PILITAK ENTERPRISES LTD

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SPILL PREVENTION & RESPONSE PLAN

Arctic Bay Harbour Development

CW2405837

Submitted to:

Public Services and Procurement Canada

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APPENDICES

List of abbreviations

Abbreviation	Full Name
CCEMP	Contractor CEMP
DFO	Fisheries and Oceans Canada
EM	Environmental Monitor
HWTSA	Hazardous Waste Temporary Storage Area
NIRB	Nunavut Impact Review Board
NU	Nunavut
NRCan	Natural Resources Canada
NWB	Nunavut Water Board
PEL	Pilitak Enterprises Ltd
PPD	Petroleum Product Division
PSPC	Public Services and Procurement Canada
SPRP	Spill Prevention and Response Plan
SWF	Solid Waste Facility
TDGR	Transportation of Dangerous Goods Regulations

1. INTRODUCTION

The purpose of this document is to present the spill response and spill prevention plan in detail for the construction project of the new harbour Aric Bay, Nunavut.

The construction project was awarded to Pilitak Enterprises Ltd (PEL) in February 2026 by Public Services and Procurement Canada (PSPC) for the Department of Fisheries and Ocean (DFO). At the end of August 2026, heavy equipment, camp facilities and material will be delivered by sealift to Arctic Bay. The project consists mainly of the construction of a new breakwater with fixed wharf, a boat launch ramp, small craft floating docks laydown area and lighting. The new marine infrastructure will be constructed during the summers of 2027, 2028 and 2029 while preparation work will be carried out during the fall of 2026.

This spill response and prevention plan for the project includes descriptions of the safe storage and handling of the various consumables to be used (diesel, jet fuel, gasoline, and lubricants), as well as the procedures to follow in the event of a spill in different environments. This plan will be in effect starting in August 2026 and will be updated as needed.

1.1 ADDITIONAL DOCUMENTATION

The latest version of the following documents issued for the current project shall be used conjointly with the present Plan:

Document	**Current Revision**
Contract specifications and drawings	Specifications (IFT) Drawings (IFC)
Construction Environmental Management Plan (CEMP)	Rev. 2
Contractor Construction Environmental Management Plan (CCEMP)	Rev-01
Traffic Management Plan	Rev-01
Sediment and Erosion Control Plan	Rev-00
Health and safety and Emergency Response Plan	Rev-00
Archeological Resource Discovery Plan	Rev-00
Wildlife Protection and Monitoring Plan	Rev-00

The conditions of the following licences and permits issued for this project shall be complied with:

Permit/licence	
Nunavut Planning Commission (NPC)	No. 149437
Nunavut Impact Review Board (NIRB)	No. 21UN004
Nunavut Water Board (NWB)	8BCABH2125
Fisheries Act Authorization (FAA)	20-HCAA-00155
Environment and Climate Change Canada (ECCC)	PNR-00214-1
Transport Canada (TC)	2021-603772
Natural Resources Canada (NR Can)	To be issued

2. CONSUMMABLES ON SITE

This section describes the consumables to be used on site. Only a brief description of the products is provided here. For a more detailed and comprehensive description, please refer to the safety data sheets in Appendix 1.

2.1 DIESEL FUEL / JET FUEL

Typical Physical and Chemical Properties:

- Appearance: Clear, yellow, or red
- Flashpoint: 40°C (diesel), -25°C (jet)
- Odour: Petroleum
- Pour point: -50°C to -6°C
- Solubility: Insoluble
- Viscosity: Not viscous
- Vapour: Will sink to ground levels
- Specific gravity: Floats on water (0.8 to 0.9)

Safety Measures/Warnings:

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

Personal Protection:

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles such as Nitrile, PVC, and Viton which are suitable materials
- Do not use natural rubber or Neoprene
- Wear a full-face organic vapour cartridge respirator where oxygen is adequate

Precautions:

- Monitor for explosive atmosphere

- Avoid contact with strong oxidizers (e.g., nitric acid, sulphuric acid, chlorine, ozone, peroxides) and eliminate ignition sources
- Restrict access to the area and work upwind of the spill.

