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## **SPILL CONTINGENCY PLAN**

### **CHIDLIAK AND ADJOINING QILAQ PROPERTY, AND CUMBERLAND PROSPECTING PERMITS BAFFIN ISLAND, NU, (including both Crown Land and IOL Parcels) PEREGRINE DIAMONDS LTD.**

**Revision 9: 20 September 2011**

## TABLE OF CONTENTS

<b>INTRODUCTION.....</b>	<b>1</b>
<b>BASIC STEPS – SPILL PROCEDURE .....</b>	<b>1</b>
<b>PERMITS AND AUTHORISATIONS .....</b>	<b>2</b>
<b>SPILL-RESPONSE TEAM LEADERS .....</b>	<b>2</b>
<b>FACILITY DESCRIPTION .....</b>	<b>3</b>
<b>TRAINING AND PRACTICE DRILLS .....</b>	<b>4</b>
<b>FUEL SPILLS: RISK ASSESSMENT AND PREVENTIVE MEASURES</b>	<b>4</b>
<b>PRODUCT CATEGORIES .....</b>	<b>10</b>
<b>Flammable Immiscible Liquids .....</b>	<b>10</b>
<b>RESPONSE ORGANISATION .....</b>	<b>11</b>
<b>GENERAL RESPONSIBILITIES .....</b>	<b>12</b>
<b>CONTACT LIST – SPILL RESPONSE/ASSISTANCE .....</b>	<b>15</b>
<b>SPILL RESPONSE ACTIONS: BY PRODUCT.....</b>	<b>16</b>
<b>SPILL PLANNING AND LOGISTICS .....</b>	<b>31</b>
<b>MONITORING SPILLS .....</b>	<b>31</b>
<b>SPILLS ON LAND .....</b>	<b>31</b>
<b>SPILLS ON WATER .....</b>	<b>34</b>
<b>Containment Strategies for Spills on Water.....</b>	<b>34</b>
<b>SPILLS ON SNOW AND ICE .....</b>	<b>37</b>

## LIST OF REVISIONS: ADDENDUM PAGE

Original Plan: 03 January 2008  
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Revision 3: 29 May 2009  
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Revision 9: 20 September 2011

*(NOTE 1: Revisions are identified in the text with a superscript number at the end of the revised or added sentence, phrase or paragraph. Superscript numbers appear as <sup>2</sup>, <sup>3</sup>, <sup>4</sup>, <sup>5</sup>, <sup>6</sup>, <sup>7</sup>, <sup>8</sup> or <sup>9</sup> )*

*(NOTE 2: Revisions denote changes such as programme or date changes, change of phone number, change or addition of personnel, addition of equipment or products, new or adjusted maps and new appendices.)*

## LIST OF TABLES

Table 1	Projected Fuel and Oil Use for 2012 <sup>9</sup> Exploration Activities
Table 2	Contents of Spill Kits – Spring to Autumn 2012 <sup>9</sup>
Table 3	General Response Inventory – Spring/ to Autumn 2012 <sup>9</sup> – Chidliak Property

## LIST OF FIGURES

Figure 1	Updated NWT-Nunavut Spill Report Form
Figure 2	Instructions for Completing the NT-NU Spill Report Form

## LIST OF MAPS<sup>3</sup>

Map 1	Discovery Camp Layout for 2012 <sup>9</sup>
Map 2	Sunrise Camp Layout for 2012 <sup>9</sup>
Map 3	Aurora (Formerly Called North Camp) Layout, September 2011 <sup>9</sup>
Map 4	CH-6 Temporary Camp Layout 2012 <sup>9</sup>
Map 5 <sup>9</sup>	Revised CH-1 Trenching Plan, 2009 (Not Yet Activated) <sup>9</sup>
Map 6a <sup>9</sup>	Provisional Bulk-Sample Drill Plan 2012 <sup>9</sup>
Map 6b <sup>9</sup>	Potential Drillholes for CH-7 and CH-45 Kimberlites in relation to Discovery Camp <sup>9</sup>

## APPENDICES

Appendix A - MATERIAL SAFETY DATA SHEETS (MSDS)  
 Index to contents of sections on Fuels, Fuel Additives, Oil; Drilling Muds, Greases, Lubricants; and Miscellaneous Chemicals<sup>8</sup>  
*(See updated MSDS CD accompanying this application as Appendix 2)*<sup>9</sup>

Appendix B - SPILL RESPONSE: PRACTICE DRILL  
 Record, with photographs, of a Chidliak camp spill-response exercise held 31 August 2011<sup>9</sup>

Appendix C – “Notice of Modification” Letter to Nunavut Water Board regarding Single Event of Blasting which Occurred in July 2010<sup>6</sup>

## INTRODUCTION

The Spill Contingency Plan for “Chidliak and Adjoining Qilaq Property, and Cumberland Prospecting Permits<sup>5</sup>” of Peregrine Diamonds Ltd. (Peregrine), found on the following pages, shall be in effect from the current date (January 2012<sup>9</sup>) until the end of January 2012<sup>9</sup>, and is subject to revision as required. The main activity of the year will be collection of an initial bulk sample<sup>9</sup>, part of a multi-phased sample programme<sup>9</sup>, between mid-February (construction of the CH-6 Temporary Camp)<sup>9</sup> and 01 June<sup>9</sup> when the bulk-sampling of up to 5 kimberlites will be completed.<sup>9</sup> Utilising support initially from Sunrise Camp ice strip to move in a reverse-circulation drill, equipment and startup fuel, the focus will then shift to Discovery Camp, which will be the logistical base and fuel-storage/transfer/refuelling centre for the programme.<sup>9</sup> Exploration by means of core drills already on site may follow the bulk-sampling programme and conclude in September 2012.<sup>9</sup> Discovery camp is to be expanded in February-March to accommodate 40 people; CH-6 Temporary Camp will accommodate 30 to serve drilling of the CH-6 kimberlite.<sup>9</sup> Support services come from Iqaluit, approximately 75km SW<sup>9</sup> of the southwest corner of Chidliak<sup>2</sup>. The Chidliak property is comprised of 852<sup>7</sup> claims located across 18 mapsheets in NTS 26A, 26B, 25O and 25P. Qilaq is comprised of 33<sup>7</sup> Prospecting Permits and Cumberland is comprised of 40<sup>7</sup> Prospecting Permits. This Spill Plan will be in effect for all 3<sup>9</sup> properties<sup>2</sup>, for any sampling or drilling on IOLs, and for helicopter-borne sampling<sup>7</sup> conducted on the new Cumberland Prospecting Permits.<sup>5</sup> It also must be noted that Peregrine properties<sup>2</sup> are remote; no communities are nearby, and thus no persons other than the camp population of Peregrine geologists and geophysicists, geophysical personnel, helicopter pilots, drillers, cook/first-aider (Level II certification or higher), medic, camp managers<sup>2</sup> and attendant(s), environmental/bear monitors<sup>2</sup>, and potentially local assistants for the ground geophysics, environmental<sup>2</sup> and sediment-sampling programmes would be affected in the event of an incident. In the case of the Cumberland Peninsula sampling project, Pangnirtung is only 38km W of the closest point on the Cumberland Project, so special attention will continue to be given to co-ordinating activities with local land-use.<sup>7</sup>

All employees, whether permanent or casual, and programme contractors, are required to be trained in Peregrine procedures, field and wildlife safety, spill and fire procedures and environmental awareness prior to engaging in work at a Peregrine site. Peregrine is keenly aware that planning for an emergency situation is not an option but an obligatory activity, equal in importance to the exploration programme itself. This Contingency Plan will be posted in camp and at each worksite or office of each project<sup>2</sup> and will be distributed to supervisory personnel for dissemination to staff and contractors.

## BASIC STEPS – SPILL PROCEDURE

A spill is classified as the discharge of petroleum products or other dangerous substances into the environment. Potential hazards created by the spill for humans, vegetation, water resources, fish and wildlife vary in severity, depending on several factors, including nature of the material, quantity spilled, location and season. Refer to this Plan<sup>9</sup> for specific response information. The general emergency response to be followed in the event of a spill at the Chidliak Project, the Qilaq Project<sup>4</sup>, adjoining IOLs<sup>2</sup> or the Cumberland Project<sup>5</sup>, is:



*Protect people* - prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion

*Identify the product and its source* - check container design, warning labels, markings, Material Safety Data Sheets, etc., to enable prompt and appropriate response.

*Stop the flow at the source* - reduce or terminate flow of product without endangering anyone

*Assess the seriousness of the spill* - assess potential dangers of the spill to human health and safety, the aquatic environment, wildlife, ground water, vegetation and other land resources.

*Report the spill* – complete a NU Spill Report Form and contact the NU 24-hour Spill Report Line. Provide information on the form to the Environment Canada officer by phone/FAX or e-mail<sup>3</sup>, including location of spill, (company) name of polluter, type and amount of material spilled, date and time of the spill, any perceived threat to human health or the environment, and remedial actions taken and planned.

*Clean up spill* - follow procedures appropriate to location, environment, material, time of year.

*Evaluate and learn* – after the emergency has passed, evaluate the incident and the cleanup with the goal of continuous improvement in prevention and response; train or re-train personnel and ensure a practice incident-and-response drill is held at least once per field season (cf. Appendix - “Spill Response: Practice Drill”).

**24-Hour Spill Report Line: (867) 920-8130 or fax (867) 873-6924**

Environment Canada Enforcement: 24-Hour Emergency Line: (867) 920-8130

AANDC<sup>9</sup> Water Resources Officer (Iqaluit): (867) 975-4298

AANDC<sup>9</sup> Lands Administrator (Iqaluit): (867) 975-4275

AANDC<sup>9</sup> Manager of Field Operations (Iqaluit): (867) 975-4295

## **PERMITS AND AUTHORISATIONS**

The Chidliak and Qilaq<sup>4</sup> properties total over 1.2 million<sup>7</sup> ha; the Cumberland property in 2011 totals 526 728.63 ha<sup>7</sup>. Most of Chidliak-Qilaq is on Crown land, but 8<sup>7</sup> surface parcels of Inuit-Owned Lands (IOLs) intersect the properties at the north, northeast and south<sup>2</sup>. This Spill Plan also will be in effect on any IOL parcels where activity is conducted in 2012<sup>9</sup>, as well as on the Cumberland Prospecting Permits<sup>5</sup>.

Peregrine holds a Class A Land-Use Permit #N2008C0005 from Aboriginal Affairs and Northern Development (AANDC, formerly INAC)<sup>9</sup> and Type B Water Licence #2BE-CHI0813 from the Nunavut Water Board (NWB). Peregrine also holds Qikiqtani Inuit Association (QIA) Land Licence #Q10L1C008<sup>5</sup> to conduct mineral sampling on the adjoining surface IOLs<sup>2</sup> and #Q10L1C014<sup>5</sup> to conduct mineral sampling on IOLs within the Cumberland property.<sup>9</sup>

## **SPILL-RESPONSE TEAM LEADERS**

The following are in charge of the Chidliak sites<sup>3</sup>, in respect of management or control of contaminants.

Peter Holmes, VP – Exploration: (604) 408-8880; 24-hour mobile: (250) 830-4443.

Shirley Standafer-Pfister, Manager, Regulatory and Environmental Affairs<sup>2</sup>:  
(604) 408-8880<sup>3</sup>, (604) 408-8881 (FAX); 24-hour mobile: (250) 686-1769.<sup>3</sup>

Operations Manager: Sunrise camp phone \_\_\_\_\_<sup>9</sup>  
 Discovery \_\_\_\_\_<sup>9</sup>  
 CH-6 Temporary Camp \_\_\_\_\_<sup>9</sup>  
 Aurora Camp \_\_\_\_\_<sup>9</sup> (to be provided, if camp opens)

Project Manager, Al O'Connor<sup>6</sup>: Camp phones (above) or 24-hour mobile: (604) 379-0998.<sup>6</sup>  
 Project Manager-Cumberland – Dave Willis: 24-hour mobile: (604) 836-3284.<sup>8</sup>

Name and address of proponent in charge of the projects<sup>2</sup> noted in this Plan:

Peregrine Diamonds Ltd.  
 Suite 201-1250 Homer Street  
 Vancouver, BC V6B 1C6

## FACILITY DESCRIPTION

Facility – Seasonal tent camps which can accommodate personnel numbers as follows: 24 – Sunrise, 24 – Aurora, 40 – Discovery (after amendment approval) and 30 – CH-6 Temporary Camp (after amendment approval).<sup>9</sup> All have or will have above-ground fuel storage in 205L drums (diesel, Jet-B, petrol/gasoline) and propane in 45kg cylinders. Discovery also will have a Designated Fuel Station where drum fuel will be transferred to enviro-tanks.<sup>9</sup>

Location – Discovery camp and natural-gravel airstrip: 64° 14' 25" N. lat. – 66° 20' 45" W. long.<sup>3</sup> Sunrise camp<sup>2</sup> on unnamed lake to the east: 64° 14' 16" N lat. – 66° 07' 38" W long.<sup>3</sup> New North Camp<sup>6</sup> at: 64° 36' 33" N. lat. – 66° 34' 36" W. long.<sup>5</sup> Fuel: stored on flat, gravel/cobble area at each camp<sup>2</sup>, a safe distance from the tents and well away (>30m) from waterbodies. Large caches<sup>3</sup> and tent drums<sup>6</sup> are bermed in secondary containment.<sup>3</sup>

**Table 1: Projected Fuel and Oil Use for 2012<sup>6</sup> Exploration Activities**

Fuels	No. of Containers	Capacity of Containers
Diesel for drilling, equipment, camps	2000 <sup>9</sup> drums	205L
Aviation turbine fuel (Jet-B)	250 <sup>9</sup> drums	205L
Aviation turbine fuel (Jet-B) – Cumberland <sup>5</sup>	500 drums	205L (if req'd)
Unleaded petrol (gasoline)	20 <sup>9</sup> drums	205L
Propane	65 <sup>9</sup> cylinders	45kg
Oxygen (medical)	3 <sup>9</sup> cylinders	10kg
Oxygen and Acetylene (welding cutting)	4 <sup>9</sup> cylinders (total)	45kg
Oils/lubricants/cleaners	200 <sup>9</sup>	1L to 5L (typical sizes)

Empty drums (crushed) and backhauled<sup>9</sup>, cylinders regularly backhauled.

**Table 2: Contents of Spill Kits – Spring to Autumn 2012<sup>9</sup>**

### **Fuel Cache/Heli Area and Airstrip<sup>3</sup>–Spill-Kit Drums – 1 per Cache<sup>2</sup> and 1 per Airstrip<sup>3</sup>**

1 complete drum kit will be supplied at each fuel cache,<sup>2</sup> at each<sup>9</sup> gravel airstrip, and at each<sup>9</sup> ice airstrip, with (as a minimum) absorbents, socks, disposal bags. (Kits at all<sup>9</sup> camps<sup>5</sup> will contain the following: safety goggles, rubber gloves, absorbents, socks, sealant putty and a plastic disposal bag.)

[Note: On-ice cleanup measures are discussed on Pages 37-38].

Auxiliary kits (e.g., approximately 130L-136L size) will be deployed around cache areas, as required.<sup>2</sup>  
<sup>3</sup>

### **Camps – Spill-Kit Drums – 1 (Full Size)<sup>6</sup> per Camp (as a Minimum) plus 5 Kits at Discovery<sup>9</sup>**

Location: Stationed at gen-shed in camp, but can be deployed where required: 1 complete drum kit will be supplied with (as a minimum) absorbents, socks, disposal bags. (Kits at all<sup>9</sup> camps<sup>5</sup> will contain the following: safety goggles, rubber gloves, absorbents, socks, sealant putty and a plastic disposal bag.) **NOTE: *Discovery Camp Designated Fuel Station* will have 5 spill kits, as well as extra absorbents and other response items (cf. Map 1 below).**<sup>9</sup>

### **RC Drill and<sup>9</sup> Core Drillshack – Spill-Kit Drums – 1 per Drillsite<sup>6</sup>**

### **Trenching Site – Spill-Kit Drums – 1<sup>2</sup> (if trenching were to occur)<sup>4</sup>**

### **Fuel Cache (on Land) proximal to Lake-Based Drillsite – Spill-Kit Drums – 1<sup>4</sup>**

Location: Moves with drillshack<sup>2</sup> or cache: 1 complete drum kit will be supplied with (as a minimum) absorbents, socks, disposal bags, whether the hole is land-based or ice-based.<sup>3</sup>

At all locations, additional bundles of absorbents will be present in addition to the spill kits.

