTION

1.1 PURPOSE

This Transportation Spill Contingency Plan is designed to promote environmental awareness and safety, as well as facilitate the efficient cleanup of spills as the result of:

1. transportation incidents along the All Weather Access Road while in transit between Rankin Inlet and the Agnico-Eagle Mines Limited (AEM) advanced exploration site at Meliadine Lake involving the following substances:
   - P-50 Diesel
   - Gasoline
   - Jet A and Jet B turbo fuel
   - Hydraulic Oil
   - Lube Oil
   - Waste Oil
   - Propane
   - other materials hazardous to the safety of personnel and the environment as outlined in Appendix G, Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93, Schedule B

Principal objectives of the Spill Contingency Plan are:

1. To provide readily accessible emergency information to cleanup crews, Meliadine Gold Project personnel, Kivalliq Inuit Association (KIA), Hamlet of Rankin Inlet and government agencies in the event of a spill.
2. To comply with federal and territorial regulations pertaining to the preparation of contingency plans and notification requirements.
3. To promote the safe and effective recovery of spilled materials.
4. To minimize the environmental impacts of spills to water and/or land.
5. To facilitate the management of wastes according to environmental legislation.

1.2 SCOPE

This Plan addresses the organization of the Meliadine Gold Project spill response and related emergency measures for the All-weather Access Road. Alerting and notification procedures and cleanup strategies are outlined along with the duties and responsibilities of key spill response personnel. Emergency contacts are listed for AEM, AEM's contractors, local government agencies, and the Nunavut Power Corporation in Rankin Inlet. Emergency response equipment that is available immediately (should a spill occur) from local freighting contractors, such as M & T Enterprises and the Nunavut Power Corporation in Rankin Inlet is listed.

More information in support of this Transportation Spill Contingency Plan and ensuing spill response actions is provided in the following appendices:

- Appendix A contains summaries of physical / chemical properties and emergency response measures for hydrocarbon substances to be transported to the Meliadine site;

- Appendix B contains an up-to-date inventory of spill response equipment and kits available at various locations at the Meliadine site;
- Appendix C contains NT/NU Spill Report Form that is to be used to report spills;
- Appendix D contains a list of basic components of a Fuel Spill Response Kit;
- Appendix E lists conditions and equipment required for fuel trucks on the All Weather Access Road;
- Appendix F provides a procedure for the management of a large fuel spill; and
- Appendix G Consolidation of Spill Contingency Planning and Reporting Regulations R-068-93, Schedule B.

AEM expects to contract out the delivery of fuel, lubricants and other products to the Meliadine site. The contractors will be trained for spill response and are responsible for supplying spill kits that complement this Transportation Spill Contingency Plan. In the event of a spill, the contractor is expected to implement a spill response immediately with AEM's plan serving as a back-up.

1.3. AWAR DESCRIPTION

Fuel will be picked up at the existing Rankin Inlet tank farm and delivered to in tank farm at the Meliadine Site. The terminus of the AWAR will be the Meliadine site. The greatest likelihood of a spill will be in the transportation of fuel to the site and every effort will be made to avoid such incidents. Spills at the Meliadine site are addressed under a separate Fuel Management and Spill Contingency Plan.

What will be delivered from the Meliadine site to Rankin Inlet will be hazardous waste that has been packaged for the TDGA. This material will be stored in sea cans for shipment south to a licenced hazardous waste management facility for treatment and disposal.

Spill kits are available at the Meliadine site for spills along the AWAR.

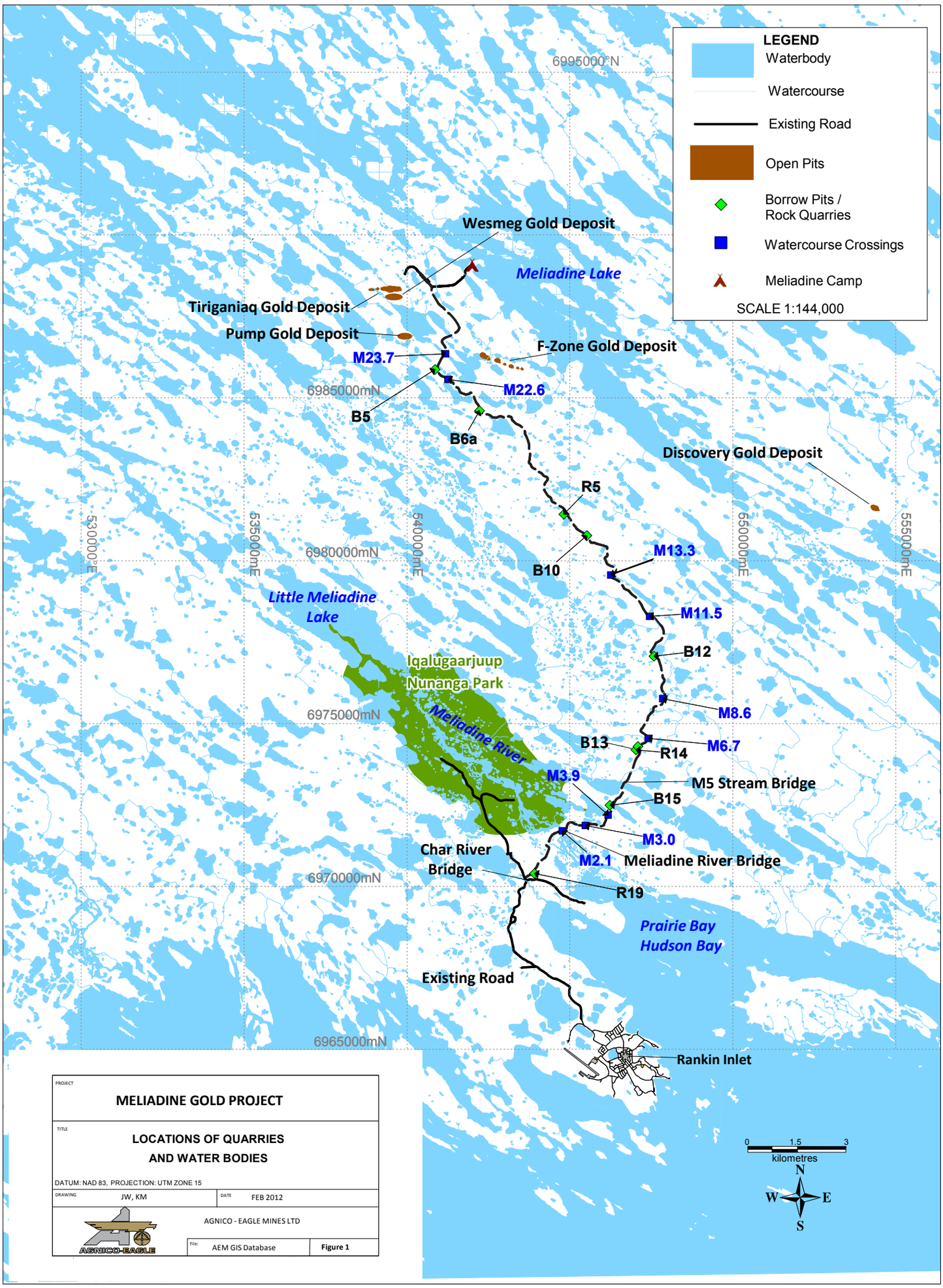
Spill kits are in bright yellow 200 L containers at the Meliadine site and include:

- basic personal protective equipment including goggles and latex gloves;
- sorbent materials including socks, pillows, pads and granular substances; and
- large plastic bags for containing and transferring contaminated sorbent materials.