2.2 GASOLINE

Typical Physical and Chemical Properties:

- Appearance: colorless
- Flashpoint: -50 °C
- Odour: Petroleum
- Freezing point: -60°C
- Solubility: Insoluble
- Viscosity: Not viscous
- Vapour: Will sink to ground level
- Specific gravity: Floats on water (0.7-0.8)

Safety Measures/Warnings:

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

Personal Protection:

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles Nitrile, PVC, and Viton are suitable materials
- Do not use natural rubber or Neoprene

Precaution:

- Monitor for explosive atmosphere
- Eliminate ignition sources
- Restrict access to the area and work upwind of the spill.
- Avoid contact with strong oxidizers (e.g., nitric acid, sulphuric acid, chlorine, ozone, peroxides)

2.3 HYDRAULIC OIL

The heavy equipment used for works in the water will function with a bio-hydraulic fluid (Panolin HLP Synth). Other equipment will use regular hydraulic oil (T04 10W). The procedures in case of spill remain the same.

Typical Physical and Chemical Properties:

- Appearance: Straw yellow liquid
- Flashpoint: 215°C
- Odour: Petroleum
- Pour point: -25°C
- Solubility: Generally Insoluble
- Viscosity: Medium
- Vapour: Few vapours emitted
- Specific gravity: Floats on water (0.9)

Safety Measures/Warnings:

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

Personal Protection:

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles Nitrile, PVC, and Viton are suitable materials
- Do not use natural rubber or Neoprene

Precaution:

- Avoid excessive heat, which can cause formation of vapours
- Avoid contact with strong oxidizers (e.g., nitric acid, sulphuric acid, chlorine, ozone, peroxides)
- Eliminate ignition sources
- Restrict access to the area and work upwind of the spill.

2.4 LUBE OIL

Typical Physical and Chemical Properties:

- Appearance: amber liquid
- Flashpoint: 190°C - 220°C
- Odour: Petroleum
- Pour point: -35°C - -40°C
- Solubility: Generally Insoluble
- Viscosity: Medium
- Vapour: Few vapours emitted
- Specific gravity: Floats on water (0.9)

Safety Measures/Warnings:

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

Personal Protection:

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles Nitrile, PVC, and Viton are suitable materials
- Do not use natural rubber or Neoprene

Precaution:

- Avoid excessive heat, which can cause formation of vapours
- Avoid contact with strong oxidizers (e.g., nitric acid, sulphuric acid, chlorine, ozone, peroxides)
- Eliminate ignition sources
- Restrict access to the area and work upwind of the spill.

3. STORAGE AND REFILLING

All fuel (jet fuel and gasoline) required for the project will be supplied by the Petroleum Products Division (PPD) from the tank farm facility located at the east end of the hamlet, as shown in **Figure 3.1**. Gasoline and fuel distribution are managed by the local PPD agent.

As a contingency measure, a 60,000 L dyke tank will be installed next to our maintenance facilities, on the east side of the community tank farm. A 4,633 L dyke tank will also be installed at the quarry processing area to support the screening and crushing operations. The final tank location will be confirmed once the screening and crushing units have been installed.

Figure 3.1: Fuel storage in the industrial area

3.1 GROUND STORAGE

a. Diesel (motive or P-50) /jet fuel

According to what will be available from PPD, diesel or jet fuel or a blend of both products will be used for heavy equipment.

One aboveground horizontal dyke tanks CAN/ULC S653 of a capacity of 4,633 litres will be installed at the quarry processing area.

One aboveground horizontal dyke tanks CAN/ULC S653 of a capacity of 60,000 litres will be installed beside our maintenance facilities, on the east side of the community tank farm.

All tanks comply with CEPA storage tank systems for petroleum products regulations and applicable territorial regulation for temporary fuel tanks. They will be also registered with Environment Canada Federal Identification Registry for Storage Tank Systems.

The storage tanks will be visually inspected daily by users. Any spill, leak, or tank damage shall be reported immediately to the Site Superintendent and the EM. Monthly inspections will be carried out on the following components:

Exterior Tank Condition

- corrosion
- pitting
- dents
- shell deformation
- weld cracks
- leaking seams
- blistering paint/coating failure
- staining indicating seepage
- bottom shell area
- supports/saddle contact points
- fittings/nozzles

Secondary containment

- containment space intact
- no liquid in interstitial space
- containment vents unobstructed

- no signs of inner tank failure

Foundation & supports

- settling
- tilting
- corrosion at saddles/legs
- water accumulation under tank

Any problem or potential issue identified during an inspection shall be reported to the site superintendent for immediate corrective action. Inspection reports will be maintained and kept on file at the site office. Off-season inspections will be carried by the off-season guard.

b. Gasoline

All gasoline required for the project will be supplied by PPD from the existing hamlet gas station. Small quantities of gasoline for light equipment and the boat motor will be stored in 5-gallon jerry cans inside a locked marine container.

c. Lubricants and antifreeze

All the lubricants and the antifreeze for the equipment will be sent in 205L drums. Lubricant and antifreeze drums are stored into a marine container located beside the maintenance garage. The marine container will serve as secondary containment for the drums and will be regularly inspected for leaks and equipped with adequate containment measures.