### **Table 3: General Response Inventory – Spring to Autumn 2012<sup>9</sup> – Chidliak Property**

- Fire extinguishers (valid/recharged) in each structure: Tents, sheds.
- Water pump and spare at camp; hoses and fittings
- Hammers, assorted weights, at core shack or storage shed<sup>2</sup>
- Cat 247B2 Multi-Terrain Loader (to move drums or other loads)<sup>3</sup> and Kubota Sub-Tractor (for snow-clearing on lakes)<sup>6</sup> Cat 930 loader (brought in for bulk sample) (to move drums or other loads)<sup>9</sup>
- Assorted 10L-20L plastic pails; galvanised metal pails (approx. 10L each)
- Ice auger (gas-powered) c/w extensions (for spring conditions)
- 121L plastic garbage bags (boxes of 20 each) – kitchen and latrine
- Plastic tarps – assorted sizes
- Extra bundles of absorbents
- Fuel-transfer pump and spare at each<sup>2</sup> camp
- Refuge drums (empty drums for containing spilt substances).

### **TRAINING AND PRACTICE DRILLS**

All members of the programme response team – as well as members of the general team, such as the Regulatory/Environment Manager<sup>2</sup> and the Expeditor – will be familiar with the spill-response resources at the worksites (including their location and how to access them), this Spill Plan, and appropriate spill-response methods. Involvement of other personnel may be required, from time to time. This familiarity will be acquired through:

1. Initial or refresher training (practice drills), as appropriate, provided once per field season (cf. *Appendix - “Spill Response: Practice Drill”*).
2. Regular inventory updates, provided in list form to all team members. Information to be reported includes listing of resources, number of items and locations, condition, date of last inspection and any comments (e.g., expiry dates, under whose authority they may be accessed and special handling instructions, if any).

### **FUEL SPILLS: RISK ASSESSMENT AND PREVENTIVE MEASURES**



The possibility of a fuel spill on Peregrine projects will vary, depending on a number of factors, including human error, mechanical failure, route conditions, weather.

#### Risk Assessment & Preventative Measures

POTENTIAL PROBLEM	IMPACT	PROBABILITY	PREVENTATIVE MEASURES
Diesel or Oil Major leak from drums	High	Low	Training/refresher training for site personnel who handle fuels. Daily inspections and monitoring will take place during the programme by designated site personnel. Placement of drums in a suitable area (e.g., depression, vegetation-free and boulder-free), with natural drainage pattern away from water, and the required setback from shoreline. Berming with peat bales or snow. Secure drums in use on proper stands or racks.
A spill from a valve left open or a break in a transfer hose.	High	Moderate	Daily inspections to ensure all valves are either closed (when not needed), or that a catch pail is installed beneath valves, e.g., at tents, drillshacks, or that an enviro-tainer is in use. Fuel transfer hoses will have a double locking mechanism and undergo daily inspection as part of the routine work cycle, to check for soundness and wear. Markers around all fuel transfer lines.
Pump Failure	Low	Low	Pumps are to be inspected weekly and - serviced monthly.

### Risk Assessment & Preventative Measures (cont.)

POTENTIAL PROBLEM	IMPACT	PROBABILITY	PREVENTATIVE MEASURES
Diesel or Oil Major leak from drums	High	Low	Training/refresher training for site personnel who handle fuels. Daily inspections and monitoring will take place during the programme by designated site personnel. Placement of drums in a suitable area (e.g., depression, vegetation-free and boulder-free), with natural drainage pattern away from water, and the required setback from shoreline. Berming with peat bales or snow. Secure drums in use on proper stands or racks.
A spill from a valve left open or a break in a transfer hose.	High	Moderate	Daily inspections to ensure all valves are either closed (when not needed), or that a catch pail is installed beneath valves, e.g., at tents, drillshacks, or that an enviro-tainer is in use. Fuel transfer hoses will have a double locking mechanism and undergo daily inspection as part of the routine work cycle, to check for soundness and wear. Markers around all fuel transfer lines.
Pump Failure	Low	Low	Pumps are to be inspected weekly and - serviced monthly.
Power Outages	Low	Low	In case of gen-set failure/power loss, any refuelling or maintenance under way in the gen-shed will cease immediately and the spare gen-set will be brought on line before refuelling or maintenance resumes.
Broken Or Blocked Drill Sludge Lines	Low	Moderate	Lines are inspected daily as part of the routine work cycle.

### Risk Assessment & Preventative Measures (cont.)

POTENTIAL PROBLEM	IMPACT	PROBABILITY	PREVENTATIVE MEASURES
Chemical Spills	Low – High	Low	<p>Training in the handling of chemicals will take place to ensure safe handling.</p> <p>Chemicals will be stored in their original labelled drums, bottles, canisters or packages.</p> <p>Chemicals will be stored in such a way as to protect from the weather or spillage, and be in non-reactive trays, underlain with liner material or absorbents to prevent chemicals coming into contact with soil or tent floors.</p> <p>Regular inspections will take place of stored chemicals.</p> <p>Inventory controls in place.</p>
Gases (oxygen, acetylene, propane, argon, carbon dioxide)			<p>Training/refreshers training for site personnel who handle gases.</p> <p>Stored in designated areas until required, secured upright.</p> <p>Daily checks of cylinders in use, including gas-detector monitoring, as necessary.</p>

FIGURE 1: Updated NWT-Nunavut Spill Report Form

Northwest Territories		Nunavut		Canada		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	
<b>REPORT LINE USE ONLY</b>											
A	REPORT DATE: MONTH – DAY – YEAR				REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER		
B	OCCURRENCE DATE: MONTH – DAY – YEAR				OCCURRENCE TIME		<input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT				
C	LAND USE PERMIT NUMBER (IF APPLICABLE)				WATER LICENCE NUMBER (IF APPLICABLE)						
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM THE NAMED LOCATION						REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR				
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	
<b>REPORT LINE USE ONLY</b>											
N	RECEIVED AT SPILL LINE BY			POSITION <b>Station operator</b>		EMPLOYER		LOCATION CALLED <b>Yellowknife, NT</b>		REPORT LINE NUMBER <b>(867) 920-8130</b>	
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC						SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN			FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED		
AGENCY		CONTACT NAME				CONTACT TIME		REMARKS			
LEAD AGENCY											
FIRST SUPPORT AGENCY											
SECOND SUPPORT AGENCY											
THIRD SUPPORT AGENCY											

**FIGURE 2: Instructions for Completing the NT-NU Spill Report Form**

Instructions for Completing the NT-NU Spill Report Form	
<p>This form can be filled out electronically and e-mailed as an attachment to <a href="mailto:spills@gov.nt.ca">spills@gov.nt.ca</a>. Until further notice, please verify receipt of e-mail transmissions with a follow-up telephone call to the spill line. Forms can also be printed and faxed to the spill line at 867-873-6924. Spills can still be phoned in by calling collect at 867-920-8130.</p>	
<b>A. Report Date/Time</b>	The actual date and time that the spill was reported to the spill line. If the spill is phoned in, the Spill Line will fill this out. <b>Please do not fill in the Report Number:</b> the spill line will assign a number after the spill is reported.
<b>B. Occurrence Date/Time</b>	Indicate, to the best of your knowledge, the exact date and time that the spill occurred. Not to be confused with the report date and time (see above).
<b>C. Land Use Permit Number /Water Licence Number</b>	This only needs to be filled in if the activity has been licenced by the Nunavut Water Board and/or if a Land Use Permit has been issued. Applies primarily to mines and mineral exploration sites.
<b>D. Geographic Place Name</b>	In most cases, this will be the name of the city or town in which the spill occurred. For remote locations – outside of human habitations – identify the most prominent geographic feature, such as a lake or mountain and/or the distance and direction from the nearest population center. <b>You must include the geographic coordinates</b> (Refer to Section E).
<b>E. Geographic Coordinates</b>	This only needs to be filled out if the spill occurred outside of an established community such as a mine site. Please note that the location should be stated in degrees, minutes and seconds of Latitude and Longitude.
<b>F. Responsible Party Or Vessel Name</b>	This is the person who was in management/control/ownership of the substance at the time that it was spilled. In the case of a spill from a ship/vessel, include the name of the ship/vessel. Please include full address, telephone number and e-mail. Use box K if there is insufficient space. <b>Please note that, the owner of the spilled substance is ultimately responsible for any spills of that substance, regardless of who may have actually caused the spill.</b>
<b>G. Contractor involved?</b>	Were there any other parties/contractors involved? An example would be a construction company who is undertaking work on behalf of the owner of the spilled substance and who may have contributed to, or directly caused the spill and/or is responding to the spill.
<b>H. Product Spilled</b>	Identify the product spilled; most commonly, it is gasoline, diesel fuel or sewage. For other substances, avoid trade names. Wherever possible, use the chemical name of the substance and further, identify the product using the four digit UN number (eg: UN1203 for gasoline; UN1202 for diesel fuel; UN1863 for Jet A & B)
<b>I. Spill Source</b>	Identify the source of the spill: truck, ship, home heating fuel tank and, if known, the cause (eg: fuel tank overflow, leaking tank; ship ran aground; traffic accident, vandalism, storm, etc.). Provide an estimate of the extent of the contaminated/impacted area (eg: 10 m <sup>2</sup> )
<b>J. Factors Affecting Spill</b>	Any factors which might make it difficult to clean up the spill: rough terrain, bad weather, remote location, lack of equipment. Do you require advice and/or assistance with the cleanup operation? Identify any hazards to persons, property or environment: for example, a gasoline spill beside a daycare centre would pose a safety hazard to children. Use box K if there is insufficient space.
<b>K. Additional Information</b>	Provide any additional, pertinent details about the spill, such as any peculiar/unique hazards associated with the spilled material. State what action is being taken towards cleaning up the spill; disposal of spilled material; notification of affected parties. If necessary, append additional sheets to the spill report. Number the pages in the same format found in the lower right hand corner of the spill form: eg. "Page 1 of 2", "Page 2 of 2" etc. <b>Please number the pages to ensure that recipients can be certain that they received all pertinent documents.</b> If only the spill report form was filled out, number the form as "Page 1 of 1".
<b>L. Reported to Spill Line by</b>	Include your full name, employer, contact number and the location from which you are reporting the spill. Use box K if there is insufficient space.
<b>M. Alternate Contact</b>	Identify any alternate contacts. This information assists regulatory agencies to obtain additional information if they cannot reach the individual who reported the spill.
<b>N. Report Line Use Only</b>	<b>Leave Blank.</b> This box is for the <b>Spill Line's</b> use only.

## PRODUCT CATEGORIES

The materials in this Spill Contingency Plan are generally divided into five categories:

- Flammable Immiscible Liquids
- Soluble Solids/Oxidisers
- Flammable Compressed Gases
- Soluble Liquids
- Toxic Solids

### Flammable Immiscible Liquids

These substances are all hydrocarbon-based and will ignite under certain conditions.

Petrol (gasoline) and aviation fuels pose the greatest fire and safety hazard and are not recoverable when spilled on water.

### Action Plan Steps

Confirm that a spill has occurred. It may not be obvious if a spill has occurred - look for:

- pooled liquid.
- damage to equipment/tanks.
- smell of fuel or chemicals and
- leaks from hatches, valves or other fixtures

### Assess the Situation

Before initiating response actions, take the time to determine the nature of a spill and to collect some or all of following facts:

- potential risk of fire, explosion and environmental damage.
- extent of injuries to co-workers or the public.
- source and approximate size of the spill.
- possible methods to stop the flow of product; and
- proximity to water.

### Take Action

- Eliminate ignition source(s) if safe to do so.
- Shut off spill source if safe to do so.
- Attend to any injured persons.
- Restrict personnel to the spill site using barriers or marker tape.
- Warn others in the area of the spill.
- Use an explosion meter to monitor atmospheric gas concentrations.
- Report spill to Peregrine management.
- Transport Spill Kit to the spill site.
- Control spreading and minimise impacts.

### **Spill Containment and Recovery**

Special care should be taken to ensure that spilled material does not reach waterbodies where recovery is more difficult. Ice augers (under appropriate conditions) can be effective in terms of locating and exposing oil for burning or pumping off.

### **Waste Disposal**

At the Chidliak camps<sup>2</sup>, all combustibles will be incinerated on a daily basis. This includes food scraps, office garbage, etc.

Non-hazardous solid “inert” waste generated (*i.e.*, scrap metal, pipe, wood, plastics, liners, Styrofoam) will be transported off site for disposal according to its nature.

All hazardous wastes and waste items that cannot be incinerated (including items which might be present at a remote fuel cache) are securely packaged, flown out on aircraft backhauls, and disposed of in designated locations off-site.

Prior to disposal, the hazardous waste will be properly packaged, labelled, and stored and manifested in a Transportation of Dangerous Goods (TDG) approved shipping container. (Peregrine’s government-issued waste generator number for Nunavut projects will be written on manifests accompanying outbound waste shipments<sup>2</sup>).

The container will have the appropriate hazardous waste labels.

All Federal and Territorial regulations will be adhered to.

### **Used Container Disposal**

To ensure the proper disposal of used containers that have contacted, collected or contained a hazardous or regulated substance (*e.g.*, paint cans, oil cans, acid containers, aerosol cans).

Containers having contacted, collected or contained an acute hazardous material, corrosive or reactive substance will be triple washed with water prior to disposal. (Contaminated wash-water can report to labelled refuge drums).

Metal containers can be disposed of as scrap metal and flown off-site for disposal. Any free liquid in the container will be disposed of properly, and the residual material allowed to dry or solidify.

### **Used Drum Disposal**

The majority of used fuel drums (205L) for Jet-B fuel, diesel<sup>2</sup> and unleaded petrol are returned to the supplier for refund or crushed<sup>5</sup>. However, during operations, some drums will be set aside for usage as refuge drums, for storage of other “used” products (*i.e.*, used glycol, used oil, spilt materials, oil filters, *etc.*). These drums will be properly labelled and stored prior to acceptable removal and disposal, usually off-site at an approved facility.

### **RESPONSE ORGANISATION**

On rare occasions, additional company and outside resources may need to be brought in to support the spill cleanup. For a major incident, the Project Manager (*cf. Page 3*) in co-operation with<sup>2</sup> the Project Manager – Operations<sup>3</sup> or the specific Project Manager, if not Chidliak<sup>5</sup>, would mobilise Peregrine, contractor (emergency remedial responder in Iqaluit is Nunatta Environmental Services)<sup>9</sup> and outside expertise for the response.



## **GENERAL RESPONSIBILITIES**

The following provides a general guide to the Spill Response Organisation responsibilities. In some cases, certain Peregrine personnel may fill dual roles, depending upon the circumstances of the incident.

In most incidents, the Site Supervisor, working with the site Spill Response Team, will handle the initial response, containment and cleanup. In larger incidents, Peregrine management will play a more active role. In all cases, Peregrine management will be notified immediately of a spill and will be responsible for notifying the 24-hour Spill Line or assigning this task to a designate.

Other contractors and specialists may be brought in to assist in response to a major incident.

### **Individual Discovering Incident**

- ▣ Assess the initial severity of the spill and safety concerns.
- ▣ Identify the source of the spill
- ▣ Report all spills to Supervisor.
- ▣ Determine the size of the spill and stop or contain it, if possible.

### **Spill Response Team**

- ▣ Conduct the cleanup of spills under the direction of the Supervisor.
- ▣ Deploy booms, absorbents and other equipment and materials as required.
- ▣ Take appropriate response measures.
- ▣ Continue the cleanup as directed by the Supervisor or until relieved.

### **Supervisor**

- ▣ Assist in initial and ongoing response efforts.
- ▣ Supervise the Spill Response Team.
- ▣ With work crew, take initial action to seal off the source and contain spill.
- ▣ Decide with Peregrine management if mobilisation of additional equipment is required.
- ▣ Assess whether burning is a viable cleanup measure. Consult Peregrine's emergency spill-response contractor or environmental consultant in completing this assessment.<sup>7</sup>
- ▣ Ensure co-ordination of equipment and manpower as needed (Peregrine and contractors)
- ▣ Ensure expeditious response and cleanup of the spill site and impacted area.