Larger spills will be cleaned up by a combination of sorbent materials, and containment and collection in empty 205 L drums on site and subsequently stored in sea cans for later shipment south to a licenced hazardous waste management facility. Recovered fuels will be disposed of by incineration.

1.4 Training

A site specific training program consistent with the scope of the current operations is being developed with the contractors. The program will cover all components of the day to day transportation of fuels to the site and the occasional shipment of packaged hazardous waste to Rankin Inlet for shipment to a licenced hazardous waste management facility. The training will include WHMIS review of dangerous goods handling and focus on safe procedures for the operation of the fuel facilities and fuel re-supply. Spill management techniques will also be incorporated into the training program.



PROJECT

MELIADINE GOLD PROJECT

TITLE

LOCATIONS OF QUARRIES AND WATER BODIES

DATUM: NAD 83, PROJECTION: UTM ZONE 15

DRAWING	JW, KM	DATE	FEB 2012

AGNICO - EAGLE MINES LTD

File: AEM GIS Database | **Figure 1**

Figure 1 All Weather Access Road

2. SPILL ACTION PLAN RESPONSE SEQUENCE

2.1 REPORT ALL SPILLS TO (AUTHORITY TO ACTIVATE PLAN):

ON-SITE MANAGER or **SENIOR PERSONNEL** on site	
Site:	Ph. 819 759 3999
Exploration Office	Ph. 819 874 5880 ext 3600; Fax 819 856 8124
GOVERNMENT 24-HOUR	Ph. (867) 920-8130

The reporting requirement applies to all spills: on land, on water and on ice.

The reporting requirement applies equally to all substances covered by this contingency plan; fuels, hydraulic oil, lubricants, and waste oil. All reports by telephone must be followed with a fax of the completed report form (see Appendix C) to the number indicated on the reporting form.

Reporting and notification described below must be made by the first observer of the spill or the observer's superior **immediately upon the spill being under control, or on failure to gain control of the situation**.

2.2 ALERT AEM Personnel:

- SPILL OBSERVER report to **ON-SITE SITE MANAGER**		1 819 759 3999
- **MELIADINE GOLD PROJECT MANAGER** Eric Lamontagne		1 819 860 1693
Alternate Environmental Coordinator	Sylvain Doire	1 819 759 5186 (5186)
	Cell	1 819 279 3192
Environmental Emergency Contact	Stéphane Robert	1 819 759 3700 (814)
	Cell	1 819 763 0229
- Contractors (clean up) - M & T Enterprises Ltd., Rankin Inlet		1 867 645 2778

2.3 NOTIFY AGENCIES:

24 HOUR NT/NU SPILL REPORT LINE	PHONE	1 867 920 8130
	FAX	1 867 873 6924
	EMAIL	spills@gov.nt.ca
KIVALLIQ INUIT ASSOCIATION	Phone:	1 867 645 2810
	Phone:	1 867 645 2800
	Fax:	1 867 645 2348

ABORIGINAL AFFAIRS AND NOTHERN DEVELOPMENT CANADA

Iqaluit	1 867 975 4275
Nunavut Field Operations	1 867 975 4546
Resource Officer, Rankin Inlet	1 867 645 2831

ENVIRONMENT CANADA	Iqaluit		1 867 975 4639
FISHERIES AND OCEANS, Rankin Inlet			1 867 645 2871
DEPARTMENT OF ENVIRONMENT, NUNAVUT			1 867 975 5900
Manager of Pollution Control & Air Quality			1 867 975 7748
		Fax	1 867 979 5981

Emergency Contacts

EMO – Emergency Response (Iqaluit - 24 hr)	1 867 766 3737
EMO – Emergency Response – Rankin Inlet	1 867 645 3625
Rankin Inlet Ground Search and Rescue	1 867 645 2027
Rankin Municipality (Senior Administrator)	1 867 645 2895
RCMP – 24 HR EMERGENCY	1 867 645 1111
Rankin Inlet Health Center	1 867 645 2816
After Hours	1 867 645 3311
Midwife (if no answer above)	1 867 645 4607
Rankin Inlet Fire Department	1 867 645 2525
Mine Inspector	1 800 661 0792

2.4 RECORD THE FACTS

Use Spill Report Form found in Appendix C

NOTE: **If the On-Scene Coordinator is not available when a spill is detected then the spill must be reported directly to NWT 24-hour spill report line without delay.**

3. INITIAL SPILL RESPONSE PRIORITIES

SAFETY FIRST

3.1 RESPOND QUICKLY

1. Identify the spilled material.
2. Ensure safety of yourself and others.
3. Shut off ignition sources - NO SMOKING.
4. Attend to Injured.
5. Assess the severity of the spill.
6. Call for assistance.
7. **On-site Manager mobilizes Emergency Response Team**.
8. Keep unnecessary people out of the area.
9. Wear impervious clothing, goggles, and gloves.
10. Approach spill from upwind **IF SAFE TO DO SO**.
11. Stop product flow if possible.
12. Contain and recover spill as soon as possible.

3.2 RESPOND SAFELY

1 Do not contain gasoline or aviation fuel if vapours might ignite.
2 Allow gasoline or aviation fuel spills to evaporate.
3 See Appendix A - Product Guides for further information.

3.3 OBTAIN AND REPORT SPILL DETAILS

NT-NU Spill Report Form is found in Appendix C of this spill contingency and response plan.

DIESEL - P 50 - SPILL RESPONSE ACTIONS

CONSIDER ACTION ONLY IF SAFETY PERMITS!

- **ELIMINATE IGNITION SOURCES**
- **STOP SOURCE OF DIESEL IF SAFE TO DO SO**

ON LAND

- Do not flush into ditches or drainage systems.
- Block entry into waterways and contain with earth, snow or other barrier.
- Remove small spills with sorbent pads.
- On tundra use peat moss and leave in place to degrade, if practical.

ON SNOW & ICE

- Block entry into waterways and contain with snow or other barrier.
- Remove minor spills with sorbent pads and/or snow.
- Use ice augers and pump to recover diesel under ice.
- Slots in ice can be cut over slow moving water to contain oil.
- Burn accumulated diesel from the surface using Tiger Torches if feasible and safe to do so.

ON MUSKEG

- Do not deploy personnel and equipment on marsh or vegetation.
- Remove pooled diesel with pumps and skimmers.
- Flush with low pressure water to herd diesel 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 spill containment boom to concentrate slicks for recovery.
- On small spills, use sorbent pads to pick up contained oil.
- On larger spills, use skimmer on contained slicks.
- Do not deploy personnel and equipment onto mudflats or into wetlands

RIVERS & 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.

STORAGE / TRANSFER

- Store closed, labelled containers outside away from flammable items.
- Electrically ground containers and vehicles during transfer.

DISPOSAL

- Segregate waste types.
- Place contaminated materials into marked containers.
- Consult Site manager on disposal procedures.