3.2 MARINE STORAGE

a. Diesel (motive or P-50) /jet fuel

Two double-wall ULC-S601 utility tanks for diesel will be installed on the dredging barge. Each tank has a capacity of 4,600 L and were constructed to be lifted full.

b. Gasoline

One double-wall ULC-601 utility tank for gasoline will be installed on the dredging barge. The gasoline tank has a capacity of 4,600 L and was constructed to be lifted full.

The three TransCube Global Model 50TCG tanks are in new condition. They are manufactured and certified as UN Intermediate Bulk Containers (IBCs) for the transportation of petroleum products and are fully compliant with Transport Canada Transportation of Dangerous Goods

(TDG) Regulations. The tanks are specifically designed to be transported and lifted when fully loaded, ensuring safe handling during site operations.

The tanks will be visually inspected before each use. A monthly inspection will be performed including the tank body, secondary containment, vents, valves, fittings, hoses, pump cabinet, access lid, fuel gauge, placards, lifting points, and general condition of the unit. Any leak, spill, damage, missing marking, defective valve, damaged vent, fuel accumulation in the containment area shall be reported immediately to the site superintendent and the EM. Inspection reports will be maintained and kept on file at the site office.

3.3 REFUELING VEHICLES AND GROUND EQUIPMENT

a. Diesel /jet fuel

Heavy equipment and vehicles using diesel or jet fuel will be refueled using a fuel truck with a capacity of 10,000 L. The fuel truck will be refilled directly at the tank farm in accordance with PPD procedures. A 995 L fuel tank will be installed in the bed of a pickup truck to refuel heavy equipment when the fuel truck is unavailable or when equipment is located in areas that are difficult to access. Both fuel delivery vehicles are equipped with their own spill kits.

Only authorized and trained employees are permitted to operate the fuel truck. The following procedure shall be followed when refueling vehicles or equipment:-

- Before starting a fuel truck run, make sure to do the truck routine inspection.
- Verify the fuel level in the tank.
- Verify under the vehicle for the presence of fuel leak.
- Make sure that the spill kit is on the vehicle.
- Turn on the battery disconnect switch.
- Drive close to equipment to be fuelled and make sure to be parked on stable ground.
- Put the truck in neutral and activate the parking brake.
- Put the clutch on and engage the PTO. Once the PTO is correctly engaged, a sound alarm can be heard, and a bleeping light can be seen below the driver's sun visor.
- LEAVE THE ENGINE RUNNING ON IDLE. DO NOT INCREASE THE MOTOR RPM.
- Wear your PPE (hard hat, safety glasses, safety boots and work gloves) before exiting the fuel truck.
- Do not smoke when fueling vehicles, equipment, and containers.
- The engine of the equipment or vehicle to be refueled must be turned off.

- Unroll the hose to reach out the vehicle fuel tank to be refilled and inspect the hose for damage prior starting the refueling operation.
- Place drip trays or absorbent pads beneath connections when practical.
- Remove fuel cap, insert nozzle and squeeze trigger, wait till tank is full release trigger. KEEP YOUR HAND ON THE HANDLE AT ALL TIME. BE AWARE OF ANY UNUSUAL NOISE.
- Make sure that no fuel remains in the nozzle and wipe out with a rag if needed.
- Turn-off the PTO
- Roll back the hose on the dispenser. Make sure that the hose is not stuck, and no sharp objects could damage the hose before engaging the hose reel.
- BEFORE MOVING THE TRUCK, MAKE SURE THAT THE PTO IS OFF.
- TWO EMERGENCY SHUT-OFF BUTTON ARE LOCATED AT THE BACK THE TRUCK, ONE ON EACH SIDE OF THE HOSE DISPENSER.
- A spill kit is located inside the close truck box located on the driver side and identified with a yellow sticker “Spill Kit’’
- At the end of the fuel run, park the truck at the same location, beside the garage. Verify under the vehicle for the presence of fuel leak. Turn off the battery disconnect switch.