## **Additional Resources – Support Team to the Spill-Response Team**





- ▣ Provide assistance to Supervisor as required.
- ▣ Responsible for mobilising additional Peregrine support staff, security and other contractors as required.

### **Peregrine Management**

- ▣ Records the time of the report, source of information and details on location, size, type of spill and any other information available on the Spill Report Form.
- ▣ Ensures that the spill is reported to the Nunavut 24-Hour Spill Report Line.
- ▣ Oversees or directs the cleanup operation until it is satisfactorily completed.
- ▣ Together with the Supervisor, decides if additional equipment is required to contain and clean up spills.
- ▣ Maintains contact with Supervisor to ensure final inspection and sign-off on the spill.
- ▣ Notifies internal company departments.
- ▣ Initiates Mutual Aid Agreements if so required.
- ▣ Oversees completion and distribution of the Spill Report.

- ▣ Ensures investigation identifies measures to prevent similar spills.
- ▣ Provides cleanup advice to the Supervisor.
- ▣ Assists with preparation of press releases.
- ▣ Provides advice on storage and disposal options.
- ▣ Ensures that there are followup reports prepared on the spill event, cleanup and environmental impacts.
- ▣ Takes action, as necessary, to prevent a recurrence.
- ▣ Liaises with government agencies (as required)

### **Response Resources**

A wide variety of spill control/recovery equipment and material exists for dealing with spills of petroleum products and chemical reagents (*cf. Page 4*).

### **Response Equipment Deployment**

All equipment is stored in such a manner as to be readily available on short notice.

The Supervisor would immediately respond to a reported spill site by notifying site personnel to move into place material necessary to provide control and cleanup (e.g., shovels, refuge drums, tarps, etc.). Emergency spill containment and recovery materials and supplies will be available on site for immediate mobilisation at any time. (In the case of the Qilaq Project<sup>2</sup> or activity on IOLs, or the Cumberland sampling project<sup>5</sup> where there is no associated camp, a fully-equipped spill kit will be positioned at an easily-accessible central point or fuel cache within the programme area<sup>2</sup>).

## CONTACT LIST – SPILL RESPONSE/ASSISTANCE

**Mobile Emergency Spill Response – Nunatta Environmental Services Inc., Iqaluit (NTI-registered company)** <sup>7</sup> [nunatta@northwestel.net](mailto:nunatta@northwestel.net)

Axel Have (867) 979-1488 (during business, after hours)  
Jim Wilson (same)

**Qikiqtaaluk Corporation Expediting/Logistics** qc@nunavut.com (867) 222-1020 <sup>3</sup>  
(867) 979-8433 (FAX)

**Discovery Mining Services** <sup>3</sup> [logistics@pdiam.com](mailto:logistics@pdiam.com) (867) 445-1644 (24 hours) <sup>3</sup>  
(867) 222-3630 (Iqaluit mobile)

**Environment Canada** 24-hour line (867) 766-3737

**Manager, Field Operations** <sup>4</sup>, **Aboriginal Affairs and Northern Development (AANDC)** <sup>9</sup>  
Nunavut (Iqaluit Office) (867) 975-4295 <sup>4</sup>  
(867) 975-6445 (FAX)

**Water Res. Officer AANDC (Iqaluit)** <sup>9</sup> (867) 975-4298

**RCMP, Iqaluit detachment** Emergencies only: (867) 979-1111

**RCMP, Pangnirtung detachment** Emergencies only: (867) 473-4111

**Iqaluit Fire Department** (867) 979-4422  
(emergency)

**24-hour spill line: (867) 920-8130 <sup>2</sup> [spills@gov.nt.ca](mailto:spills@gov.nt.ca) <sup>2</sup>**

**Qikiqtani Inuit Association** Iqaluit Office (867) 979-5391

**Environ. Conserv. Officer** GN-DOE- Iqaluit Office (867) 975-7700  
**Workers' Safety and Compensation Commission** <sup>9</sup> **Board –Occupational Health and Safety (Iqaluit Office)** (877) 404-4407

**Workers' Safety and Compensation Commission** <sup>9</sup> **Board-Exploration Site Accident Reports** (800) 661-0792 (24hr)

## SPILL RESPONSE ACTIONS: BY PRODUCT

At the Peregrine projects under this Plan<sup>2</sup>, “safety first” is the abiding principle which will guide response: Spills and products are to be handled as/if safety permits.

After adequate safety precautions, effort will be concentrated on stopping or eliminating the source of ignition.

### Diesel

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p>APPEARANCE: Clear, Yellow or Red FLASH POINT: 40°C (Minimum)          ODOUR: Petroleum POUR POINT: -50° to -6°C          SOLUBILITY: Insoluble VISCOSITY: Not Viscous          VAPOUR DENSITY: Will Sink to Ground Levels SPECIFIC GRAVITY: Floats on Water (0.8 – 0.9)</p>	
SAFETY MEASURES	
WARNING	<p>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.</p>
PERSONAL PROTECTION	<p>Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile 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.</p>
PRECAUTIONS	<p>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.</p>

RESPONSE TO FIRES	
CONSIDER ACTION ONLY IF SAFETY PERMITS!	Wear SCBA in confined areas. Shut off fuel supply. Extinguish fire with CO <sub>2</sub> , dry chemical, and alcohol foam or water fog. Use water to cool containers exposed to fire.

## Hydraulic Oil

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p>APPEARANCE: Straw-Yellow Liquid    FLASH POINT: 215°C (Minimum)          ODOUR: Petroleum    POUR POINT: -25°C          SOLUBILITY: Generally Insoluble    VISCOSITY: Medium (265 x ST, 15°C)          VAPOUR DENSITY: Few Vapours Emitted    SPECIFIC GRAVITY: Floats on Water (0.9)</p>	
SAFETY MEASURES	
WARNING	Vapours are heavier than air but are unlikely to form. Toxic gas can form in fire and at high temperatures. CO, CO <sub>2</sub> , 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 RUBBER). Use of organic vapour cartridge respirator is highly unlikely.
PRECAUTIONS	Avoid excessive heat, which can cause formation of vapours. Avoid contact with strong oxidisers, 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 CO <sub>2</sub> , dry chemical, alcohol, foam or water fog. NOTE: water or foam may cause frothing. Use water to cool containers exposed to fire.

## Lubricating Oil

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p>APPEARANCE: Amber Liquid FLASH POINT: 190° to 2220°C          ODOUR: Petroleum POUR POINT: -35° to -40°C          SOLUBILITY: Generally Insoluble VISCOSITY: Medium (255 xST, 15°C)          VAPOUR DENSITY: Few Vapours Emitted SPECIFIC GRAVITY: Floats on Water (0.9)</p>	
SAFETY MEASURES	
WARNING	Vapours are heavier than air but are unlikely to form. Toxic gas can form in fire and at high temperatures. CO, CO <sub>2</sub> , 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 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 CO <sub>2</sub> , dry chemical, alcohol foam or water fog. NOTE: water or foam may cause frothing. Use water to cool containers, exposed to fire.
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 absorbent 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 absorbents or skimmer. Protection booming can be considered for water intakes.
STORAGE & TRANSFER	Store closed, labelled containers in cool, and 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 CPR 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

ON LAND	<p>Prevent additional discharge of oil.</p> <p>Do not flush into ditch/drainage systems.</p> <p>Block entry into waterways.</p> <p>Contain spill by diking with earth, snow or other barrier.</p> <p>Remove minor spills with absorbent pads and/or peat moss.</p> <p>Remove large spills with pumps or vacuum equipment.</p> <p>Spill can also be mechanically removed if oil is too viscous to be pumped.</p>
ON WATER	<p>Use booms to contain and concentrate spill.</p> <p>Remove spill using absorbents or skimmer.</p> <p>Protection booming can be considered for water intakes.</p>
STORAGE & TRANSFER	<p>Store closed, labelled containers in cool, ventilated areas away from incompatible materials.</p>
DISPOSAL	<p>Segregate waste types.</p> <p>Place contaminated materials into marked containers.</p> <p>Consult with environmental authorities during final disposal.</p>
FIRST AID	
EYES	<p>Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes, while holding the eyelids open.</p> <p>Remove contact lenses, if exposed to vapours or liquid.</p> <p>Get prompt medical attention.</p>
SKIN	<p>Remove and launder contaminated clothing.</p> <p>Wash skin thoroughly with soap and water.</p> <p>Get medical attention.</p> <p>Discard saturated leather articles.</p>
INHALATION	<p>Move victim to fresh air.</p> <p>Perform CPR if victim not breathing.</p> <p>Provide oxygen if victim is having difficulty breathing.</p> <p>Get prompt medical attention.</p>
INGESTION	<p>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.</p> <p>Get prompt medical attention.</p>



## Petrol (Unleaded Gasoline)

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p>APPEARANCE: Colourless Liquid (Can Be Dyed) FLASH POINT: -50°C            ODOUR: Gasoline/Petroleum POUR POINT: -60°C            SOLUBILITY: Insoluble VISCOSITY: Not Viscous (&lt;1 cSt)            VAPOUR DENSITY: Will Sink to Ground Level SPECIFIC GRAVITY: Floats on Water (0.7 - 0.8)</p>	
SAFETY MEASURES	
WARNING	<p>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.</p>
PERSONAL PROTECTION	<p>Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; PVC, Nitrile, and 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.</p>
PRECAUTIONS	<p>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.</p>
RESPONSE TO FIRES	
CONSIDER ACTION ONLY IF SAFETY PERMITS!	<p>Wear SCBA in confined areas.            Shut off fuel supply.            Extinguish fire with CO<sub>2</sub>, dry chemical, alcohol foam or water fog.            Use water to cool containers, exposed to fire.</p>

ON LAND	<p>ELIMINATE IGNITION SOURCES.</p> <p>Do not flush into ditch/drainage systems.</p> <p>Block entry into waterways.</p> <p>Contain spill by diking with earth, snow or other barrier.</p> <p>Remove minor spills with peat moss and/or absorbent pads.</p> <p>Cover pools with foam to prevent vapour evolution if gasoline presents a fire hazard; otherwise allow vapours to dissipate.</p>
ON WATER	<p>ELIMINATE IGNITION SOURCES.</p> <p>DO NOT ATTEMPT TO CONTAIN OR REMOVE SPILLS.</p> <p>Protection booming can be considered for water intakes.</p>
STORAGE & TRANSFER	<p>Store closed, labelled container in cool, ventilated areas away from incompatible materials.</p> <p>Electrically ground containers and vehicles during transfer.</p>
DISPOSAL	<p>Place contaminated materials into segregated marked containers.</p> <p>Consult with environmental authorities during final disposal.</p>
FIRST AID	
EYES	<p>Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes, while holding the eyelids open.</p> <p>Remove contact lenses, if exposed to vapours or liquid.</p> <p>Get prompt medical attention.</p>
SKIN	<p>Remove and launder contaminated clothing.</p> <p>Wash skin thoroughly with soap and water.</p> <p>Get medical attention.</p> <p>Discard saturated leather articles.</p>
INHALATION	<p>Move victim to fresh air.</p> <p>Perform CPR if victim not breathing.</p> <p>Provide oxygen if victim is having difficulty breathing.</p> <p>Get prompt medical attention.</p>
INGESTION	<p>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.</p> <p>Get prompt medical attention.</p>

## Jet-B (JP-4) OR Jet-A Fuel

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p>APPEARANCE: White or Pale Yellow Liquid    FLASH POINT: -20°C to -25°C          ODOUR: Gasoline/Petroleum    POUR POINT: -50°C          SOLUBILITY: Negligible    VISCOSITY: Not Viscous (&lt;7 cSt)          VAPOUR DENSITY: Will Sink to Ground Level    SPECIFIC GRAVITY: Floats on Water (0.75 - 0.8)</p>	
SAFETY MEASURES	
WARNING	<p>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.</p>
PERSONAL PROTECTION	<p>Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; PVC, Nitrile, and 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.</p>
PRECAUTIONS	<p>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.</p>
RESPONSE TO FIRES	
CONSIDER ACTION ONLY IF SAFETY PERMITS!	<p>Wear SCBA in confined areas.          Shut off fuel supply.          Extinguish fire with CO<sub>2</sub>, dry chemical, alcohol foam or water fog.          Use water to cool containers, exposed to fire.</p>

ON LAND	<p>ELIMINATE IGNITION SOURCES.</p> <p>Do not flush into ditch/drainage systems.</p> <p>Block entry into waterways.</p> <p>Contain spill by diking with earth, snow or other barrier.</p> <p>Remove minor spills with peat moss and/or absorbent pads.</p> <p>Cover pools with foam to prevent vapour evolution if gasoline presents a fire hazard; otherwise allow vapours to dissipate.</p>
ON WATER	<p>ELIMINATE IGNITION SOURCES.</p> <p>DO NOT ATTEMPT TO CONTAIN OR REMOVE SPILLS.</p> <p>Protection booming can be considered for water intakes.</p>
STORAGE & TRANSFER	<p>Store closed, labelled containers in cool, ventilated areas away from incompatible materials.</p> <p>Electrically ground containers and vehicles during transfer.</p>
DISPOSAL	<p>Place contaminated materials into segregated marked containers.</p> <p>Consult with environmental authorities during final disposal.</p>
FIRST AID	
EYES	<p>Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes, while holding the eyelids open.</p> <p>Remove contact lenses, if exposed to vapours or liquid.</p> <p>Get prompt medical attention.</p>
SKIN	<p>Remove and launder contaminated clothing.</p> <p>Wash skin thoroughly with soap and water.</p> <p>Get medical attention.</p> <p>Discard saturated leather articles.</p>
INHALATION	<p>Move victim to fresh air.</p> <p>Perform CPR if victim not breathing.</p> <p>Provide oxygen if victim is having difficulty breathing.</p> <p>Get prompt medical attention.</p>
INGESTION	<p>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.</p> <p>Get prompt medical attention.</p>

## Fuel Dye

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p> <b>APPEARANCE:</b> Dark Red Liquid      <b>FLASH POINT:</b> -28°C  <b>ODOUR:</b> Aromatic Hydrocarbon      <b>POUR POINT:</b> -45°C  <b>SOLUBILITY:</b> Negligible      <b>VISCOSITY:</b> Not Viscous  <b>VAPOUR DENSITY:</b> Will Sink to Ground Level      <b>SPECIFIC GRAVITY:</b> Floats on Water         </p>	
SAFETY MEASURES	
WARNING	<p>           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 contains xylene, benzene and ethyl benzene.            Inhalation of vapours can cause nausea, headache and dizziness.         </p>
PERSONAL PROTECTION	<p>           Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; PVC, Nitrile, and Viton are suitable materials (DO NOT USE NATURAL RUBBER or NEOPRENE OR PVC).            Wear full-face organic vapour cartridge respirator where oxygen is adequate; otherwise wear positive pressure SCBA, if circumstances warrant.         </p>
PRECAUTIONS	<p>           Avoid breathing vapours or mist.            Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozone, peroxides.            Eliminate ignition sources.            Restrict access and work upwind of spill.         </p>
RESPONSE TO FIRES	
CONSIDER ACTION ONLY IF SAFETY PERMITS!	<p>           Wear SCBA in confined areas.            Shut off fuel supply.            Extinguish fire with CO<sub>2</sub>, dry chemical, AFFF foam or water fog.            Use water to cool containers, exposed to fire.         </p>

## Propane

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p> <b>APPEARANCE:</b> Colourless Gas      <b>FLASH POINT:</b> -104°C  <b>ODOUR:</b> Natural Gas Odour      <b>POUR POINT:</b> -190°C  <b>SOLUBILITY:</b> Insoluble      <b>VISCOSITY:</b> N/A  <b>VAPOUR DENSITY:</b> Will Sink to Ground Level      <b>SPECIFIC GRAVITY:</b> Liquid Floats on Water         </p>	
SAFETY MEASURES	
WARNING	<p>           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.         </p>
PERSONAL PROTECTION	<p>           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).            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.         </p>
PRECAUTIONS	<p>           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.         </p>
RESPONSE TO FIRES	
CONSIDER ACTION ONLY IF SAFETY PERMITS!	<p>           Wear SCBA in confined areas.            Shut off fuel supply.            Extinguish fire with CO<sub>2</sub>, dry chemical, alcohol foam or water fog.            Use water to cool containers, exposed to fire.         </p>