HYDRAULIC OIL SPILL RESPONSE ACTIONS

CONSIDER ACTION ONLY IF SAFETY PERMITS

- **ELIMINATE IGNITION SOURCES**
- **STOP SOURCE OF HYDRAULIC OIL IF SAFE TO DO SO**

ON LAND

- Do not flush into ditches or drainage systems.
- Block entry into waterways and contain with earth, snow or other barrier.
- Remove small spills with sorbent pads.
- On tundra use peat moss and leave to degrade if feasible to do so.

ON SNOW & ICE

- Block entry into waterways and contain with snow or other barrier.
- Remove minor spills with sorbent pads and/or snow.
- Use ice augers and pump when feasible to recover oil under ice.
- Burning hydraulic oil will not likely be feasible.
- Mechanical removal (scraping) can be tried.

ON MUSKEG

- Do not deploy personnel and equipment on marsh or vegetation.
- Remove pooled oil with pumps and skimmers.
- Flush with low pressure water to herd oil to collection point.
- Minimize damage caused by equipment and excavation.
- Burning is not likely possible.

ON WATER

- Contain spill as close to release point as possible.
- Use spill containment boom to concentrate slicks for recovery.
- On small spills, use sorbent pads to pick up contained oil.
- On larger spills, obtain and use skimmer on contained slicks.
- Do not deploy personnel and equipment on mudflats or wetlands.
- Remove contained oil with sorbent pads and/or skimmer.

RIVERS & 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.

STORAGE / TRANSFER

- Store closed, labeled containers outside away from flammable items.
- Drums are likely to be used for containing collected hydraulic oil.

DISPOSAL

- Segregate waste types.
- Place contaminated materials into marked containers.
- Consult on Site manager on disposal procedures..

LUBE OIL SPILL RESPONSE ACTIONS
CONSIDER ACTION ONLY IF SAFETY PERMITS
• ELIMINATE IGNITION SOURCES
• STOP SOURCE OF LUBE OIL IF SAFE TO DO SO

ON LAND
• Do not flush into ditches or drainage systems.
• Block entry into waterways and contain with earth, snow or other barrier.
• Remove small spills with sorbent pads.
• On tundra use peat moss and leave to degrade if feasible to do so.

ON SNOW & ICE
• Block entry into waterways and contain with snow or other barrier.
• Remove minor spills with sorbent pads and/or snow.
• Burning is unlikely to be possible.
• Use ice augers and pump when feasible to recover oil under ice.

ON MUSKEG
• Do not deploy personnel and equipment on marsh or vegetation.
• Remove pooled oil with pumps and skimmers.
• Flush with low pressure water to herd oil to collection point.
• Burning is not likely to be possible.
• Minimize damage caused by equipment and excavation.

ON WATER
• Contain spill as close to release point as possible.
• Use spill containment boom to concentrate slicks for recovery.
• On small spills, use sorbent pads to pick up contained oil.
• On larger spills, obtain and use skimmer on contained slicks.
• Do not deploy personnel and equipment on mudflats or wetlands.
• Remove contained oil with sorbent pads and/or skimmer.

RIVERS & 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.

STORAGE / TRANSFER
• Store closed, labeled containers outside away from flammable items.
• Electrically ground containers and vehicles during transfer.

DISPOSAL
• Segregate waste types.
• Place contaminated materials into marked containers.
• Consult Site manager on disposal procedures.

WASTE OIL SPILL RESPONSE ACTIONS
CONSIDER ACTION ONLY IF SAFETY PERMITS
• ELIMINATE IGNITION SOURCES
• STOP SOURCE OF WASTE OIL IF SAFE TO DO SO

ON LAND
• Do not flush into ditches or drainage systems.
• Block entry into waterways and contain with earth, snow or other barrier.
• Remove small spills with sorbent pads.
• On tundra use peat moss and leave to degrade if feasible to do so.

ON SNOW & ICE
• Block entry into waterways and contain with snow or other barrier.
• Remove minor spills with sorbent pads and/or snow.
• Burning is unlikely to be possible.
• Use ice augers and pump when feasible to recover oil under ice.

ON MUSKEG
• Do not deploy personnel and equipment on marsh or vegetation.
• Remove pooled oil with pumps and skimmers.
• Flush with low pressure water to herd oil to collection point.
• Burning is not likely to be possible.
• Minimize damage caused by equipment and excavation.

ON WATER
• Contain spill as close to release point as possible.
• Use spill containment boom to concentrate slicks for recovery.
• On small spills, use sorbent pads to pick up contained oil.
• On larger spills, obtain and use skimmer on contained slicks.
• Do not deploy personnel and equipment on mudflats or wetlands.
• Remove contained oil with sorbent pads and/or skimmer.

RIVERS & STREAMS
• Prevent entry into water, if possible, by building a berm or trench. & Streams
• Intercept moving slicks in quiet areas using (sorbent) booms.
• Do not use sorbent booms/pads in fast currents and turbulent water.

STORAGE / TRANSFER
• Store closed, labeled containers outside away from flammable items.
• Electrically ground containers and vehicles during transfer.

DISPOSAL
• Segregate waste types
• Place contaminated materials into marked containers.
• Whenever possible suitable waste oils collected at the site will be disposed of by incineration.
• Consult Site manager on disposal procedures.

GASOLINE SPILL RESPONSE ACTIONS
CONSIDER ACTION ONLY IF SAFETY PERMITS

GASOLINE FORMS VAPOURS THAT CAN IGNITE AND EXPLODE NO SMOKING

- **ELIMINATE IGNITION SOURCES**
- **STOP SOURCE OF GASOLINE IF SAFE TO DO SO**

ON LAND
- Block entry into waterways by diking with earth, snow or other barrier(s).
- Do not contain spill if there is any chance of igniting vapours.
- On shop floors and in work/depot yards, apply particulate sorbents.
- On tundra use peat moss and leave to degrade if feasible to do so.

ON SNOW & ICE
- Block entry into waterways by diking with snow or other barrier.
- Do not contain spill if there is any chance of igniting vapours.
- In work/depot yards, apply particulate sorbents.

ON MUSKEG
- Remove pooled gasoline with pumps, if safe to do so.
- Do not deploy personnel and equipment on marsh or vegetation.
- Low pressure flushing can be tried to disperse small spills.
- Burn CAREFULLY 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 digging.

ON WATER
- Contain or remove spills ONLY AFTER VAPOURS DISSIPATE.
- Use booms to protect water intakes.
- Skimming can be tried once light ends evaporate.

STORAGE / TRANSFER
- Store closed, labeled containers in cool, ventilated areas away from incompatible materials.
- Electrically ground containers and vehicles during transfer.

DISPOSAL
- Segregate waste types, if necessary.
- Place contaminated materials into marked containers.
- Consult Site manager on transportation and disposal requirements.

JET A & B (AVIATION FUEL) SPILL RESPONSE ACTIONS
CONSIDER ACTION ONLY IF SAFETY PERMITS
AV GAS FORMS VAPOURS THAT CAN IGNITE AND EXPLODE
NO SMOKING

- **ELIMINATE IGNITION SOURCES**
- **STOP SOURCE OF JET A IF SAFE TO DO SO**

ON LAND
- Block entry into waterways by diking with earth, snow or other barrier(s).
- Do not contain spill if there is any chance of igniting vapours.
- On shop floors and in work/depot yards, apply particulate sorbents.
- On tundra use peat moss and leave to degrade if feasible to do so.