Only authorized and trained employees are permitted to operate the pickup truck equipped with an in-bed fuel tank for refueling equipment. The following procedure shall be followed when refueling vehicles or equipment:

- Park the pickup and equipment on stable ground whenever possible.
- Wear your PPE (hard hat, safety glasses, safety boots and work gloves).
- Park the pickup truck and equipment safely.
- Set parking brakes on both vehicles.
- Shut down the equipment and the pickup truck engines.
- Do not smoke when fueling vehicles.
- Unroll the hose to reach out the vehicle fuel tank to be refilled and inspect the hose for damage prior starting the refueling operation.
- Place drip trays or absorbent pads beneath connections when practical.
- Turn on the fuel pump.
- Remove fuel cap, insert nozzle and squeeze trigger, wait till tank is full release trigger. KEEP YOUR HAND ON THE HANDLE AT ALL TIME. BE AWARE OF ANY UNUSUAL NOISE.
- Avoid overfilling the equipment fuel tank.
- Stop the pump.
- Make sure that no fuel remains in the nozzle and wipe out with a rag if needed.

- Return the nozzle to its holder.

b. Gasoline

All gasoline vehicles will be refilled directly at the hamlet gas station located at the tank farm facility. The refilling is done by the gas station employees according to PPD's regulations.

3.4 REFUELING MARINE EQUIPMENT

When one of the two fuel tanks installed on the dredging barge requires refilling, it will be removed using the onboard crane and transferred to the service barge. The service barge will transport the tank to the temporary wharf, where it will be lifted onto the wharf for refuelling. Diesel fuel will be delivered and transferred to the tank by a fuel truck at the temporary wharf. Following refuelling, the tank will be lifted back onto the service barge and transported to the dredging barge. The tank will then be lifted into position and reinstalled on the dredging barge using the onboard crane.

The gasoline tank will be transferred from the dredging barge to the service barge, as described above, and transported to the temporary wharf. A 900 L in-bed gasoline tank installed in the back of a pickup truck will be used to refill the 4,600 L utility tank. The in-bed tank will be refilled at the gas station.

The tugboat and the service boat will be refueled directly from the dredging barge. The utility tanks are equipped with retractable hose reels.

When transferring fuel or gasoline to or from vessels, the following procedure shall be adhered to:

- Avoid transfers in rough seas, strong currents, or lightning risk.
- Make sure Spill kits are available near transfer points.
- Secure the vessel/barge with proper fendering.
- Minimize movement: Account for waves and tide.
- Shut off the engine.
- Inspect the hose for damage before fueling.
- Ensure crew can safely monitor hoses and connections.
- Begin at low flow rate.
- No unattended operations — crew must remain present at all times.
- Watch for hazards: Fuel odors or vapor buildup, vessel shifting or line tension changes.
- Drain hoses: Safely clear remaining fuel into receiving tank.

3.5 SEWAGE HANDLING

Sewage wastewater generated by camp operations and by the portable toilets (located at the site office, quarry, and dredging barge) will be collected and disposed of by the Hamlet's sewage collection service.

At the camp, three sewage holding tanks will require regular emptying and will be incorporated into the Hamlet's daily sewage collection schedule. For sewage generated by the portable toilets, service requests will be made to the Hamlet as required. The portable toilet located on the dredging barge will be transported to the temporary wharf, where it will be emptied by the Hamlet's sewage truck.

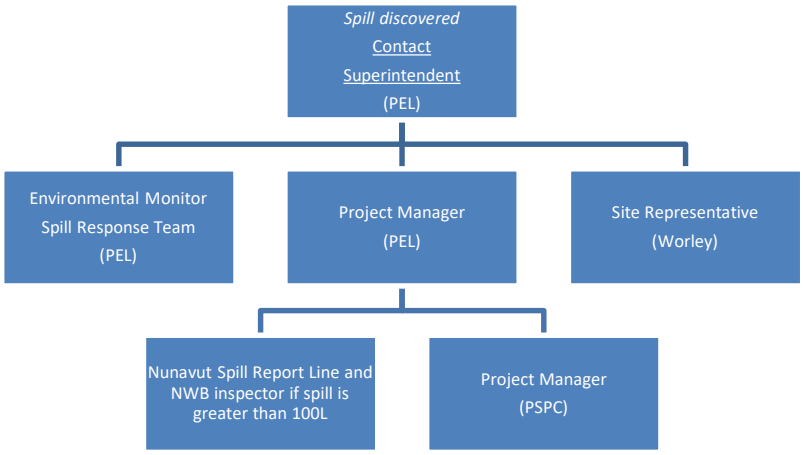
Sewage wastewater spill, when over 100 L or for any spill occurrence near or in an open water body, shall be reported to Nunavut Sill Report Line.

4. PROCEDURES IN CASE OF SPILL

Spills have the potential to cause severe environmental damage. Workers must ensure that any spills are handled with great care and addressed promptly to minimize the risk of escalation and to reduce the environmental impacts.