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 CPR 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	
<p> <b>APPEARANCE:</b> Colourless Gas      <b>FLASH POINT:</b> -18°C  <b>ODOUR:</b> Garlic-Like      <b>POUR POINT:</b> -82°C  <b>SOLUBILITY:</b> Slightly Soluble      <b>VISCOSITY:</b> N/A  <b>VAPOUR DENSITY:</b> Will Sink to Ground Level      <b>SPECIFIC GRAVITY:</b> Liquid Floats on Water (0.06)         </p>	
SAFETY MEASURES	
<b>WARNING</b>	<p>           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.         </p>
<b>PERSONAL PROTECTION</b>	<p>           Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; use 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.         </p>
<b>PRECAUTIONS</b>	<p>           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.         </p>
RESPONSE TO FIRES	
<b>CONSIDER ACTION ONLY IF SAFETY PERMITS!</b>	<p>           Wear SCBA in confined areas.            Shut off fuel supply.            Extinguish fire with CO<sub>2</sub>, dry chemical, alcohol, foam, or water fog.            Use water to cool containers, exposed to fire.         </p>



## Antifreeze (Ethylene Glycol)

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	
<p>APPEARANCE: Colourless Liquid      FLASH POINT: 111°C          ODOUR: Slight; Undetectable &lt;25 ppm      POUR POINT: -13°C (48% Solution)          SOLUBILITY: Soluble in All Proportions      VISCOSITY: Not Viscous (=22 cSt)          VAPOUR DENSITY: Will Sink to Ground Level      SPECIFIC GRAVITY: Same as Water (1.0)</p>	
SAFETY MEASURES	
WARNING	<p>Vapours are heavier than air.          Ingestion of significant quantities can be lethal.          Eye contact causes irritation.          Skin contact can cause intoxication due to absorption.          Inhalation of vapours can cause intoxication, headache, vomiting, unconsciousness with convulsions, and even death          Avoid inhaling vapours, particularly in enclosed places.</p>
PERSONAL PROTECTION	<p>Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; neoprenes, nitrile, PVC are suitable protective materials.</p>
PRECAUTIONS	<p>Monitor empty containers 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.</p>
RESPONSE TO FIRES	
CONSIDER ACTION ONLY IF SAFETY PERMITS!	<p>Wear SCBA in confined areas.          Shut off fuel supply.          Extinguish fire with CO<sub>2</sub>, dry chemical, alcohol foam or water fog. (Note: Water or foam may cause frothing).          Use water spray to cool containers exposed to fire.</p>

ON LAND	Block entry into waterways. Do not flush into ditch/drainage systems. Contain spill by diking with earth, snow or other barrier. Remove minor spills with universal type absorbent. Remove large spills with pumps or vacuum equipment.
ON WATER	Ethylene glycol sinks and mixes with water; contain spill by isolating contaminated water through damming or diversion.
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 contaminated clothing. Wash skin thoroughly soap and water. Get medical attention.
INHALATION	Move victim to fresh air. Perform CPR if victim not breathing Provide oxygen if victim is having difficulty breathing. Get prompt medical attention.
INGESTION	INDUCE VOMITING IMMEDIATELY if victim is conscious; Get prompt medical attention.

## **SPILL PLANNING AND LOGISTICS**

The feasibility of containing and recovering a spill will be generally determined by its location and the rate of release, spreading, transport and evaporation. These rates should be compared with the total time needed to deploy response equipment in order to evaluate whether or not containment, and/or absorbent and skimming operations can be effectively implemented. The pre-assembly of spill cleanup kits will expedite response and reduce the total deployment time needed, including:

- Equipment and support material mobilisation time.
- Personnel mobilisation time, including transit and assembly.
- Actual equipment setup and deployment time.

- a. Determine Whether or not a spill has entered a waterway and whether or not access by land or water to control points is possible so that booms, absorbents and skimmers can be deployed. Check maps and consult with personnel familiar with the spill area.
- b. Establish priorities to optimise use of personnel and gear needed for all cleanup phases (containment, removal, storage, transfer and disposal) at selected sites.
- c. Allow additional time for adverse weather and flying.

## **MONITORING SPILLS**

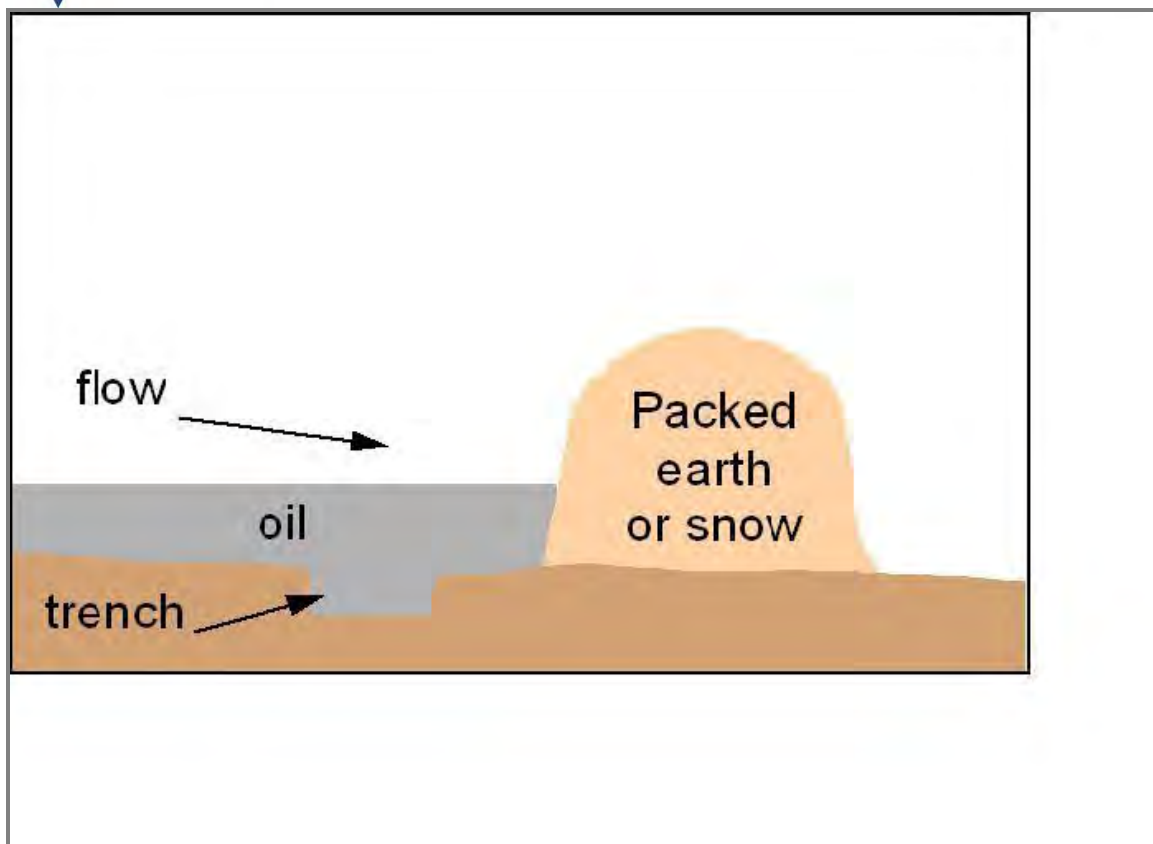
Peregrine will monitor spills throughout the response to ensure safety and to direct cleanup efforts:

- Explosive gas concentrations in the atmosphere using an explosion meter.
- Spill movement and behaviour, in order to properly direct response efforts.
- All threats to the safety of people, property and the environment.

## **SPILLS ON LAND**

Spills on land should be contained as close to the source as possible, if safety allows. Peregrine will make every effort to ensure that a spill does not reach water, where its containment and recovery (after breakup) are more difficult and the potential environmental impacts are greater. Containment can be achieved using:

- A berm or dyke around the spill source.
- A trench or ditch downslope of the spill source.



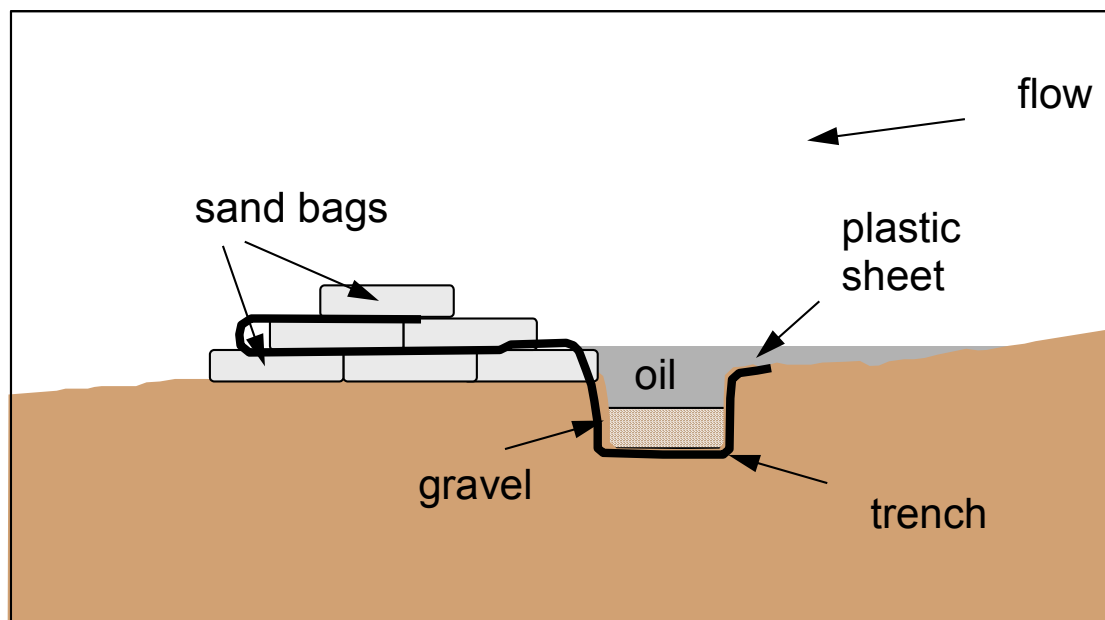
### **Earthen Berm/Trench**

If possible, locate the berm/trench sufficiently downslope of the release point to complete its construction before the spill arrives. Dig the trench along a natural drainage contour.

It should be approximately 0.5 m deep with a relatively flat bottom. The excavated material can then be combined with other available material to build the berm.

### **Sand Bag Berm/Trench**

Sand bags can be used where available and if the earth is too hard or frozen and cannot be excavated or compacted. A plastic liner can be used to seal the trench and bags should be anchored with gravel or rocks and be woven between layers of bags.



### Spills on Muskeg

Muskeg is generally poorly drained, wet and spongy. Internal drainage is usually slow and the depth of peat over mineral soil varies greatly. Muskeg is also highly acidic and low in nutrients, making biodegradation very slow, even during the summer months.

It is recommended that small oil spills in muskeg be mixed with peat moss and allowed to degrade during the summer months, since more damage can be done by attempting cleanup using mechanical removal methods.

In the event of a small spill, it is important to weigh the advantages or cleanup versus the potential negative impacts on the terrain. Both personnel and equipment on wet or sensitive areas can cause considerable damage. In many cases, the best solution may be to add nutrients to the contaminated area and monitor the site to ensure that the spill does not migrate to an adjacent sensitive area. In all cases, appropriate environmental advisors and regulatory authorities should be consulted.

## **SPILLS ON WATER**

Containing spills in water is often difficult because oil quickly spreads. In turbulent water, oil and chemicals are likely to mix into the water column, making recovery impractical. For these reasons, it is important that if the spill reaches water, that containment be attempted as close to the source as possible, and that the spill be prevented from reaching a flowing stream.

Spills in lakes should be contained, if possible, before reaching outlets where containment and recovery can be difficult and dangerous.

Efforts to contain spills in large streams should be limited to land-based operations where the oil might pool in accessible back eddies. The recovery of water-soluble chemicals is not possible.

In flowing streams, oil travels at the same speed as the surface current. On larger rivers or in open lake areas, slicks are also transported at 3.5% of the wind speed. Although a comparatively small effect, it can be an important factor if the wind is at right angles to the water flow and if the water surface is extensive. The wind can force the spill to the sides of the river where flows are slower or the shore of a lake. Long reaches of the river may become contaminated, although containment and recovery might also be possible.

In smaller streams, the wind will have less impact and the slick speed can be easily estimated. Placing a small stick in the middle of the stream and determining the length of time required to travel a given distance, typically 10 m. This information can be quickly converted to speed ( $36/\text{time (sec)} = \text{km/h}$ ) to determine the estimated travel time to a confluence or other sensitive area.

### **Containment Strategies for Spills on Water**

Determining the best strategy for containment will depend on a number of factors:

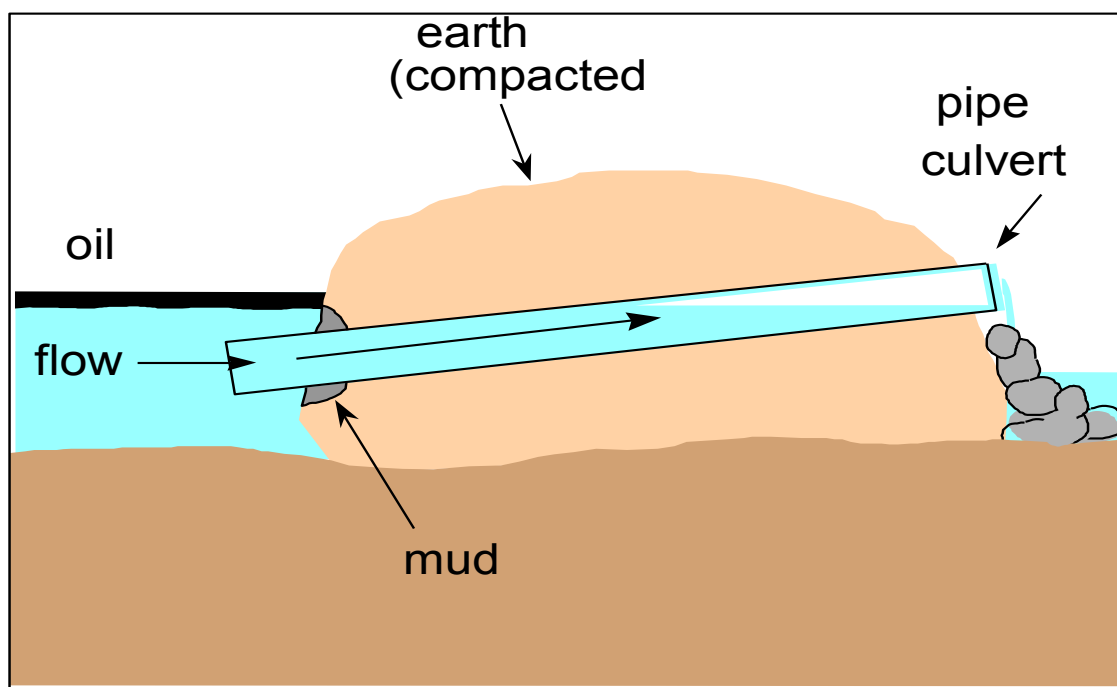
- Speed of oil-slick travel
- Location of possible containment sites
- Availability of personnel and equipment
- Location of sensitive areas
- Safety of operations

Spills on water can be contained by using floating booms (absorbent or non-absorbent) or by constructing a temporary berm or inverted weir. The objective is to build a barrier against which the (normally floating) oil will pool whilst allowing the underflow of water.