ON SNOW & ICE
- Block entry into waterways by diking with snow or other barrier.
- Do not contain spill if there is any chance of igniting vapours.
- In work/depot yards, apply particulate sorbents.

ON MUSKEG
- Remove pooled av gas with pumps, if safe to do so.
- Do not deploy personnel and equipment on marsh or vegetation.
- Low pressure flushing can be tried to disperse small spills.
- Burn CAREFULLY 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 digging.

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- Contain or remove spills ONLY AFTER VAPOURS DISSIPATE.
- Use booms to protect water intakes.
- Skimming can be tried once light ends evaporate.

STORAGE / TRANSFER
- Store closed, labeled containers in cool, ventilated areas away from incompatible materials.
- Electrically ground containers and vehicles during transfer.

DISPOSAL
- Segregate waste types, if necessary.
- Place contaminated materials into marked containers.
- Consult Site manager on transportation and disposal procedures.

PROPANE RESPONSE ACTIONS
GAS STORED IN CYLINDERS THAT EXPLODE WHEN IGNITED!
CONSIDER ACTION ONLY IF SAFETY PERMITS

KEEP ALL VEHICLES INCLUDING SNOWMOBILES AWAY FROM ACCIDENT AREA

Refer to Product Guide in Appendix A for:
- Physical/Chemical Properties
- Response to Fires
- First Aid

- Vapours cannot be contained 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.

- 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 attempt at recovery should be made.

- Personnel should avoid touching release point on containers since frost quickly forms.

- Stay clear of tank ends.

ACETYLENE RESPONSE ACTIONS
GAS STORED IN CYLINDERS THAT EXPLODE WHEN IGNITED!
CONSIDER ACTION ONLY IF SAFETY PERMITS
KEEP ALL VEHICLES INCLUDING SNOWMOBILES AWAY FROM ACCIDENT AREA

Refer to Product Guide in Appendix A for:
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- If tanks are damaged, gas should be allowed to disperse and no attempt at recovery should be made.

- Personnel should avoid touching release point on containers since frost quickly forms.

- Stay clear of tank ends.

SPILL RESPONSE CONTACTS

Agnico-Eagle Mines Limited - Meliadine Gold Project

TITLE	NAME	OFFICE	FAX
On-Scene Coordinators			
Site Manager		1 819 759 3999	
Spill Cleanup Supervisors Meliadine Site		1 819 759 3999	
MELIADINE GOLD PROJECT MANAGER			
	Eric Lamontagne	1 819 860 1693	
Alternate	Sylvain Doire	1 819 759 3700 ext 5186	
	Cell	1 819 279 3192	
Environmental Emergency Contact			
	Stéphane Robert	1 819 759 3700 ext 814	
	Cell	1 819 763 0229	
CONTRACTORS			
M & T Enterprises Ltd. Rankin Inlet		1 867 645 2778	1 867 645 2590
OTHERS			
Nunavut Power Corp. Rankin Inlet		1 867 645 5300	1 867 645 2487.
Rankin Municipality (Senior Administrator)		1 867 645 2895	1 867 645 2146

EXTERNAL CONTACTS

CONTACT THE FOLLOWING NUMBER IMMEDIATELY:

GOVERNMENT 24-HOUR SPILL REPORT LINE	PH. (867) 920-8130 FAX (867) 873-6924

OTHER CONTACTS: PHONE

KIVALLIQ INUIT ASSOCIATION - LAND MANAGEMENT

Tongola Sandy – president	1 867 645 2810
Luis Manzo - land use manager	1 867 645 2810

EMO 1 867 645 5042 (1 867 645 3789 after working hours)

GOVERNMENT OF CANADA

RCMP - Rankin Inlet		1 867 645 2822
AANDC - Rankin Inlet - Henry Kablalik		1 867 645 2831
AANDC – Manager of Field Operations		1 867 975 4295
	Fax	1 867 975 6445
Environment Canada, Iqaluit		1 867 975 4639
Fisheries & Oceans, Rankin Inlet		1 867 645 2871
Iqaluit		1 867 979 6274

LOCAL TRANSPORTATION

Helicopters

CUSTOM HELICOPTERS	Staff House	1 867 645 3885
	Hanger	1 867 645 3939

Air Lines - Scheduled

	First Air - Dispatch	1 867 873 8021
	Calm Air	1 867 645 2900
	Kivalliq Air	1 877 855 1500
Bombardier	Kowmuk's Taxi	1 867 645 3034

Neighbouring Sites	Nunavut Power Corp.- Rankin Inlet	1 867 645 5300
Meadowbank Gold Mine – Stéphane Robert		1 867 759 3700 ext 814

EQUIPMENT SUPPLIERS

Frontier Mining, Yellowknife (spill kits etc)	1 867 920 7617
Acklands – Yellowknife (spill kits etc)	1 867 873 4100

4. DUTIES AND RESPONSIBILITIES

The roles and responsibilities of AEM personnel, contractors, and Government are described on the following pages.

AEM and CONTRACTOR PERSONNEL

Spill Observer - anyone on AWAR
- Assess the initial severity of the spill and safety concerns.
- Report all spills to Meliadine Site manager immediately.
- Determine the source of the spill and stop or contain it, if possible.
- Participate in spill response as member of cleanup crew.

On-Scene Coordinator (OSC) - AEM Meliadine Site Supervisor or Manager
- Immediately reports the spill to NWT 24-Hour Spill Report Line at (403) 920-8130.
- Records the time of the report, source of information and details on location, size, and type of spill as well as any other information available on the spill report form.
- Oversees the cleanup operation until it is satisfactorily completed.
- Together with the Spill Cleanup Supervisor, decides if additional equipment is required to contain and clean up spills.
- Notifies government agencies, AEM Site Manager, AEM Project Manager and Environmental Coordinator on spill details.
- Oversees completion and distribution of Spill Report. Ensures investigation identifies measures to prevent similar spills in future.
- Ensures Response Team is adequately trained in spill response.
- Organizes training courses for spill response teams.

Spill Clean Up Supervisors
- Supervise spill cleanup crew.
- Assist in initial and ongoing response efforts.
- With work crew, take initial action to seal off the source and contain spill.
- Continue actions until relieved or supplemented by other Supervisor.
- Decide with On-Scene Coordinator if mobilization of additional equipment from Spill Response Organization or Contractor is warranted.
- Assess whether burning is a viable clean up measure; consult with regulatory authorities at spill site.

Spill Cleanup Crew (Emergency Response Team)
- conduct cleanup of spills under direction of Spill Cleanup Supervisor(s).
- Deploy booms, sorbents and other equipment and materials as required.
- Take appropriate response measures.
- Continue cleanup as directed by Spill Cleanup Supervisor until relieved.

Project Manager, Meliadine Gold Project
- Responsible for all communication with the media.
- Ensures that all press releases are accurate and in accordance with company policy.
- Makes financial decisions on major expenses during large spill response.

• Initiates Mutual Aid Agreements if proper response requires outside assistance.

Environmental Coordinator

• Provides cleanup advice to the On-Scene Coordinator and Spill Cleanup Supervisor.
• Assists the Project Manager in the preparation of press releases.
• Develops safe and effective spill management and prevention practices.
• Provides advice to the Spill Cleanup Supervisor of storage and disposal options.
• Updates and distributes Spill Contingency Plan.
• Ensures that there are follow up reports prepared on the spill event, clean up and environmental impacts.