4.1 LINE OF COMMUNCATION

No matter the size of the spill, it must be reported as soon as possible to the site superintendent and the environment monitor who will be in charge of the spill response team. The following line of communication must be applied:



Spills of any other reportable products or substances shall also be reported immediately. Refer to the table “Schedule 1 – Reportable Quantities for NT–NU Spills” included in the Appendix 2 for reportable products. Diesel/oil spill on land greater than 100L must me reported to the Nunavut Spill Report Line and to the NWB inspector. Any spill near or into a water body, regardless of the quantity of releases of harmful substances, must be reported immediately to the same authorities.

4.2 ERGENCY PHONE NUMBERS

ORGANIZATION	NAME	PHONE (BUSINESS HOURS)	PHONE (AFTER HOURS)
PILITAK	Main office	(866) 781-0704	
	John Frasser Site superintendent	(902) 561-6105	(902) 561-6105
	Manuel Bellemare Site superintendent backup	(819) 531-7469	(819) 531-7469
	Jean-Marc Ballard Environmental Monitor	(418) 208-1856	(418) 208-1856
	Natasha Giroux Off site safety Manager	(867) 979-1166	(418) 572-0880
	TBC Site Safety Officer	TBC	TBC
	Chloé-Eve Sainte-Marie Site Clerk	(514) 632-6324	(514) 632-6324
	TBC Camp Manager	TBC	TBC
	TBC Master Mechanic	TBC	TBC
	François Bourassa Project manager	(866) 781-0704	(418) 930-0850
RCMP		(867) 980-0123	
HEALTH CENTRE		(867) 439-8816	
FIRE DEPARTMENT		(867) 439-4422	
AIRPORT CARS OFFICE		(867) 439-8171	
AIRPORT MAINTAINER		(867) 439-8567	
WORKERS COMPENSATION BOARD NUNAVUT AND NWT		(867) 979-8500	
24 HOUR SPILL LINE NW/NUNAVUT		(867) 920-8130	
HAMLET OF ARCTIC BAY		(867) 439-9917	(867) 439-8260

4.3 SPILL RESPONSE MATERIAL -LAND

Complete emergency spill kits will be installed at every working site listed below:

- Quarry
- Crusher site
- Camp site
- Maintenance garage
- Construction site

Each kit is made of the following items and is stored in pre-identified 45-gallon drums:

- 3 Tyveck coveralls
- 10 pairs of disposable gloves
- 1 pair of protective goggles
- 2 x 100 absorbent pad packs
- 1 x 20kg granular absorbent bag
- 4 x 10'x 2'' diam. floating absorbent booms
- 10 yellow storage bags
- One shovel
- Rags

The fuel truck and the pickup truck equipped with an in-bed auxiliary fuel tank are each equipped with their own spill kits, containing the same materials as those described above.

All environmental supplies for the entire project, including a large inventory of hydrocarbon absorbents and emergency spill material, will be stored in a marine container beside the site office.

4.4 SPILL RESPONSE MATERIAL -MARINE

The tugboat, the service boat, the emergency boat and the dredging barge will be equipped with A spill kit in a 205 drum including the following material:

- 2 nylon rope 100'
- 3 Tyveck coveralls
- 1 telescoping boat hook
- 10 pairs of disposable gloves
- 1 pair of protective goggles
- 2 x 100 absorbent pad packs
- 10 x 10'x 2'' diam. floating absorbent booms
- 10 yellow storage bags
- 6 grapnel anchors

4.5 GENERAL PROCEDURES

This general procedure is to be followed in the event of a spill. Steps are listed in the order of importance; however, depending on the circumstances, conditions, and potential injuries, this order may need to be altered to meet specific needs.

1. Identify the product spilled and call for help:

Petroleum products to be used on site are arctic diesel, jet fuel, gasoline and lubricants. As soon as possible, advise the site superintendent and call for help when needed.

2. Assessment of dangers and hazards:

An immediate determination must be made about the direction of the spill's progress, whether downhill, on the ice, towards the water, or already in the water. As well, careful attention will be paid to the full nature of the incident; is this solely a surface contaminant, or are fumes an additional factor; are there any injuries current or possible.

3. Stop the flow at source:

Has the flow been stopped or is it still leaking? Is there an emergency Shut-off valve? Have holes in the container been patched? Is the container empty? PRECAUTION: ONLY ATTEMPT TO STOP THE FLOW IF IT IS SAFE TO DO SO.