## Inverted Weir:

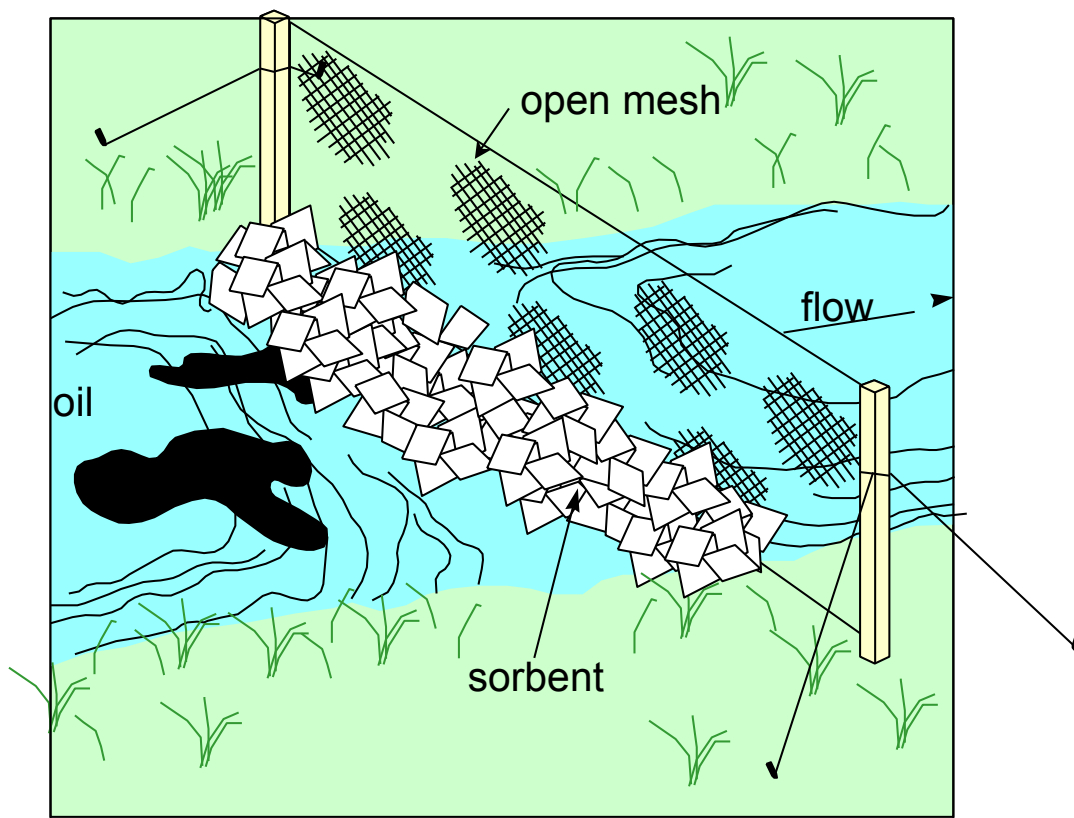
### Booms

Booming with either absorbent or non-absorbent booms can also be an effective means of containing spills on slow-moving waters and in lakes. Effective containment using conventional booming techniques will be difficult in streams or rivers where currents exceed 0.7 knots (0.4m/s). At these speeds, oil will become entrained in the water flowing under the boom, resulting in significant Losses. Some improvements can be achieved in waters flowing at 1-2 knots (0.5-1 m/s) if the boom is deployed at an angle of less than 90 degrees to the direction of the flow.

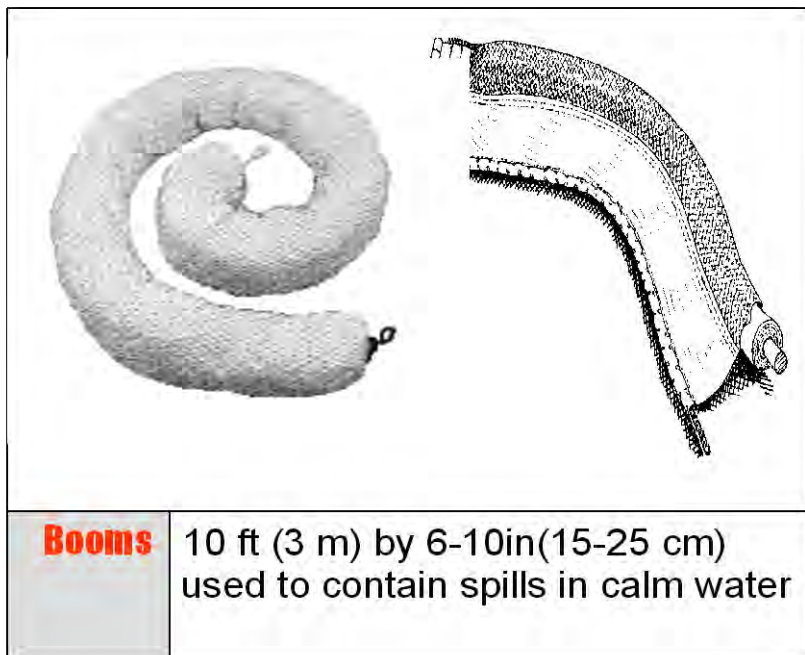


Absorbent booms or socks can also be used to provide a barrier to floating oil. These types of booms should be checked regularly to ensure that they do not become saturated with either water or oil, since they will tend to float very low in the water or even sink and release oil downstream.

**Filter Fence:**







## SPILLS ON ICE AND SNOW

Oil can remain relatively fresh, i.e., in an unweathered state under snow and ice for several months or more after a spill.

Evaporation rates will still be high when oil is ultimately exposed to the atmosphere, except in very low temperatures. Oil can also move up and down small hills (several metres high) due to the capillary action of the snow.

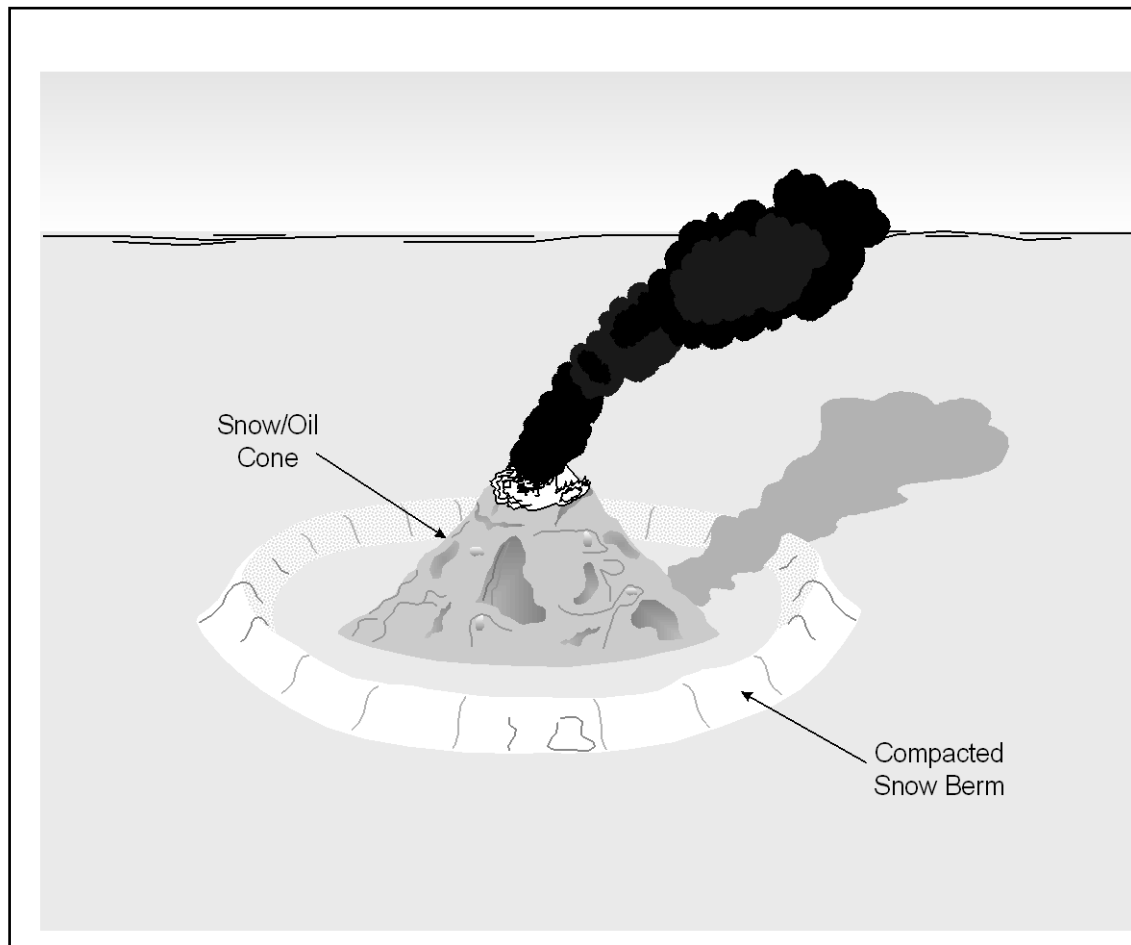
### Containment

Snow and ice can be used to create berms to keep spills from spreading. In frozen rivers, angled slots about 1 m wide or holes can be cut in the ice, where safety permits, to allow possible spill recovery. The oil will rise up into the openings where it will concentrate and be available for recovery using skimmers or pumps.

## Disposal

Oil spills in snow and ice can sometimes be burned if the spill can be isolated from the source. Although there is generally a reduced fire hazard, due attention to safety of operations is still required. If burning is not effective, recovered contaminated material will be collected and transported to a designated disposal/treatment facility.

### Burning Snow Cone:



## Recovery

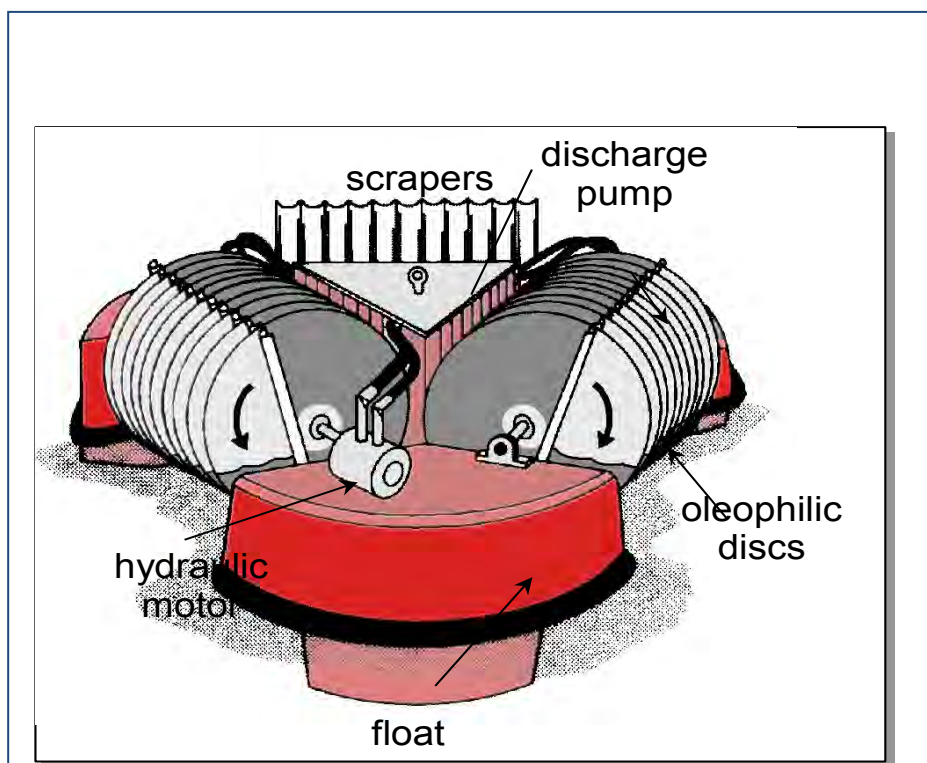
When large volumes of oil have been contained either through natural or mechanical containment, it will be necessary to remove or recover the accumulated oil. This will generally occur in excavated trenches or adjacent to berms or natural barriers and occasionally in slow running streams or quiet ponds.

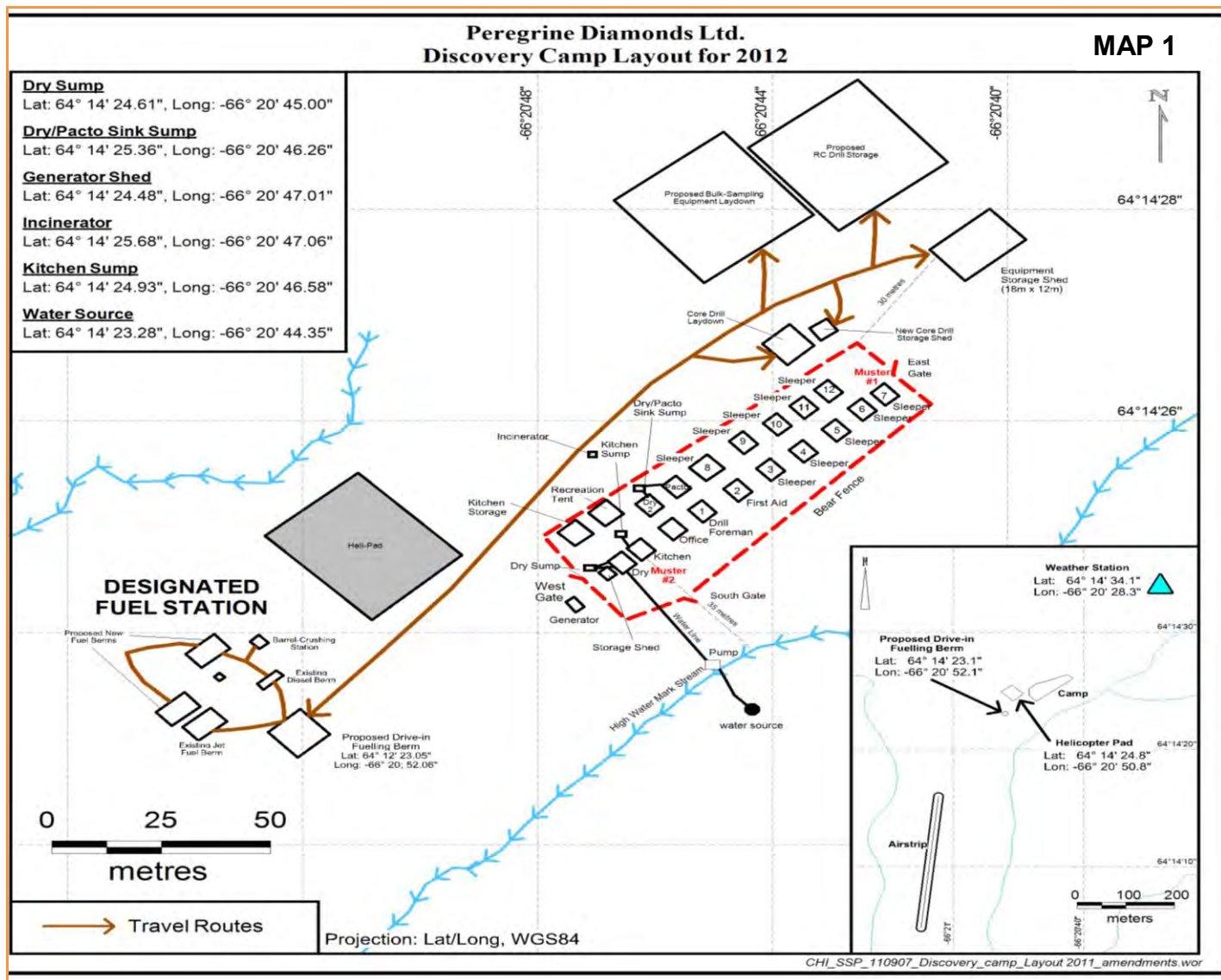
Vacuum trucks are not feasible at fly-in sites, but would be suitable for sites served by a seasonal or winter road and where a large volume of oil has pooled that is generally free of water. The truck must be positioned at a safe distance so that there is no possibility of fire or explosion.

Oleophilic devices, such as disc or drum skimmers, can selectively recover oil in water, and are better suited to applications where the oil has formed a distinct layer on top of quiet water. Accumulations adjacent to an inverted weir are an example. A vacuum truck would be largely ineffective in this instance, since it would recover large amounts of water, particularly in a thin layer of oil with water flowing through the pipe or culvert.