5. EXTERNAL RESOURCES - contractors and consultants

AEM Fuel Haul Contractors

- Ensure that their best effort is made to maintain spill equipment which shall be available and be applied to a spill incident on site when required.
- Initiates cleanup in the absence of AEM personnel, however caused.
- Reports all spills immediately to the AEM On-Scene Coordinator (OSC) or Site Manager
- Responsible for the training of their personnel on spill response.
- Develops and maintains company specific contingency plans for the AEM Meliadine Gold Project, which conforms to this AEM Transportation Spill Contingency Plan and related policies.

Environmental Consultants

- Provide advice to AEM on spill response strategies, counter measure technologies, impact assessments and post spill monitoring and site rehabilitation.

Neighbouring Operations

- Supply spill response equipment, materials and manpower, as required, when requested to do so.

EXTERNAL RESOURCES - Kivalliq Inuit Association and Nunavut Water Board

KIA

The Meliadine Gold Project is located on Inuit Owned Land administered and managed by the KIA who has issued land use permits to AEM for the exploration activities. Inspectors from KIA routinely inspect land use sites for compliance to terms and conditions of permits. While KIA receives data from spills reported to the NWT Spill Line, it is expected that all spills on Inuit Owned Land be reported directly to KIA. The same form as used for the Spill Line may be used for reporting to KIA.

Nunavut Water Board

The Nunavut Water Board issues water licenses under the Nunavut Land Claims Agreement and the Nunavut Waters and Nunavut Surface Rights Tribunal Act. Conditions of the water license usually include the authorized limits of water use, sources of water use, effluent discharge limits, monitoring and reporting requirements. As well, licenses require that Spill Contingency Plans be submitted for approval. Enforcement of the provisions of the water license is carried out by Inspectors from the Water Resources Division (Department of Aboriginal Affairs and Northern Development). Periodic inspections are conducted by water license inspectors.

EXTERNAL RESOURCES - GOVERNMENT

Aboriginal Affairs and Northern Development Canada (AANDC)

The Northern Affairs program of AANDC administers the Territorial Lands Act and Regulations. Through this legislation land use permits are issued. One of the conditions of land use permits is the requirement to report all spills to a 24 hour government run report line (403-920-8130). Land Use Permits may also address matters of environmental conservation and protection

including waste disposal, sources of borrow materials, open pit mining, road alignments, land reclamation and closure requirements. Enforcement of the provisions of the land use permits is carried out by the Field Operations Division of AANDC through Resource Management Officers located at the District Offices.

Inspection of AEM project activities located on Crown Land by Resource Management Officers is conducted periodically.

AANDC also inspects facilities having a Water Licence to ensure the terms and conditions are being met, and that the effluent quality of any waste released to the environment meets licence limits.

Environment Canada (EC)

The Environmental Protection and Conservation Service of Environment Canada administers the Canadian Environmental Protection Act (CEPA) and Section 36 of the Fisheries Act. For the latter this specifies that unless authorized by regulation, any effluents discharged into fish bearing water must be non-toxic. EC is responsible for providing environmental advice to federal and territorial government agencies and for the preservation and enhancement of environmental quality.

Department of Fisheries and Oceans (DFO)

The Department of Fisheries and Oceans (DFO) administers the habitat protection provisions of the Fisheries Act. This includes provisions prohibiting the harmful alteration, disruption and destruction of fish habitat unless authorized. DFO applies a Habitat Management Policy whereby the objective is to achieve a no net loss of fish habitat. On occasion, DFO Inspectors visit spill sites to investigate possible impacts to fish habitat.

6. REFERENCES

BHP Diamonds Inc. Transportation Spill Contingency Plan. January 1997.

Department of Transportation. Environmental Guidelines for the Construction, Maintenance and
Closure of Winter Roads in the Northwest Territories. Prepared by Stanley Associates Engineering
Ltd. 1993.

Northwest Territories Water Board. Guidelines for Contingency Planning. 1987.

WMC International Ltd., Emergency Management System Plan, August 2001.

ACKNOWLEDGMENTS

AEM gratefully acknowledges the use of the WMC International Ltd's Emergency Management System Plan, which was based fundamentally on BHP Diamonds Inc. Transportation Spill Contingency Plan.

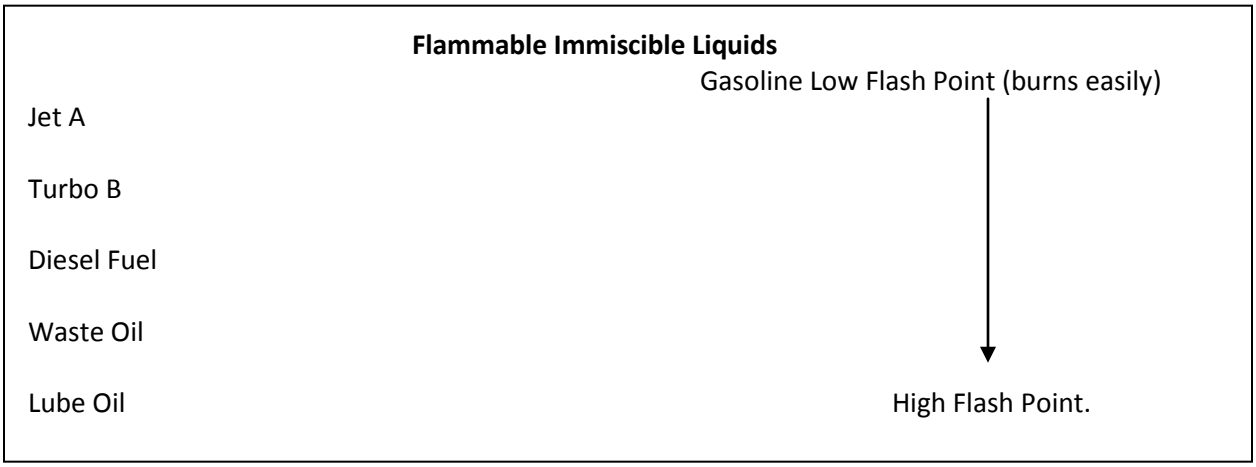
Appendix A PRODUCT GUIDES

The materials included in this Plan can generally be divided into two categories:

- flammable immiscible liquids
- flammable compressed gases

Flammable Immiscible Liquids

These substances are all hydrocarbon-based and will ignite under certain conditions. Gasoline and aviation fuel pose the greatest fire (and safety) hazard and usually cannot be recovered when spilled on water. The remaining materials generally do not pose a hazard at ambient temperatures. They are all insoluble, float unless mixed into the water column and can be recovered when safety allows.



DIESEL

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, yellow or red
ODOUR: Petroleum
SOLUBILITY: Insoluble
VAPOUR GRAVITY: Will sink to ground level
FLASH POINT: 40EC (minimum)
POUR POINT: -50 to -6EC
VISCOSITY: Not viscous
SPECIFIC DENSITY: Floats on water (0.8 - 0.9)

SAFETY MEASURES

WARNINGS

- Vapours are heavier than air and form easily at high temperatures.
- Empty containers can contain explosive vapours.
- Toxic gases form upon combustion.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile, Viton and PVC are suitable materials **(DO NOT USE NATURAL RUBBER or NEOPREN**E.)
- Wear full-face organic vapour cartridge respirator where oxygen is adequate, otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

RESPONSE TO SPILLS
CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND

- **ELIMINATE IGNITION SOURCES.**

- Do not flush into ditch/drainage systems.
- Block entry into waterways.
- Contain spill by diking with earth, snow or other barrier.
- Remove minor spills with peat moss and/or sorbent pads.
- Remove large spills with pumps or vacuum equipment.