4. Take actions to contain the spill:

Prompt containment can reduce environmental exposure and risk. Containment measures may be land or water based. Land based measures include application of sorbents, construction of berms and diversion/collection trenches. Water based measures could include dams, dykes, and floating booms.

4.6 SPECIFIC PROCEDURES FOR DIFFERENT ENVIRONMENTS

4.6.1 Spill on land

- Do not flush into ditches or drainage systems.
- Block entry into waterways and contain with earth, snow or other barriers.
- Excavate trenches to divert water or to contain the spill.
- Remove small spills with sorbent pads.

- On tundra, collect as much contamination as possible ensuring to the maximum, yet reasonably practicable extent, to minimize destruction of the root zone of the tundra grasses.

4.6.2 Spill in water

Spills on open water shall be contained as quickly as possible to limit their size and extent. Fuel and petroleum products that float on water can be contained using floating booms and absorbent materials. Containment booms should be deployed promptly to minimize the affected area. The effectiveness of booms may be reduced by wind, waves, currents, and other environmental conditions. Use absorbent booms to slowly encircle and absorb spilled material. These absorbents are hydrophobic (they absorb hydrocarbons and repel water). Once the spill has been contained, hydrocarbon absorbent pads should be used to recover the remaining free product from the water surface.

4.6.3 Spill in rivers and streams

- Prevent entry into water, if possible, by building berms or trenches.
- Intercept moving slicks in quiet areas using (sorbent) booms.
- Do not use sorbent booms/pads in fast currents and turbulent water.

Effective containment using conventional booming techniques is very difficult in streams or rivers where currents exceed 0.7 knots (0.4 m/s). At these speeds, oil becomes entrained in the water flowing under the boom, resulting in significant losses. Some improvement can be achieved in waters flowing at 1-2 knots (0.5 m/s to 1 m/s), particularly if the boom is deployed at an angle of less than 90° to the direction of 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, as they tend to float very low in the water or even sink and release oil downstream.

4.6.4 Spill on ice and snow

- Block entry into waterways and contain with snow or another barrier.
- Remove minor spills with sorbent pads and/or snow.
- Use ice augers and pump to recover diesel under ice.
- Slots in ice can be cut over slow moving water to contain oil.
- Recover all remaining spilled product with absorbent pads.

4.6.5 Spill onto a boat or into the hull of a boat

- Stop the source of the spill, if it is safe to do so, by closing valves, shutting down pumps, or uprighting damaged containers.
- Notify the site superintendent, and EM immediately.
- Eliminate all potential ignition sources in the affected area and suspend fuel transfer operations.
- Prevent the spilled product from entering the water by blocking deck drains, scuppers, and other discharge points.
- Contain the spill using absorbent pads, socks, booms, or other spill response materials available onboard.
- If fuel has entered the hull or bilge space, prevent any discharge overboard. Bilge pumps shall be shut off.
- Recover free product using absorbent materials or appropriate recovery equipment and place contaminated materials in suitable containers for further disposal.
- Pump contaminated bilge water into a holding tank.
- Dispose of contaminated water as per directions in section 4.7.
- Inspect the vessel and surrounding water for evidence of leakage or discharge.
- Report the spill in accordance with the section 4.9.

Note:
Pumping untreated bilge water into the harbour or offshore should be avoided and will often constitute a violation of the Fisheries Act.

4.7 COLLECTION AND DISOSAL OF CONTAMINATED SOIL AND MATERIAL

Once the source of the spill has been stopped and the spill response material have been installed and the spill secured, the cleanup operation needs to be initiated. Any contaminated soil will be removed and placed into *Quatrex 27* bulk bags. Empty *Quatrex* bulkbags are available in the environmental supply container located nearby the site office. For small spills, 2 *Quatrex* bags will be installed beside the maintenance garage, one for soil contaminated by oil and the other one for the soil contaminated with diesel/jet fuel or gasoline. Small spills or stained soil will be collected manually with a shovel, placed into a pale and transferred into one of the two storage bags located beside the maintenance garage. If a bag is getting filled, it will be closed, palletized, and labelled according to TDGR for off-site / off-territory disposal into a licenced facility. For larger spills, the excavator will be used to remove the contaminated soil. For small to medium

size spills, *Quatrex* bags will be loaded with contaminated soil directly beside the excavation. For larger spills, the contaminated soil will be loaded into a dump truck and transported to a temporary processing area where the it will be placed in stockpiles of less than 20 cubic meters. The top and bottom of each stockpile will be covered with polyethylene tarps. The location of a temporary storage area will be discussed with the hamlet. A soil sample will be collected from each of the 20 cubic meter stockpile and sent to the analytical laboratory to be tested. According to the analytical results, the soil could be disposed at the local solid waste facility as daily cover or loaded into *Quatrex* bags for off-site / off-territory disposal into a licenced facility.