When using disc or drum skimmers, ensure that small items of debris are periodically removed from the scrapers to ensure their efficient operation.

## Disc Skimmer

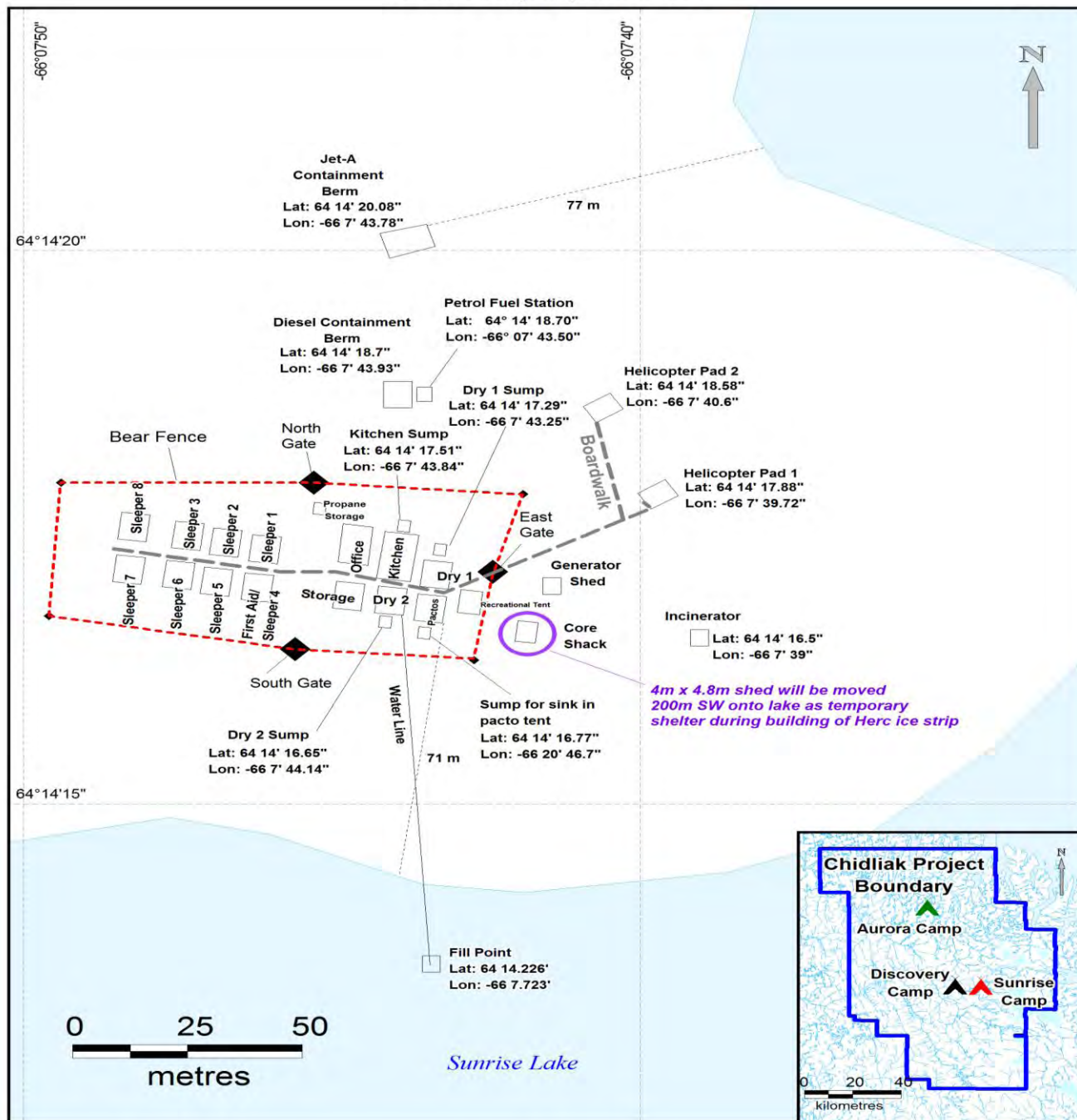




**Discovery Camp as it will appear after addition of Designated Fuel Station in February 2012  
and Expansion<sup>9</sup>**

Peregrine Diamonds Ltd.  
Sunrise Camp Layout for 2012

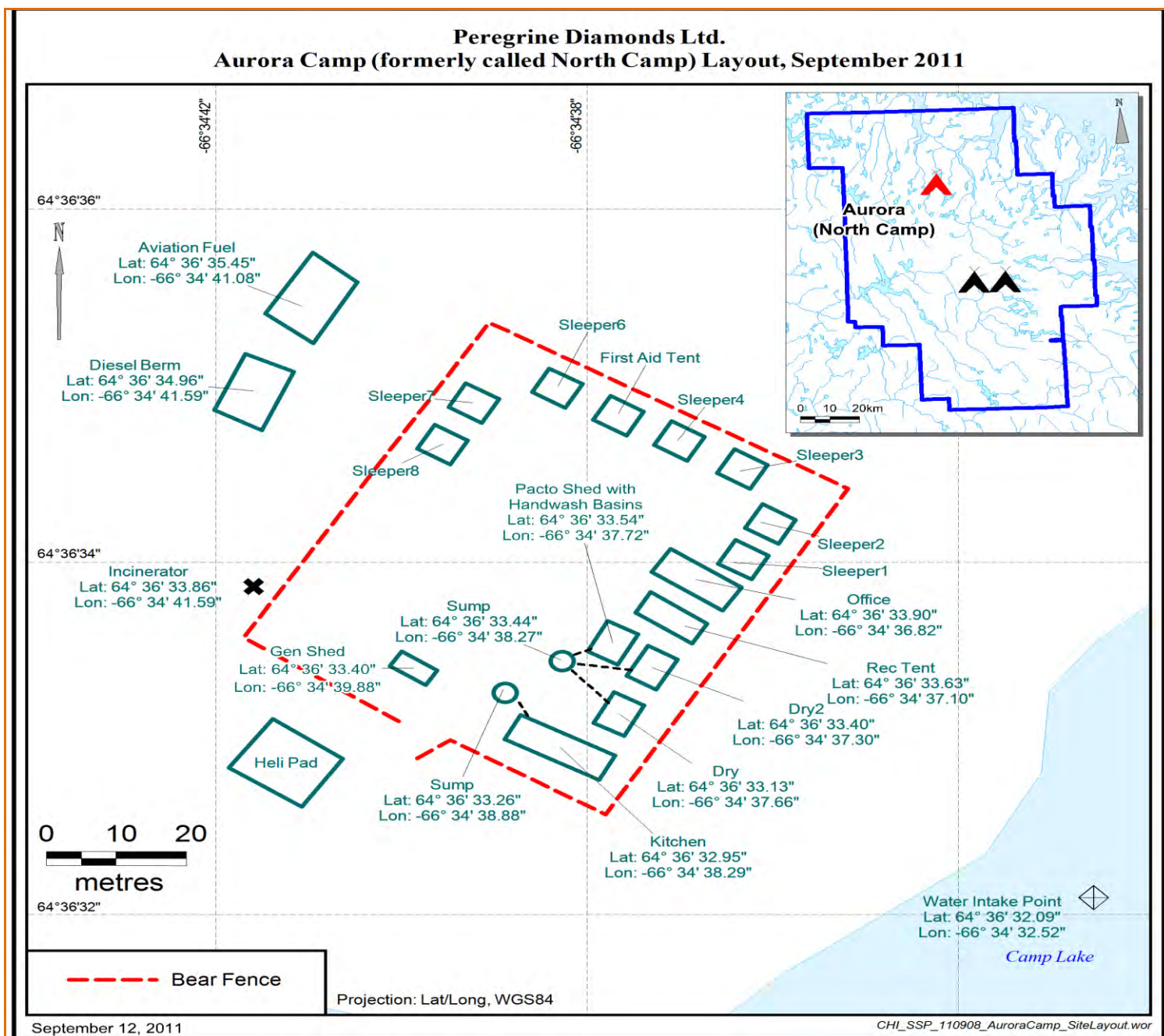
MAP 2



Sunrise Camp Layout for January 2012<sup>9</sup>

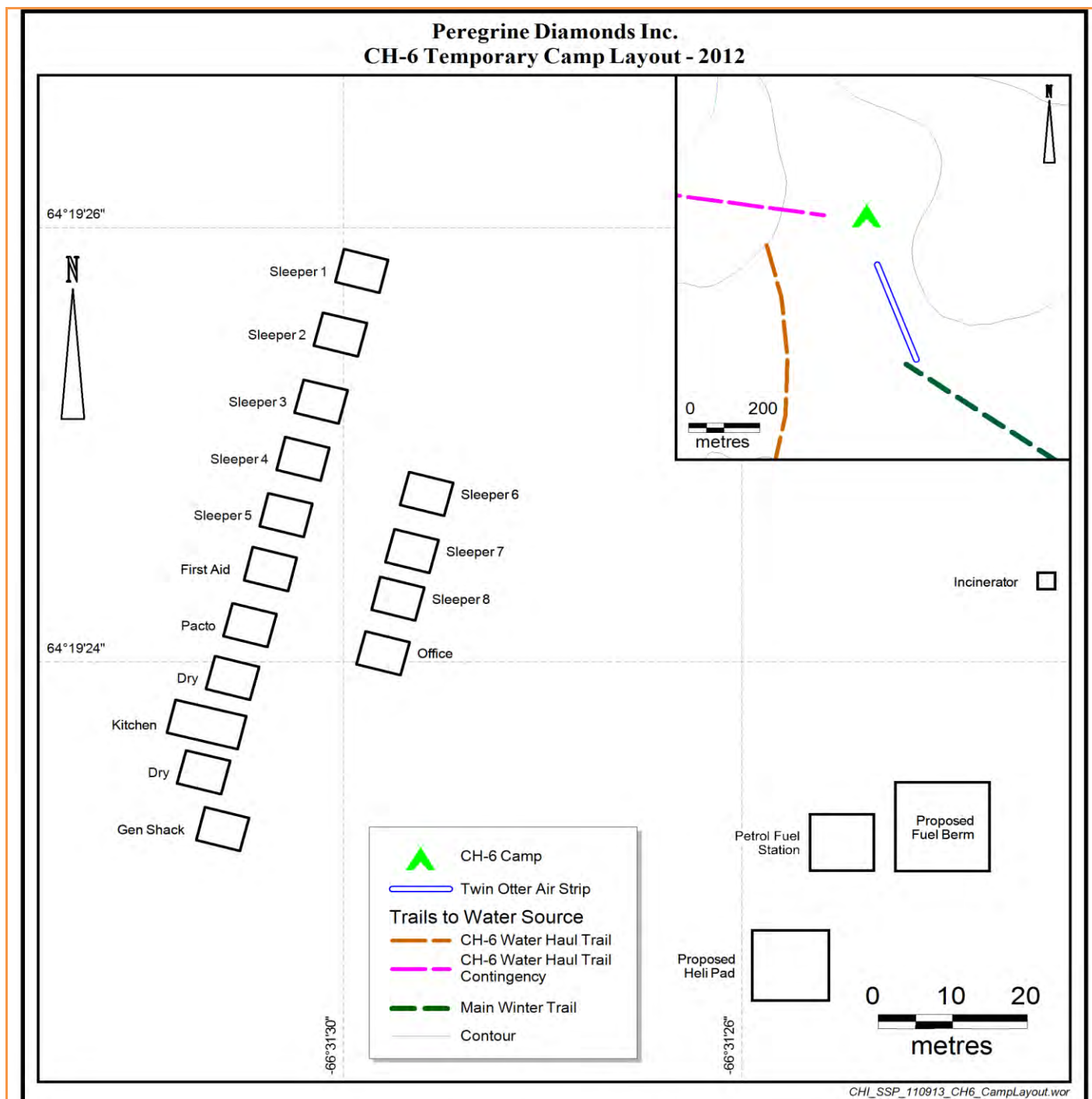


# MAP 3<sup>9</sup>



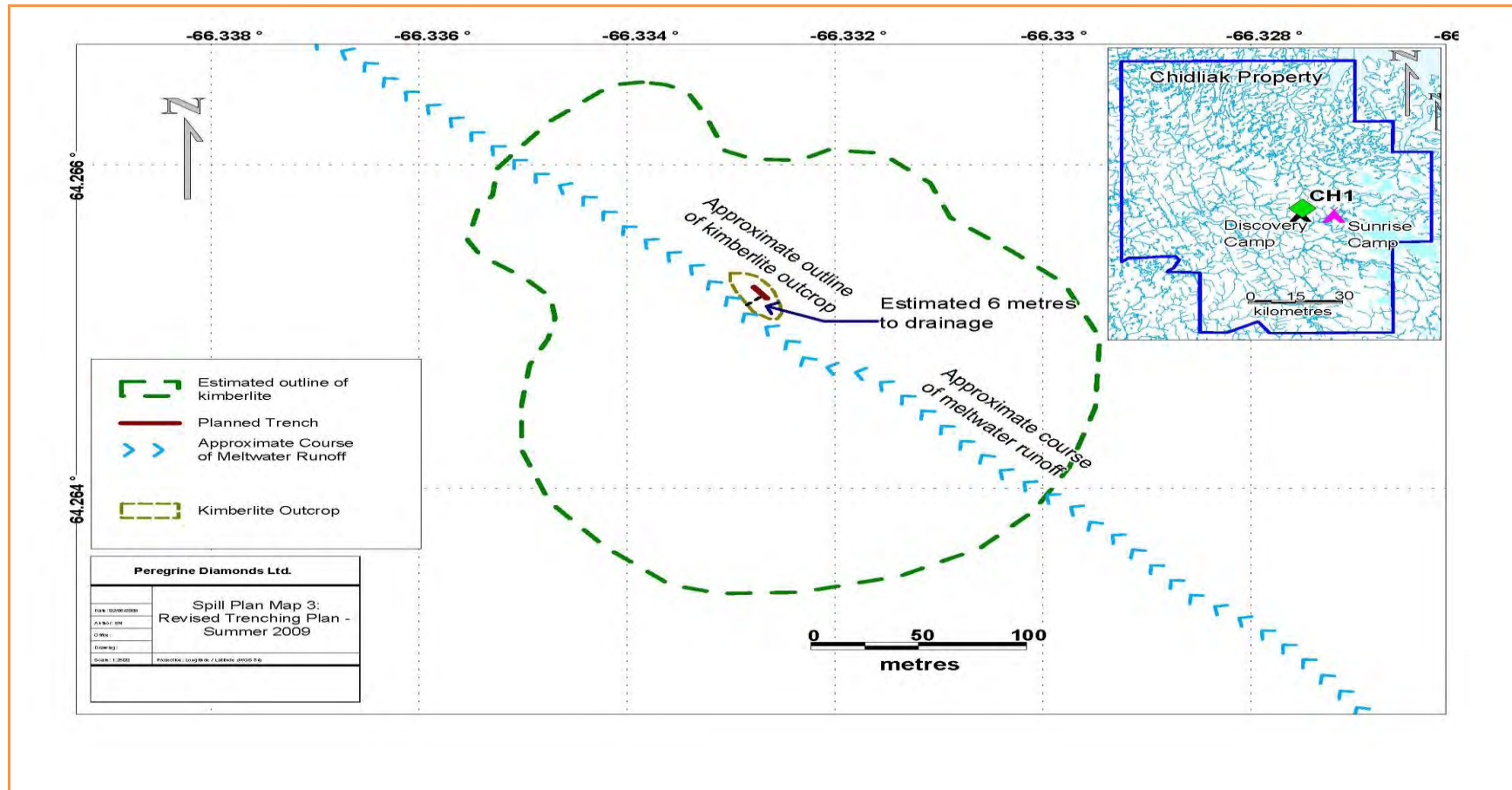
**Aurora Camp Layout, as it appeared at shutdown in September 2011. Camp is not scheduled to operate in winter 2012**