ON WATER

- Use booms to contain and concentrate spill.
- Remove spill using sorbent, skimmer or vacuum truck.
- Protection booming can be considered for water intakes.

STORAGE & TRANSFER

- Store closed labelled containers in cool, ventilated areas away from incompatible materials.
- Electrically ground containers and vehicles during transfer.

DISPOSAL

- Segregate waste types.
- Place contaminated materials into marked containers.
- Consult with environmental authorities during final disposal.

FIRST AID

EYES

- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN

- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION

- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION

- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- **Get prompt medical attention.**

HYDRAULIC OIL

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Straw-yellow liquid
ODOUR: Petroleum
SOLUBILITY: Generally insoluble
VAPOUR DENSITY: Few vapours emitted
FLASHPOINT: 215EC
POUR POINT -25EC
VISCOSITY: Medium (265cSt @ 15EC)
SPECIFIC GRAVITY: Floats on water (0.9)

SAFETY MEASURES

WARNINGS

- Vapours are heavier than air but are unlikely to form.
- Toxic gas can form in fire and at high temperatures.
- CO, CO2, and dense smoke are produced upon combustion.
- Oil mist or vapour from hot oil can cause irritation of the eyes, nose, throat and lungs.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; PVC, Nitrile,
  and Viton are suitable materials **(DO NOT USE NATURAL RUBBE**R).
- Use of organic vapour cartridge respirator is highly unlikely.

PRECAUTIONS

- Avoid excessive heat, which can cause formation of vapours.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA and eye protection when responding to fires.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.
  NOTE: Water or foam may cause frothing.
- Use water to cool containers exposed to fire.

RESPONSE TO SPILLS
CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND

- Prevent additional discharge of oil.
- Do not flush into ditch/drainage systems.
- Block entry into waterways.
- Contain spill by diking with earth, snow or other barrier.

- Remove minor spills with peat moss and/or sorbent pads.
- Remove large spills with pumps or vacuum equipment. Spill can also be mechanically removed if oil is too viscous to be pumped.

ON WATER
- Use booms to contain and concentrate spill.
- Remove spill using sorbent, skimmer or vacuum truck.
- Protection booming can be considered for water intakes/marinas.

STORAGE & TRANSFER
- Store closed, labelled containers in cool, ventilated areas away from incompatible materials.

DISPOSAL
- Segregate waste types.
- Place contaminated materials into marked containers.
- Consult with environmental authorities during final disposal.

FIRST AID

EYES
- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN
- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION
- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION
- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

LUBE OIL

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid	FLASHPOINT: 190 to 220EC
ODOUR: Petroleum	POUR POINT: -35 to -400EC
SOLUBILITY: Generally insoluble	VISCOSITY: Medium (255cSt @15EC)
VAPOUR DENSITY: Few vapours emitted	SPECIFIC GRAVITY: Floats on water (0.9)

SAFETY MEASURES

WARNINGS

- Vapours are heavier than air but are unlikely to form.
- Toxic gas can form in fire and at high temperatures.
- CO, CO2, and dense smoke are produced upon combustion.
- Oil mist or vapour from hot oil can cause irritation of the eyes, nose, throat and lungs.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile, PVC and Viton are suitable materials. **(DO NOT USE NATURAL RUBBE**R.)
- Use of organic vapour cartridge respirator is highly unlikely.

PRECAUTIONS

- Avoid excessive heat, which can cause formation of vapours.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA and eye protection when responding to lube oil fires.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.
  NOTE: Water or foam may cause frothing.
- Use water to cool containers exposed to fire.

RESPONSE TO SPILLS
CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND

- Prevent additional discharge of oil.
- Do not flush into ditch/drainage systems.
- Block entry into waterways.
- Contain spill by diking with earth, snow or other barrier.

- Remove minor spills with sorbent and/or peat moss.
- Remove large spills with pumps or vacuum equipment. Spill can also be mechanically removed if oil is too viscous to be pumped.

ON WATER
- Use booms to contain and concentrate spill.
- Remove spill using sorbent, skimmer or vacuum truck.
- Protection booming can be considered for water intakes.

STORAGE & TRANSFER
- Store closed, labelled containers in cool, ventilated areas away from incompatible materials.

DISPOSAL
- Segregate waste types.
- Place contaminated materials into marked containers.
- Consult with environmental authorities during final disposal.

FIRST AID

EYES
- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN
- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION
- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION
- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

WASTE OIL

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Black to brown liquid
ODOUR: Petroleum
SOLUBILITY: Generally insoluble
VAPOUR DENSITY: Few vapours emitted
FLASHPOINT: 100 to 200EC
POUR POINT: -30 to -400EC
VISCOSITY: Medium (200 - 300 cSt)
SPECIFIC GRAVITY: Floats on water (0.9)

SAFETY MEASURES

WARNINGS

- Vapours are heavier than air but are unlikely to form.
- Toxic gas can form in fire and at high temperatures.
- CO, CO2, and dense smoke are produced upon combustion.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile, PVC and Viton are suitable materials **(DO NOT USE NATURAL RUBBER**.)
- Use of organic vapour cartridge respirator is highly unlikely.

PRECAUTIONS

- Avoid excessive heat, which can cause formation of vapours.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA and eye protection when responding to lube oil fires.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.

NOTE: Water or foam may cause frothing.

- Use water to cool containers exposed to fire.

RESPONSE TO SPILLS
CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND

- Prevent additional discharge of oil.
- Do not flush into ditch/drainage systems.
- Block entry into waterways.
- Contain spill by diking with earth, snow or other barrier.
- Remove minor spills with peat moss and/or sorbent pads.

- Remove large spills with pumps or vacuum equipment. Spill can also be mechanically removed if oil is too viscous to be pumped.

ON WATER

- Use booms to contain and concentrate spill.
- Remove spill using sorbent, skimmer or vacuum truck.
- Protection booming can be considered for water intakes.

STORAGE & TRANSFER

- Store closed, labelled containers in cool, ventilated areas away from incompatible materials.

DISPOSAL

- Segregate waste types.
- Place contaminated materials into marked containers.
- Consult with environmental authorities during final disposal.

FIRST AID

EYES

- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN

- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION

- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION

- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

GASOLINE

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless liquid (can be dyed)
ODOUR: Gasoline/Petroleum
SOLUBILITY: Insoluble
VAPOUR DENSITY: Will sink to ground levels - 0.8)
FLASH POINT: -50EC
FREEZING PT: -60EC
VISCOSITY: Not viscous (< 1 cSt)
SPECIFIC GRAVITY: Floats on water (0.7

SAFETY MEASURES

WARNINGS

- **Vapours form instantaneously, and are heavier than air.**
- Empty containers can contain explosive vapours.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile, Viton and PVC are suitable materials **(DO NOT USE NATURAL RUBBER or NEOPRENE**.)
- Wear full-face organic vapour cartridge respirator where oxygen is adequate; otherwise wear positive pressure SCBA, if circumstances warrant.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

RESPONSE TO SPILLS
CONSIDER ACTION ONLY IF SAFETY PERMITS!
ON LAND

- **ELIMINATE IGNITION SOURCES.**
- Do not flush into ditch/drainage systems.