The dirty spill response material, including used PPE, used absorbents and rags, will be collected and placed into an assigned bulk bags for off-site / off-territory disposal into a licenced facility. A bulk bag for dirty spill response material will be installed and identified properly beside the maintenance garage.

4.8 COLLECTION AND DISPOSAL OF LIQUIDS

Any product collected from a spill will be pumped into empty drum (s). A cubic meter tote tank could used as a water separator if needed. Collected product, according to their type, could be reused for heating the maintenance garage (diesel and jet fuel only) or ship off-site off-territory for disposal into a licenced facility. Any drums containing spilled product will be clearly identified, transported, and placed in a marine container located within the Hazardous Waste Temporary Storage Area (HWTSA), adjacent to the maintenance garage. The marine container(s) used for the storage of hazardous materials will be equipped with a containment liner capable of containing 110% of the stored liquid volume in the event of a spill.

The HWTSA will be located at a minimum of 31 meters away from the any water body and will be clearly identified. The inventory of hazardous material will be kept to date by the environmental monitor and daily inspections of the HWTSA will be done to ensure that no accidental release could possibly makes its way into a water body. The hazardous material will be shipped off-site by sealift at the end of each working season. The proper waste manifest and transportation documents will be prepared by the environmental monitor.

The potential contaminated or hazardous water will be collected and temporary stored into drums or bigger devices, according to the volume involved. For larger quantities, a temporary basin made of RPE liner could be built. The water will be tested to evaluate the residual concentrations of the spilled product. According to the analytical results, the collected water will be containerized into drums for off-site disposal, treated on-site or release if it meets the

applicable criteria. Drums containing contaminated or hazardous water will be stored into the HWTSA before being shipped off-site.

4.9 REPORTING

Spills of other products shall also be reported. Refer to the table "Schedule 1 – Reportable Quantities for NT–NU Spills" included in the Appendix 2 for reportable products.

For every spill, pictures must be taken during and after the cleanup process. The GPS coordinates of the spill location must be recorded. All collected information and pictures will be used for the spill report. Spills of 100 litres and less will be recorded on the Site Spill Log, reported in the weekly report and within the annual license reporting. Any spill grater than 100 litres must be reported to the Nunavut 24-hour spill report line (see the attached from in Appendix 2). The person reporting the spill must provide as much of the following information as possible. Please note that the operators at the Hotline are NOT spill management experts. They can only relay information to the appropriate authorities/protection agencies. Reportable information includes but is not limited to the following:

- Date and time of spill;
- Coordinates of the spill location.
- Direction spill is moving (or if it has stopped);
- Name and phone number of persons close to the location of the spill;
- Type of contaminant spilled and quantity spilled;
- Cause of spill;
- Whether the spill is continuing or has stopped;
- Description of the existing containment;
- Actions taken to recover, clean-up and dispose of spilled contaminant;
- Name, address and phone number of person reporting the spill;
- Name of person in charge of management or control at time of spill;
- Photographs documenting the cleanup process and the steps involved.

The spill report must be filled and sent to the NT-Nu spill Report email address spills@gov.nt.ca with a copy to the following individuals:

- PSPC, Mitchell Partaker Mitchell.Partaker@tpsgc-pwgsc.gc.ca
- Worley, Andre Dratwa andre.dratwa@worley.com

5. SPILL PREVENTION

The prevention is the first and the most effective measure to avoid potential spills and it should be a priority for everyone.

5.1 SAFE STORAGE

All liquid that could be potentially spill should be stored in a way to have a double containment, as per applicable regulations. Diesel storage tank installed on site are dyke tanks CAN/ULC S653 or double wall tanks CAN/ULC S601. Oil and antifreeze drums are stored into a marine container. When drums are temporary stored outside, they should be installed on wooden pallet. Liquid storage should be done at least 31 meters away from any water body. The proper product must be stored into the proper container with the applicable identification. Gas and diesel jerricans shall be stored in lockable and vented area.