# MAP 4<sup>9</sup>



**Proposed Layout – CH-6 Temporary Camp, February 2012**

MAP 5<sup>9</sup>

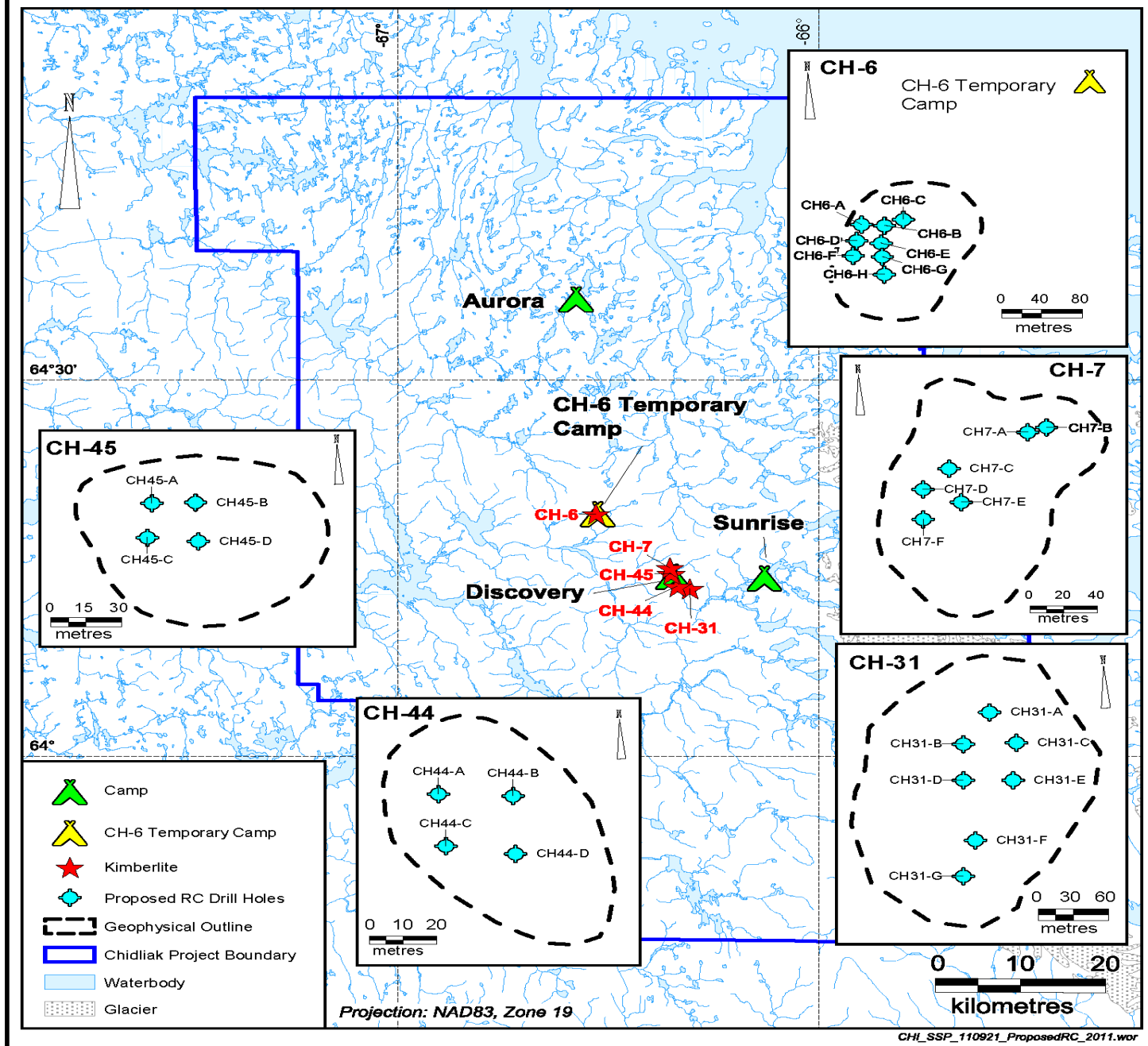


Trenching plan was approved for CH-1 kimberlite but has not yet occurred as of 2011<sup>6</sup>



Peregrine Diamonds Ltd.  
Provisional Bulk-Sampling Drill Plan - 2012:  
All Potential Drillholes from which Final Selection of Drillholes will be Made

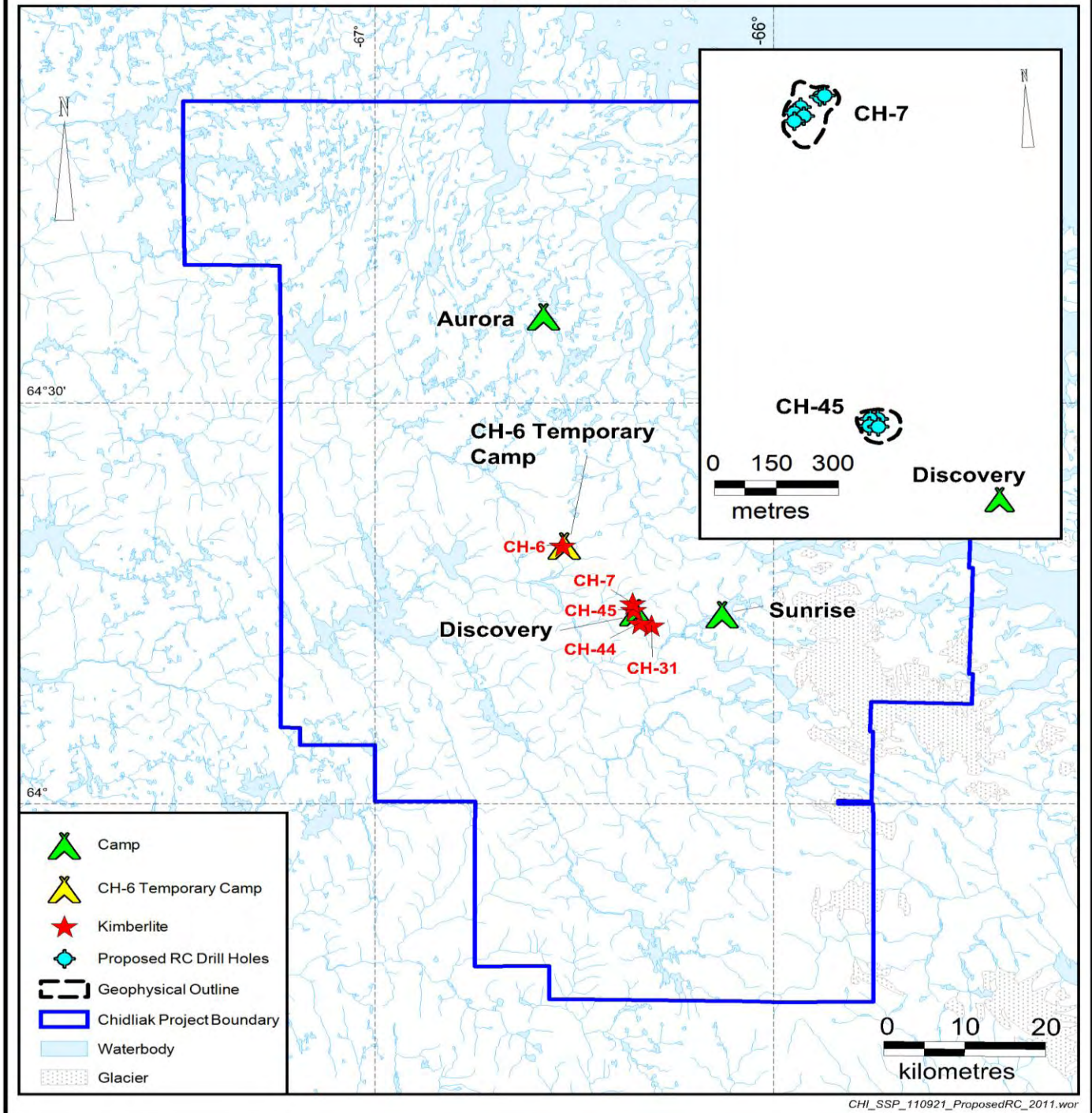
MAP 6a



Potential drillholes in relation to outlines of geophysical anomalies and camps in the Focus Area<sup>9</sup>

Peregrine Diamonds Ltd.  
Potential Drillholes for CH-7 and CH-45 Kimberlites  
in relation to Discovery Camp

MAP 6b



Potential drillholes within outlines of CH-7 and CH-45 kimberlites in relation to the proposed base of operations, Discovery Camp.

**APPENDIX TO SPILL CONTINGENCY PLAN – CHIDLIAK AND QILAQ PROPERTIES<sup>4</sup>  
AND IOLs AND CUMBERLAND PROJECT<sup>5</sup>**

**MATERIAL SAFETY DATA SHEETS  
(MSDS)**

***(See updated MSDS CD accompanying this application as Appendix 2)***<sup>9</sup>



## APPENDIX A

### MATERIAL SAFETY DATA SHEETS (MSDS) INDEX (UPDATED)

#### **FUELS, FUEL ADDITIVES, OIL** **Chidliak, Qilaq, Cumberland and Nanuq Projects – 2012 Programmes** **(and activity on IOLs, as applicable)**

MSDS-Air Tool Oil-Kleen-Flo-2010-CURRENT-Added to List-Cooper  
MSDS-ATF Dexron III-Mercon-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-ATF Type F Oil-Petro-Canada-2010-CURRENT-Added to List  
MSDS-Bombardier BRP XP-S Mineral 2-Stroke Injection Oil-413803000-Unregulated  
MSDS-ChainOil-Light-Shell-2008-CURRENT  
MSDS-Delo LE400 Synthetic SAE 5W40-2008-CURRENT-Added to List  
MSDS-Diesel Fuel No 2-Conoco-2010-Added to List-Cooper  
MSDS-Diesel Fuel Oil Conditioner-Kleen-Flo-2009-CURRENT  
MSDS-DIESEL Fuel-PetroCan-2009-CURRENT  
MSDS-Duron 10W-30 Heavy Duty EngineOil-PetroCan-2009-CURRENT  
MSDS-Duron 15W-40 Heavy Duty EngineOil-PetroCan-2010-CURRENT  
MSDS-Essolube HD Engine Oil 15W-40-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Essolube HDX Plus Engine Oil 10-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Hydraul 50-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-HYDREX\_MV 22\_36\_60-PetroCan-2009-CURRENT  
MSDS-HYDREX\_MV\_Arctic\_15-PetroCan-2010-CURRENT-Updated  
MSDS-HYDREX Extreme-PetroCan-2011-CURRENT-Added to List  
MSDS-Jet A1-Shell-2008-CURRENT  
MSDS-Jet A-A1-PetroCan-2009-CURRENT  
MSDS-Jet B-PetroCan-2009-CURRENT  
MSDS-Kaybob Frac Oil 300-Amoco-2010-CURRENT-Added to List-Cooper  
MSDS-Kerosene-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Kleen Start-Starting Fluid-Kleen-Flo-2010-CURRENT  
MSDS-Light Distillate Winter DIESEL-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Mobil Hydraulic Oil 15 Special-Exxon-2010-CURRENT-Added to List-Cooper  
MSDS-Mobil Jet Oil 254-Esso-2008-CURRENT  
MSDS-Mobil Jet Oil II-Esso-2007-CURRENT  
MSDS-Petrol Unleaded-Shell-2010-CURRENT  
MSDS-Petrol-Unleaded-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Petrol-Unleaded-PetroCan-2010-CURRENT  
MSDS-Polaris 2T VES Synthetic Oil-2007-CURRENT  
MSDS-Polaris Prem Blue SemiSynthetic Blend Oil-2007-CURRENT  
MSDS-Portable Heater Fuel-Imperial Oil-2010-CURRENT-Added to List-Cooper

**FUELS, FUEL ADDITIVES, OIL (*cont.*)**  
**Chidliak, Qilaq, Cumberland and Nanuq Projects – 2012 Programmes**  
**(and activity on IOLs, as applicable)**

MSDS-Propane-Air Liquid-2011-CURRENT-Updated-Cooper  
MSDS-PWC 150 Frac Fluid-Poco-2010-CURRENT-Added to List-Cooper  
MSDS-Quaker State SAE 30 Motor Oil-2008-CURRENT  
MSDS-Quick Start Ether Cylinders-2011-CURRENT-Added to List  
MSDS-Rotella T 10W-30-CJ-4-Engine Oil-Shell-2009-CURRENT  
MSDS-Rotella T 15W-40-CJ-4-Engine Oil-Shell-2009-CURRENT  
MSDS-Snowmobile Motor Oil-PetroCan-2009-CURRENT  
MSDS-Sour Natural Gas-Conoco-2010-CURRENT-Added to List-Cooper  
MSDS-Stihl Bar and Chain Lubricant-Omni-2010-CURRENT-Added to List-Cooper  
MSDS-Sweet Natural Gas-Conoco-2010-CURRENT-Added to List-Cooper  
MSDS-United Farmers of AB Hydraulic Oil XL-L-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-United Farmers of AB Hydraulic Oil XL-LoTemp-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Used Oil-Safety Kleen-2010-CURRENT-Added to List-Cooper  
MSDS-XD-3 Extra Engine Oil 10W-30-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-XD-3 Extra Engine Oil 15W-40-Imperial Oil-2010-CURRENT-Added to List-Cooper



**DRILLING MUDS, GREASES, LUBRICANTS**  
**Chidliak, Qilaq, Cumberland and Nanuq Projects – 2012 Programmes**  
**(and activity on IOLs, as applicable)**

MSDS-Aeroshell Fluid 41-Aircraft-2009-CURRENT  
MSDS-Aeroshell Grease 7-Aircraft-2008-CURRENT  
MSDS-Aeroshell Grease 22-Aircraft-2008-CURRENT  
MSDS-Alcomer 120L OS-Diversity Tech-2008-most CURRENT  
MSDS-Allstar Lubricant Sealer-Topco-2011-CURRENT-Added to List-Cooper  
MSDS-API Modified Thread Compound-Topco-2010-CURRENT-Added to List-Cooper  
MSDS-API ModifThreadCompound-PetroCan-2009-CURRENT  
MSDS-Arctic Blend Boiler Compound-World Chemicals-2010-CURRENT-Added to List-Cooper  
MSDS-Bayol 35 Mineral Oil-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-Bio Foam-Diversity Tech-2008-CURRENT  
MSDS-Brazilian WW Gum Rosin-2008-CURRENT-Added to List  
MSDS-Calcium Chloride-Pestell-2011-CURRENT-Updated  
MSDS-Compro Compressor Fluid 32 68 100 150-Petro-Canada-2009-CURRENT  
MSDS-CSB-Beet Juice Antifreeze-Westway-2007-most CURRENT  
MSDS-DD2000-MATEX-Control Chemical-2011-CURRENT-Updated  
MSDS-Distillate 822-Prairie Mud-2009-CURRENT-Added to List-Cooper  
MSDS-Drill Rod Grease-PetroCan-2010-CURRENT  
MSDS-Duron Synthetic Oil-Petro-Canada-2010-CURRENT-Added to List  
MSDS-Enviro Grease- Drill Rod Grease-Poly-Drill-2008-CURRENT  
MSDS-EP1\_EP2-Precision-General-Purpose-2010-CURRENT-Added to List  
MSDS-Esso Gear Oil GX 75W-90-Imperial Oil-2010-CURRENT-Added to List-Cooper  
MSDS-GEN 49D with Cetane Improver-Maryn-2010-CURRENT-Added to List-Cooper  
MSDS-Grease OG-0-1-2-PetroCan-2010-CURRENT-Added to List-Cooper  
MSDS-Howes Lubricator 70-30 and Winter Treat Plus-RB Howes-2010-CURRENT-Added to List-Cooper  
MSDS-Insulating Cement R-ANH Refractories-2009-CURRENT-Added to List  
MSDS-Kopr Kote Thermal Grade-Jet-Lube-2010-CURRENT-Added to List-Cooper  
MSDS-LBX Special Grease-Jet-Lube-2010-CURRENT-Added to List-Cooper  
MSDS-Lithium Complex Moly 3 or 5-Grease Warehouse-2007-CURRENT  
MSDS-LPS 1 Premium Lubricant-2008-CURRENT  
MSDS-LPS 2 Aerosol-PetrolDistillate-2009-CURRENT  
MSDS-NL Collar Compound-Topco-2010-CURRENT-Added to List-Cooper  
MSDS-PD1300-Poly-Drill-2008-CURRENT  
MSDS-Powr Kote-Jet-Lube-2010-CURRENT-Added to List-Cooper  
MSDS-Precision Synthetic-Petro-Canada-2011-CURRENT-Added to List  
MSDS-Precision Synthetic Moly-Petro-Canada-2011-CURRENT-Added to List  
MSDS-Precision XL 3 Moly Arctic-Petro-Canada-2009-CURRENT-Added to List  
MSDS-Produro TO-4 XL Synthetic Blend Lo-Temp-PetroCan-2011-CURRENT-Added to List  
MSDS-Produro TO-4 10W 30 50 60-PetroCan-2011-CURRENT-Added to List  
MSDS-Pure Vis-Mineral Oil Viscosifier-Poly-Drill-2009-CURRENT  
MSDS-Rando HDZ Lubricating Oil-Chevron-2008-CURRENT-Added to List  
MSDS-Rockwell Foamer-Rockwell Servicing-2010-CURRENT-Added to List-Cooper