- Block entry into waterways.
- Contain spill by diking with earth, snow or other barrier.
- Remove minor spills with peat moss and/or sorbent pads.
- Cover pools with foam to prevent vapour evolution if gasoline presents a fire hazard; otherwise allow vapours to dissipate.

ON WATER

- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE SPILLS.**
- Protection booming can be considered for water intakes.

STORAGE & TRANSFER

- Store closed, labelled containers in cool, ventilated areas away from incompatible materials.
- Electrically ground containers & vehicles during transfer.

DISPOSAL

- Place contaminated materials into segregated marked containers.
- Consult with environmental authorities during final disposal.

FIRST AID

EYES

- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN

- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION

- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION

- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

JET A

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White or pale yellow liquid	FLASH POINT: -20 to - 250EC
ODOUR: Gasoline/Petroleum	FREEZING PT: -50EC
SOLUBILITY: Negligible	VISCOSITY: Not viscous (<7 cSt)
VAPOUR DENSITY: Will sink to ground levels	SPECIFIC GRAVITY: Floats on water (0.75 0.8)

SAFETY MEASURES

WARNINGS
- Vapours instantaneously form, and are heavier than air.
- Low-lying areas can trap explosive vapours.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION
- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials **(DO NOT USE NATURAL RUBBER, NEOPRENE, OR PVC**).
- Wear full-face organic vapour cartridge respirator where oxygen is adequate; otherwise wear SCBA, if circumstances warrant.

PRECAUTIONS
- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!
- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, AFFF foam or water fog.
- Use water to cool containers exposed to fire.

RESPONSE TO SPILLS
CONSIDER ACTION ONLY IF SAFETY PERMITS!
ON LAND
- **ELIMINATE IGNITION SOURCE**S.
- Block entry into waterways; do not flush into ditch/drain systems.
- Contain spill by diking with earth, snow or other barrier.

• Remove minor spills with sorbent or explosion-proof pump.
• Cover pools with foam to prevent vapour evolution if avgas presents a fire hazard; otherwise allow
vapours to dissipate.

ON WATER
• **ELIMINATE IGNITION SOURCES.**
• **Contain or remove spills ONLY AFTER VAPOURS DISSIPATE.**
• Protection booming can be considered for water intakes.
• Recover slicks using skimmer and sorbent, if volumes warrant.

STORAGE & TRANSFER
• Store closed, labelled containers in cool, ventilated areas away from incompatible materials.
• Electrically ground containers & vehicles during transfer.

DISPOSAL
• Place contaminated materials in segregated, marked containers.
• Consult with environmental authorities during final disposal.

FIRST AID
EYES
• Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
• Remove contact lenses, if exposed to vapours or liquid.
• Get prompt medical attention.

SKIN
• Remove and launder contaminated clothing.
• Wash skin thoroughly with soap and water.
• Get medical attention.
• Discard saturated leather articles.

INHALATION
• Move victim to fresh air.
• Perform artificial respiration if victim not breathing.
• Provide oxygen if victim is having difficulty breathing.
• Get prompt medical attention.

INGESTION
• DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
• Get prompt medical attention.

PROPANE

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless gas	FLASH POINT: -104EC
ODOUR: Natural gas odour	FREEZING PT: -190 EC
SOLUBILITY: Insoluble	VISCOSITY: n/a
VAPOUR DENSITY: Will sink to ground levels	SPECIFIC GRAVITY: Liquid floats on water

SAFETY MEASURES

WARNINGS

- Vapours form instantaneously, and are heavier than air.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials **(DO NOT USE NATURAL RUBBER, NEOPRENE, OR PV**C).
- Avoid frostbite burn to skin and eyes from contact with propane.
- Wear full-face organic vapour cartridge respirator where oxygen is adequate, otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES

CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

RESPONSE TO GAS RELEASES
CONSIDER ACTION ONLY IF SAFETY PERMITS!
ON LAND
- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE SPILLS**

ON WATER
- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE SPILLS.**

STORAGE & TRANSFER
- It is not possible to collect released material.

DISPOSAL
- Consult with environmental authorities if the disposal of any contaminated materials is required.

FIRST AID

EYES
- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN
- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION
- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION
- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention

ACETYLENE

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless gas
ODOUR: Garlic - like
SOLUBILITY: Slightly soluble
VAPOUR DENSITY: Will sink to ground levels
FLASH POINT: -18EC
FREEZING PT: -82EC
VISCOSITY n/a
SPECIFIC GRAVITY: (0.6) Liquid floats on water

SAFETY MEASURES

WARNINGS

- Vapours form instantaneously, and are heavier than air.
- Empty containers can contain explosive vapours.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials **(DO NOT USE NATURAL RUBBER, NEOPRENE, OR PVC**).
- Wear full-face organic vapour cartridge respirator where oxygen is adequate, otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, and peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES

CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

RESPONSE TO GAS RELEASES

CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND

- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE RELEASES ON WATER**
- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE RELEASES**

STORAGE & TRANSFER

- Store closed, labelled containers in cool, ventilated areas away from incompatible materials
- Electrically ground containers & vehicles during transfer.

DISPOSAL

- Consult with environmental authorities if the disposal of any contaminated materials is required.

FIRST AID

EYES

- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN

- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION

- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION

- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

Appendix B RESPONSE EQUIPMENT INVENTORY

During the exploration phase of the project, spills occurring along the transportation route will be remedied by the appropriate personnel depending on the party responsible for the spill, the location of the spill, and the extent of the environmental threat. Larger spills will involve the coordination of AEM personnel (including the Emergency Response Team), contractors, and AEM Mutual Aid Partners. For the purposes of listing response equipment, the equipment will be listed by contractor and site.

Mobile Equipment

From **M and T Enterprises (867 645 2778)**

Equipment *located in Rankin Inlet that can be used for spill countermeasures includes:*

- 1 740 Champion grader
- 1 BW 75 compactor
- 1 Cat 950 loader
- 1 Cat 966 loader
- 1 Cat D5 dozer
- 1 Cat D6D dozer
- 9 tandem dump trucks
- 1 trash pump
- 1 backhoe
- 1 tractor and end dump
- 1 Cat 966 loader
- 1 Cat D3 dozer
- 1 Cat D6E dozer
- 1 Cat D8K dozer
- 1 5000 gal. skid mounted storage tank

From **Nunavut Power Corporation** (645 5300)

Spill equipment available:

- fuel sorbent material
- pumps and hoses
- night operating equipment (portable generator light stand and cords)
- winter clean up equipment (chain saw)
- hand tools (shovels, rakes, wrenches)
- safety equipment

From **Municipality of Rankin Inlet** (645 2525) contact **Fire Department** (645 2895)

Heavy Equipment available:

- portable lighting
- dump truck
- bull dozer
- snow plow
- fire truck.
- front end loader
- backhoe
- grader
- vacuum truck

Mutual Aid Partners

In the event of a major spill requiring additional resources, equipment and manpower will be made available through mutual aid agreements with the Canadian Coast Guard Emergency Response Officer (1 867 874 5559), the Hamlet of Rankin Inlet (1 867 645 2525) and the Nunavut Power Corporation (1 867 645 5300).