5.2 SAFE HANDLING

Simple measures could help to prevent spills, especially when handling diesel and gasoline. When using the dyke tank to refuel a vehicle, the following procedure shall apply:

- Park the vehicle adequately and turn off the engine;
- Turn on the power switch to activate the fuel pump;
- Remove the nozzle from the tray and place it into the filling device of the vehicle;
- Place drip trays or absorbent pads beneath fuel port, when practical.
- Push the handle's lever and monitor often the fuel level in the tank;
- Stay beside the handle during the entire refueling operation;
- When refueling is completed, place the nozzle slowly back in the tray to avoid fuel dropping;
- Turn-off the power

Only the authorized and trained drivers can operate the fuel truck and the pickup equipped with a in-bed auxiliary tank. Any refueling for ground activities shall be done at least 31 meters away from any water body. At the end of the working shift, the fuel truck shall be parked beside the maintenance garage, always at the same location.

5.3 MAINTENANCE OF EQUIPMENT

A good preventive maintenance of vehicles and equipment will help to prevent potential spills. Any signs of malfunctioning equipment, including a small liquid leak, shall be immediately

reported to the head mechanic. When a small leak cannot be repaired immediately, the vehicle must be parked over a spill tray.

5.4 SAFE OPERATION OF VEHICLE AND EQUIPMENT

The safe operation of vehicles and equipment will help prevent potential incidents and/or accidents that could lead to a spill. The traffic management plan, including speed limits, must be followed by everyone. Considering that work will be carried out in or near water, equipment operators must exercise increased caution and remain attentive when handling rocks or materials that could damage hydraulic hoses. In the event that an oil leak is observed on any component of the equipment, work must cease immediately, and the source of the leak must be identified and repaired.

6. TRAINING

6.1 SPILL RESPONSE

All employees working on the project will have to attend the worker orientation seminar. Through this seminar, the spill response plan will be reviewed and explained to everyone. The employees will be trained in the safe operation of all machinery and tools, as well as in the handling of materials to help prevent and respond to spills safely, in a timely and effective manner. The content of a spill kit will be showed to the workers and a demonstration will be done for explaining how to use the equipment. Training will also include initial spill response in the event of a spill. The spill response team will be also determined and the member list will be posted.

APPENDIX 1
ARCTIC BAY HARBOUR CONSTRUCTION

APPENDIX 1

SAFETY DATA SHEETS
Updated SDS binders will be posted at the site office and at the maintenance garage

APPENDIX 2
ARCTIC BAY HARBOUR CONSTRUCTION

APPENDIX 2

NT-NU Spill Report Form

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

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

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR	REPORT NUMBER -
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME	☐ 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 ☐ NWT ☐ NUNAVUT ☐ 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

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION **Station operator**	EMPLOYER	LOCATION CALLED **Yellowknife, NT**	REPORT LINE NUMBER **(867) 920-8130**

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC	SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN	FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

Appendix A
Schedule 1 – Reportable Quantities for NT–NU Spills

Substance	Reportable Quantity	TDG Class
Explosives	Any amount	1.0
Compressed gas (toxic/corrosive)		2.3/2.4
Infectious substances		6.2
Sewage and wastewater (unless otherwise authorized)		6.2
Radioactive materials		7.0
Unknown substance		None
Compressed gas (Flammable)	Any amount of gas from containers with a capacity greater than 100 L	2.1
Compressed gas (Non-corrosive, non-flammable)		2.2
Flammable liquid	≥ 100 L	3.1/3.2/3.3
Flammable solid	≥ 25 kg	4.1
Substances liable to spontaneous combustion		4.2
Water reactant substances		4.3
Oxidizing substances	≥ 50 L or 50 kg	5.1
Organic peroxides	≥ 1 L or 1 kg	5.2
Environmentally hazardous substances intended for disposal		9.0
Toxic substances	≥ 5 L or 5 kg	6.1
Corrosive substances		8.0
Miscellaneous products, substances or organisms		9.0
PCB mixtures of 5 or more parts per million	≥ 0.5 L or 0.5 kg	9.0
Other contaminants, e.g. crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater, etc.	≥ 100 L or 100 kg	None
Sour natural gas (i.e., contains H_2S)	Uncontrolled release or sustained flow of 10 minutes or more	None
Sweet natural gas		
Flammable liquid	≥ 20 L	3.1/3.2/3.3
Vehicle fluids	When released on a frozen water body that is being used as a working surface	None
Reported releases or potential releases of any size that: 1. Are near or in an open water body; 2. Are near or in a designated sensitive environment or habitat; 3. Pose an imminent threat to human health or safety; or 4. Pose an imminent threat to a listed species at risk or its critical habitat	Any amount	None

Note: L = litre; kg = kilogram; PCB = Polychlorinated Biphenyls; ppm = parts per million