**DRILLING MUDDS, GREASES, LUBRICANTS (cont)**  
**Chidliak, Qilaq, Cumberland and Nanuq Projects – 2012 Programmes**  
**(and activity on IOLs, as applicable)**

MSDS-Rod Ease-Miswaco-2009-CURRENT-Added to List

MSDS-Traxon-80W-90-85W-140-PetroCan-2009-CURRENT

MSDS-Traxon Synthetic 75W-90-PetroCan-2009-CURRENT

MSDS-Unirex-EP2 Grease-Imperial Oil-2010-CURRENT-Added to List-Cooper

MSDS-United Farmers of AB Multipurpose Gear Oil 80W-90-Imperial Oil-2010-CURRENT-Added to List-Cooper

MSDS-United Farmers of AB THG Fluid Extra-Imperial Oil-2010-CURRENT-Added to List-Cooper

MSDS-Univis N22-Imperial Oil-2010-CURRENT-Added to List-Cooper

MSDS-WD40-Aerosol-2010-CURRENT-Updated

MSDS-WD40-BulkLiquid-2008-CURRENT

MSDS-White Lithium Grease-Bulk-2010-CURRENT-Added to List

MSDS-Zincote-Topco-2010-CURRENT-Added to List-Cooper

**MISCELLANEOUS CHEMICALS**  
**Chidliak, Qilaq, Cumberland and Nanuq Projects – 2012 Programmes**  
**(and activity on IOLs, as applicable)**

MSDS-50-50 Premixed Diesel Extended Life Antifreeze Coolant-Recochem-2010-CURRENT-Added to List-Cooper  
MSDS-262 Threadlocker Permanent Strength-Loctite-2010-CURRENT-Added to List-Cooper  
MSDS-ABC Fire Extinguisher-PyroChem-2011-CURRENT-Updated  
MSDS-Acetylene-Air Liquide-2011-CURRENT-Added to List  
MSDS-Air Brake Antifreeze-Rechochem-2010-CURRENT-Added to List-Cooper  
MSDS-Air Compressed-Air Liquide-2010-CURRENT-Added to List-Cooper  
MSDS-Armashell Chrome Cleaner-Kleen-Flo-2010-CURRENT-Added to List-Cooper  
MSDS-Auto Glass Cleaner-Radiator Specialty-2010-CURRENT-Added to List-Cooper  
MSDS-Back Off Bear Deterrent--2010-CURRENT  
MSDS-Blueshield Pro Gouging Electrode-Air Liquide-2008-most CURRENT-Added to List  
MSDS-Brake & Elec. Contact Kleen-2009-CURRENT  
MSDS-Brakleen Brake Parts Cleaner-Aerosol-CRC Canada-2011-CURRENT-Added to List  
MSDS-Calcium Aluminate Cement-Kerneosinc-2010-CURRENT-Added to List  
MSDS-Calibration Gas-Calgaz-2010-CURRENT-Added to List-Cooper  
MSDS-Carbon Dioxide-Air Liquide-2010-CURRENT-Added to List-Cooper  
MSDS-Carbon Steel Electrode Prostar S6-Sidergas-2010-CURRENT-Added to List-Cooper  
MSDS-Chem-Sol-Chemfax-2010-CURRENT-Added to List-Cooper  
MSDS-Chevrolet Orange Spray Paint-Seymour Paint-2011-CURRENT-Added to List  
MSDS-Commercial Coatings 600N Spray Pain-Martin Seymour-2010-CURRENT-Added to List-Cooper  
MSDS-Dow Corning 736 Heat-Resistant Sealant-2010-CURRENT  
MSDS-Electro Contact Cleaner-LPS Labs-2008-CURRENT  
MSDS-Engine Degreaser 75025-CRC-2010-CURRENT-Added to List-Cooper  
MSDS-Envirosol-RM-Chemicals-2010-CURRENT-Added to List-Cooper  
MSDS-Esso HD Antifreeze-2010-CURRENT-Added to List-Cooper  
MSDS-Esso Rad-2010-CURRENT-Added to List-Cooper  
MSDS-Form-a-Gasket #2 Sealant-Loctite-2010-CURRENT-Added to List-Cooper  
MSDS-Form-a-Gasket R 26C RTV Red High Temp-Loctite-2010-CURRENT-Added to List-Cooper  
MSDS-Glass Cleaner-14100-CRC-2010-CURRENT-Added to List-Cooper  
MSDS-Gloss Red-Barnes Distribution-Seymour Paint-2007-most CURRENT-Added to List  
MSDS-Gloss White-Barnes Distribution-Seymour Paint-2010-CURRENT-Added to List  
MSDS-Gun Blue-Bushnell-Aug2007-CURRENT  
MSDS-High Strength Threadlocker Red Automotive GradeHenkel-2008-CURRENT-Added to List  
MSDS-Kleen-Flo Silicone Gasket Maker-2009-CURRENT  
MSDS-Lacquer Thinner 13-554-Recochem-2007-CURRENT  
MSDS-LaFarge Portland Cement--2008-CURRENT  
MSDS-Lead-Acid-BATTERY-Exide-2008-CURRENT  
MSDS-LePage Prestite Contact Cement-2008-Unregulated  
MSDS-LePage Speed-Set Epoxy Hardener-2008-CURRENT  
MSDS-Liquid Fire Starting Fluid-Radiator Specialty-2010-CURRENT-Added to List-Cooper



**MISCELLANEOUS CHEMICALS (cont)**  
**Chidliak, Qilaq, Cumberland and Nanuq Projects – 2012 Programmes**  
**(and activity on IOLs, as applicable)**

MSDS-Lock De-Icer-Kleen-Flo-2009-CURRENT-Added to List  
MSDS-LPS A-151 Solvent Degreaser-incl. Aerosol-2010-CURRENT  
MSDS-LubeCorp Regular Diesel-Fuel Conditioner-LubeCorp-2008-CURRENT-Added to List  
MSDS-Marine Enamel Gloss Alkyd Rust-Resistant White Base-Cloverdale-2010-CURRENT-Added to List-Cooper  
MSDS-Marking SPRAY PAINT-RustOLEum-2008-CURRENT  
MSDS-Methyl Ethyl Ketone Solvent-Scienlabs-2008-CURRENT  
MSDS-Methyl Hydrate 13-390-Alcohol Solvent-Recochem-2009-CURRENT  
MSDS-Motomaster Elec. Contact Cleaner-ShraderCanada-2008-CURRENT  
MSDS-Nitrogen-Inert-Undated-CURRENT  
MSDS-Non-Flammable Gas Mixture-Gas Liquide-2010-CURRENT-Added to List  
MSDS-Original Gas Line Anti-Freeze-Kleen-Flo-2009-CURRENT-Added to List  
MSDS-Oxygen-Compressed-Air Liquide-2010-CURRENT-Updated-Cooper  
MSDS-Oxygen (gas liquid)-Various Uses-Air Liquide-2008-CURRENT  
MSDS-Oxygen Medical-Airgas Company-2007-CURRENT  
MSDS-Petro-Canada-Antifreeze-2010-CURRENT-Added to List  
MSDS-Premium RV Plumbing Antifreeze-50-2010-CURRENT-Added to List-Cooper  
MSDS-Preserves Protectant-Mothers-2010-Added to List-Cooper  
MSDS-PRIST Aviation Glass Cleaner Aerosol-2010-CURRENT  
MSDS-Propylene Glycol USP/EP-Univar-2009-CURRENT  
MSDS-Propylene Glycol Antifreeze-Boss Lubricants-2009-CURRENT  
MSDS-Rad Seal Radiator Stop Leak-Kleen-Flo-2009-CURRENT-Added to List  
MSDS-Rough Neck-Chemfax-2010-Added to List-Cooper  
MSDS-RTV Red Silicon Sensor-Safe Hi-Temp GasketMaker-LocTite-2008-most CURRENT-Added to List  
MSDS-Siloo Glass Cleaner-CRC-2010-CURRENT-Added to List-Cooper  
MSDS-Snowmobile Antifreeze 50-50 PreMix PG-Polaris-2007-CURRENT  
MSDS-Superflex Clear RTV Silicone Adhesive Sealant-Loctite-2010-CURRENT-Added to List-Cooper  
MSDS-Supreme Fuel Injector Gas Line Anti-Freeze-Kleen-Flo-2009-CURRENT-Added to List  
MSDS-T300 Tar Remover-Ostrem-2010-CURRENT-Added to List-Cooper  
MSDS-Tal-Strip II Aerosol-Bondo-2010-CURRENT-Added to List-Cooper  
MSDS-Tal-Strip II Aircraft Coating Remover-Plastic Gallons-Bondo-2010-CURRENT-Added to List-Cooper  
MSDS-Windshield Washer and Antifreeze-35-Recochem-2010-CURRENT-Added to List-Cooper  
MSDS-Windshield Washer -35° C-Recochem-2009-CURRENT-Added to List  
MSDS-Winter Universal Gas Line Antifreeze-PetroCan-2010-CURRENT  
MSDS-Wurth Brake Cleaner 4L-2009-CURRENT

## **APPENDIX B**

### **CHIDLIAK PROGRAMME SPILL RESPONSE PRACTICE DRILL (TEST OF EMERGENCY-RESPONSE PLAN) 31 AUGUST 2011**

## CHIDLIAK PROGRAMME

### SPILL Response Practice Drill (Test of Emergency-Response Plan), 31 August 2011

Input #	Time:	Message Form:	Message To:	Sent By:	Text of Message:	Expected Action / Key Performance:
1	19:52	Visual	N / A	Visual	Jet A spill discovered near the helicopter pad. Drum of Jet A fallen from long line and split open spilling contents.	Attempt to stop remaining fuel in drum from spilling if safe to do so. Estimate the volume and extent of the spill. Immediately report incident to the ERT and all available staff within 5 minutes.
2	19:52	Operations Manager	Emergency Response Team	Radio	"Code 1, Code 1, Code 1, This is Ron at the heli pad. There is large Jet A spill near the southwest gate. Spill response team come to the heli pad and bring the large spill kit. All available personnel to the site and bring shovels and containers.	Spill response team goes to the incinerator to retrieve the large spill kit. Project Manager arrives at heli pad to investigate source and cause of the spill. Operations Manager initiates the spill clean up.
3	19:54	Operations Manager	Emergency Response Team	Verbal	A drum of Jet A was dropped from the helicopter long line. Most of the fuel has spilled out. Get the oil absorbent booms and put them around spill.	Primary response is to contain and isolate the spill for treatment either by aeration or removal.
4	19:55	Operations Manager	Emergency Response Team and all available staff	Verbal	Direction given for clean up activities. Laying out oil absorbent booms, using small containers to scoop pooled Jet A into spill kit drum, laying out of oil absorbent pads and shovelling contaminated soil into spill kit and other containers, including plastic bags provided in spill kit.	Responders follow Operations Manager's directions (contain spill with oil absorbent booms, scoop excess fuel into spill kit drum, lay out absorbent pads and shovel soil into drum)
5	20:10	Operations Manager	N / A	N / A	Operations Manager continues to give direction to spill response team and all available personnel until site cleaned.	Continued cleaning. Site cleaned.
6	Same Day	Project Manager	Spill Line	Phone	Simulated verbal report to the Spill Line.	Simulated report to Spill Line. Once the spill is controlled and clean up actions are taken.
7	Same Day	Project Manager	IMT Leader	N / A	Simulated verbal report to the IMT Leader.	Simulated call to IMT Leader to notify of spill and planned action.



Time  
Line:

## Exercise Time Line:

19:52 Operations Manager calls in CODE 1 emergency to spill response team

19:54 Spill response team arrives with spill kit and equipment to stop, contain and remove contamination.

19:55 Operations Manager directs spill response team (Joe Kilabuk and Allan Munick) and all staff in containment and recovery methods

20:10 Spill and contaminated soil placed in drums.



19:54 Response Team member, Joe Kilabuk, arrives with spill kit.



Hazardous material boom placed around the spill.



Contaminated soil shovelled into spill kit.

20:10 Spill clean up completed.

Operations Manager determined that spill was approximately 200 litres, therefore there was a requirement to report to the 24 Hour Spills Report Line. Simulated call made to spill line.

Same Day	Project Manager made a simulated telephone call to Brooke Clements, our IMT Leader to notify of the Action Plan and resolve.
Same Day	The ERT and staff present for the exercise held a short critique to discuss the exercise. A review of the Spill Kit was conducted to ensure that all understood the contents and applications. Key performance timelines for reporting of the spill to the Operations Manager, calling of a "Code 1, containment of the camp spill, initiation of the clean up and reporting of the spill to the IMT Leader were met.

## APPENDIX C

### **“NOTICE OF MODIFICATION” LETTER TO NUNAVUT WATER BOARD REGARDING SINGLE EVENT OF BLASTING WHICH OCCURRED IN JULY 2010**

***In compliance with Water Licence #2BE-CHI0813 Amendment #3, Part H, Item 2(a), Peregrine commits to providing 30 days’ notice to the Nunavut Water Board, should explosives use be contemplated in 2011 or 2012<sup>9</sup>. The appropriate mitigations for the specific explosives intended and for their specific use would then be supplied by Peregrine as advised by the explosives specialist supplying the product(s).***



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## **EMERGENCY RESPONSE PLAN – CHIDLIAK PROJECT, QILAQ PROJECT AND PROJECT ON IOLs, AND CUMBERLAND PROJECT**

A spill is classified as the discharge of petroleum products or other dangerous substances into the environment. Potential hazards created by the spill for humans, vegetation, water resources, fish and wildlife vary in severity, depending on several factors, including nature of the material, quantity spilled, location and season. Refer to the detailed *Spill Contingency Plan – Chidliak Project and Adjoining Qilaaq Property,*) and *Cumberland Prospecting Permits* for specific response information. The general emergency response to be followed in the event of a spill in the project areas, South Baffin Island, NU, is:

- Protect people* - prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion
- Identify the product and its source* - check container design, warning labels, markings, Material Safety Data Sheets, etc., to enable prompt and appropriate response.
- Stop the flow at the source* - reduce or terminate the flow of product without endangering anyone
- Assess the seriousness of the spill* - assess potential dangers of the spill to human health and safety, the aquatic environment, wildlife, ground water, vegetation and other land resources
- Report the spill* – complete a NU Spill Report Form and contact the NU 24-hour Spill Report Line. Provide information on the form and to the Environment Canada officer by phone/FAX/e-mail, including location of spill, (company) name of polluter, type and amount of material spilled, date and time of the spill, any perceived threat to human health or the environment, and remedial actions taken and planned.
- Clean up the spill* - follow procedures appropriate for the location, environment, material and time of year.
- Evaluate and learn* – after the emergency has passed, evaluate the incident and the clean up with the goal of continuous improvement in prevention and response; train or re-train personnel and ensure a practice incident-and-response drill is held at least once per field season.

**24-Hour Spill Report Line: (867) 920-8130 or fax (867) 873-6924**

**Environment Canada Enforcement: 24-Hour Emergency Line: (867) 920-8130  
Indian and Northern Affairs (INAC) Manager, Field Operations  
(Iqaluit): (867) 975-4295 (ph), -6445 (FAX)  
(manager ensures proper interface with land and water inspectors)**