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Canadian Coast Guard (CCG) - Rankin Inlet Inventory
Material from the CCG inventory at Rankin INLET is available on a cost recovery basis and will be made available on request to the Nunavut EMO representative who will be billed by CCG for material consumed and who will then recover costs from AEM accordingly.

1500' X 24" oil containment boom
6 boom towing devices
6 5/8" tow lines X 100' c/w snap hooks
6 anchoring devices
6 Danforth anchors (22 lbs)
6 3/8" X 75' trip lines
6 trip line marker buoys type mb40
8 bales disposable boom (8" X 10' X 4 lengths per bale)
9 bales sorbent pads (18" X 18" X 3/8" X 100 pads)
10 sorbent rolls (36" X 150' X 3/8")
5 boxes of oil snare
2 1000 gal. portatanks
1 Spate pump
2 lengths 3" oil resistant suction hose - 50' each.
2 lengths oil resistant discharge hose - 50" each.
1 TDS-118 light medium oil skimmer c/w diesel power pack
1 spare parts kit for TDS-118 skimmer
1 4Kva diesel generator
1 16' aluminum boat
1 25 hp outboard motor
2 3000 psi portable high pressure washers
2 sets portable lights (each set has 3 X 500 watt halogen lamps, spare bulbs, 100" ext. cord and carrying case)
2 coils 1/4" polypropylene rope (1200')
2 coils ½" polypropylene rope (600')
2 coils 5/8" polypropylene rope (600')
72 pair disposable coveralls
120 pair work gloves
12 hard hat liners
40 dust / mist disposable masks
40 pairs assorted rain gear
20 pair safety glasses
20 safety vests
20 pair sunglasses
2 20' steel ISO containers
1 tool box

Appendix C NT -NU SPILL REPORT FORM

Appendix D Basic Contents of Fuel Spill Response Kit

1. Absorbent pads or sheets, socks, and granular material

2. Disposable protective gloves

3. Disposable protective coveralls.

4. Sorbent containment and disposal bags

Appendix E ALL WEATHER ACCESS ROAD ROAD RESUPPLY EQUIPMENT AND CONDITIONS

Terms and Conditions from KIA File KVRW07F02, NIRB File 07AN063 were modified to apply to the All Weather Access Road.

1. The Proponent must **ensure that secondary containment measures are used when transferring fuel** and any hazardous materials from vehicles to storage facilities.
2. The Proponent shall ensure that the transportation contractor for the AWAR has **an appropriate spill kit to address a spill of fuel from a fuel truck delivering fuel to the Meliadine site;**
3. The Proponent shall ensure that the transportation contractor for the AWAR has an **appropriate spill contingency plan** to address the possibility of any spills along the winter road.
4. Speed on winter roads should not exceed: 30 km/hr for fully loaded vehicles; 50 km/hr for empty vehicles
5. Trucks should carry at least 10 square meters of polyethylene material (for lining a trench or depression), a spark-proof shovel and oil absorbent blankets or squares.
6. Trucks should carry reliable radio and /or satellite phone communications
7. Trucks should carry sufficient response equipment for the safe removal of fuel from an overturned tanker (such as hatch cone covers, hoses etc).

In general, AEM and/or its contractors should be fully prepared to deal with spills resulting from vehicle accidents along the road in a timely and efficient manner.

Appendix F CONTINGENCY MEASURES LARGE FUEL SPILL (DIESEL/JET A)

This procedure applies to the bulk fuel tanks and piping associated with the tanks or any release of fuels that exceeds the capacity of the spill kits positioned around the site.

INITIAL RESPONSE PROCEDURE

SAFETY FIRST

1. RESPOND QUICKLY

1. Identify the spilled material.
2. Ensure safety of yourself and others.
3. Shut off ignition sources - NO SMOKING.
4. Attend to Injured.
5. Assess the severity of the spill.
6. Call for assistance.
7. **On-site Manager mobilizes Emergency Response Team**.
   Meliadine Site: 1 819 759 3999
8. Keep unnecessary people out of the area.
9. Wear impervious clothing, goggles, and gloves.
10. Approach spill from upwind **IF SAFE TO DO SO**.
11. Stop product flow if possible.
12. **Contain and recover spill as soon as possible (see below).**
13. Notify Henry Kablalik, Resource Management Officer, Rankin Inlet
    KablalikH@inac-ainc.gc.ca, 867 645 2831,

2. RESPOND SAFELY

1 Do not contain gasoline or aviation fuel if vapours might ignite.
2 Allow gasoline or aviation fuel spills to evaporate.
3 See Spill Response Plan Appendix A - Product Guides for further information.

3. OBTAIN AND REPORT SPILL DETAILS

NT-NU Spill Report Forms are in Appendix C of the TRANSPORTATION SPILL CONTINGENCY PLAN.

Procedure for containing and recovering large amounts of released product.

Any equipment on site can be diverted to help contain and recover a large spill.

Spill on Land

Available Equipment:
Spill kits positioned around site.
Aquadams
Excavating and hauling equipment
Rolls of absorbent matting (Boart Longyear)

- For slow moving spill, use absorbents to begin absorbing spilled product immediately.
- For fast moving spill, divert or allow product to accumulate in natural or constructed depression using aquadams, constructed sumps, constructed berms or constructed trenches.
- Transfer absorbent materials to containers for disposal to waste disposal facility.
- Under safe conditions, ignition of pooled product may be appropriate.
- Excavate impacted soils and place in available land treatment area, instaberms and/or or lined and bermed areas constructed as fuelling stations.

Spill on or Impacting Water

Water impacts are the most serious spills because they can negatively affect water quality and aquatic life.

Available Equipment:
Spill kit absorbents positioned around site.
Boat
Oil-Soaker Booms

The portal site includes 16 – 3 meter oil-soaker booms among its safety equipment. The booms are meant to be deployed in the event of a hydrocarbon spill on water.

- Large impacts to water bodies should immediately be contained using oil-soaker booms and the boat if necessary. The boat can be flown to watershed if necessary. Contained product should be absorbed using available absorbents.
- Maintain booms in place after visible product has been cleaned up to allow remaining product to evaporate.
- Under safe conditions, ignition of floating product may be appropriate.
- In streams the construction of weirs or barriers using available plywood may be appropriate. The weir should be constructed to allow water to flow under and product to accumulate at the water surface. Accumulated product can be collected using available sorbent materials.
- Assess shoreline condition if necessary and apply appropriate clean-up strategy in consultation with consultants and regulators.

Spill on Ice

Available Equipment:
Spill kit absorbents positioned around site.
Rolls of absorbent matting (Boart Longyear)
Shovel and scrapers, bulldozer

Spills on ice are generally the easiest to contain due to the impermeable nature of ice. All attempts must be made to prevent spills from entering ice covered waters as there is no easy method for containment and recovery of such spills.

- Use absorbents to begin absorbing spilled product immediately.
- Scrape ice surface to remove residual product.

Disposal of Materials

In all cases absorbent materials used in the clean-up should be transferred to an approved hazardous waste containers and prepared for transfer to a hazardous waste facility. Soils will be placed in containers.

Appendix G CONSOLIDATION OF SPILL CONTINGENCY PLANNING AND REPORTING REGULATION, SCHEDULE B