

# **Tulita Drilling – Spill Contingency Plan**

Plane Lake Drive Contaminant Delineation

Tulita Land Corporation Geotechnical Investigation and Combined  
Environmental Site Assessment (ESA)

Fort Norman Metis Development Corporation Geotechnical Investigation  
and Phase II ESA

Prepared for:

**Sahtu Land and Water Board – Land Use Permit Application**

Yellowknife, Northwest Territories

January 2019

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## **Prepared for:**

Sahtu Land and Water Board Land Use Permit Application  
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## **Revision 1**

**January 2019**

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## 1.0 Introduction

Wood Environment & Infrastructure (Wood), a division of Wood Canada Limited, has developed this Spill Contingency Plan (the Plan) in support of the application to the Sahtu Land and Water Board (SLWB) for a Land Use Permit (LUP) for geotechnical and environmental drilling at three project sites in the Hamlet of Tulita, NT (the Hamlet). This Plan is based upon the Environmental Emergency Regulations (E2 Regulations) that form part of the Canadian Environmental Protection Act<sup>1</sup> (CEPA) as well as the Government of the Northwest Territories' (GNWT) Department of Environment and Natural Resources' (ENR) Spill Contingency Planning and Reporting Regulations<sup>2</sup>.

### 1.1 Purpose and Scope

The purpose of this Spill Contingency Plan is to outline response actions for potential spills of any size, including worst case scenarios, for the drilling to be undertaken by Wood and all subcontractors. The Plan identifies key response personnel and their roles and responsibilities in the event of a spill, as well as the equipment and other resources available to respond to a spill. It details spill response procedures that will minimize potential health and safety hazards and environmental damage and is a reference resource for when clean-up responses are required. The Plan has been prepared to ensure quick access to all the information required when responding to a spill.

## 2.0 Spills

A spill is defined as a release of a substance that is likely to be an imminent environmental or human health hazard. In the event of a spill or other unauthorized discharge, onsite personnel should contact Wood personnel onsite (contact information: Section 3), who will determine if the spilled substances are of reportable quantity and nature. Should reporting be required Wood personnel will **immediately** report the release to the NWT 24-Hour Spill Line.

All reportable spills (and minor spills) are to be documented and should include the following information:

- Product type and approximate quantity (report "unknown" if no reasonable estimate can be made);
- Spill location including GPS coordinates if possible;
- Whether the spill is ongoing;
- Physical description: size of affected area, odour, colour, etc.; and
- Weather conditions or other factors that could impede response.

Reporting will also include information detailing the cleanup responses and any outstanding concerns or issues and may require follow up reporting. This information may be required to be reported to a land use or water licence inspector and/or included in an annual report to be submitted to fulfil requirements of a land use permit or water licence. Minor spills onsite that do not trigger reporting thresholds will be recorded and included in the final report for each project site for tracking purposes.

<sup>1</sup> Government of Canada 1999. Canadian Environmental Protection Act. S.C. 1999. C.33.

<sup>2</sup> GNWT 1993. Spill Contingency Planning and Reporting Guidelines. R-068-93



## 2.1 Reportable Spills

A spill needs to be immediately reported if it meets or exceeds the volumes outlined in Appendix A of this Plan. A spill that meets or exceeds these volumes must be reported to the NWT 24-Hour Spill Report Line at (867) 920-8130 using the NWT Spill Report Form in Appendix B of this Plan. The information submitted will be posted to the GNWT Hazardous Materials Spills Database online at: <http://www.enr.gov.nt.ca/node/3002>. By identifying and reporting spills, recovery and remediation efforts improve.

Additional information can be found on ENR's website at <http://www.enr.gov.nt.ca/en/service-categories>.

## 2.2 Minor Spills

Spills with quantities less than those outlined in Appendix A do not need to be reported immediately to the NWT 24-Hour Spill Report Line however they must be tracked and documented. Submission of information regarding minor spills may be required by a regulatory agency or authority, either immediately upon their request or on a pre-determined reporting schedule, and therefore details of every minor spill must be recorded.

If there is any doubt that the quantity of a substance spilled exceeds reportable levels outlined in Appendix A (or if the quantity is unknown), the spill will be reported to the NWT 24-Hour Spill Report Line as per Section 2.1 above.

## 3.0 Reporting a Spill

Once it has been determined that a spill should be reported to the NWT 24-Hour Spill Line, the following steps will be taken:

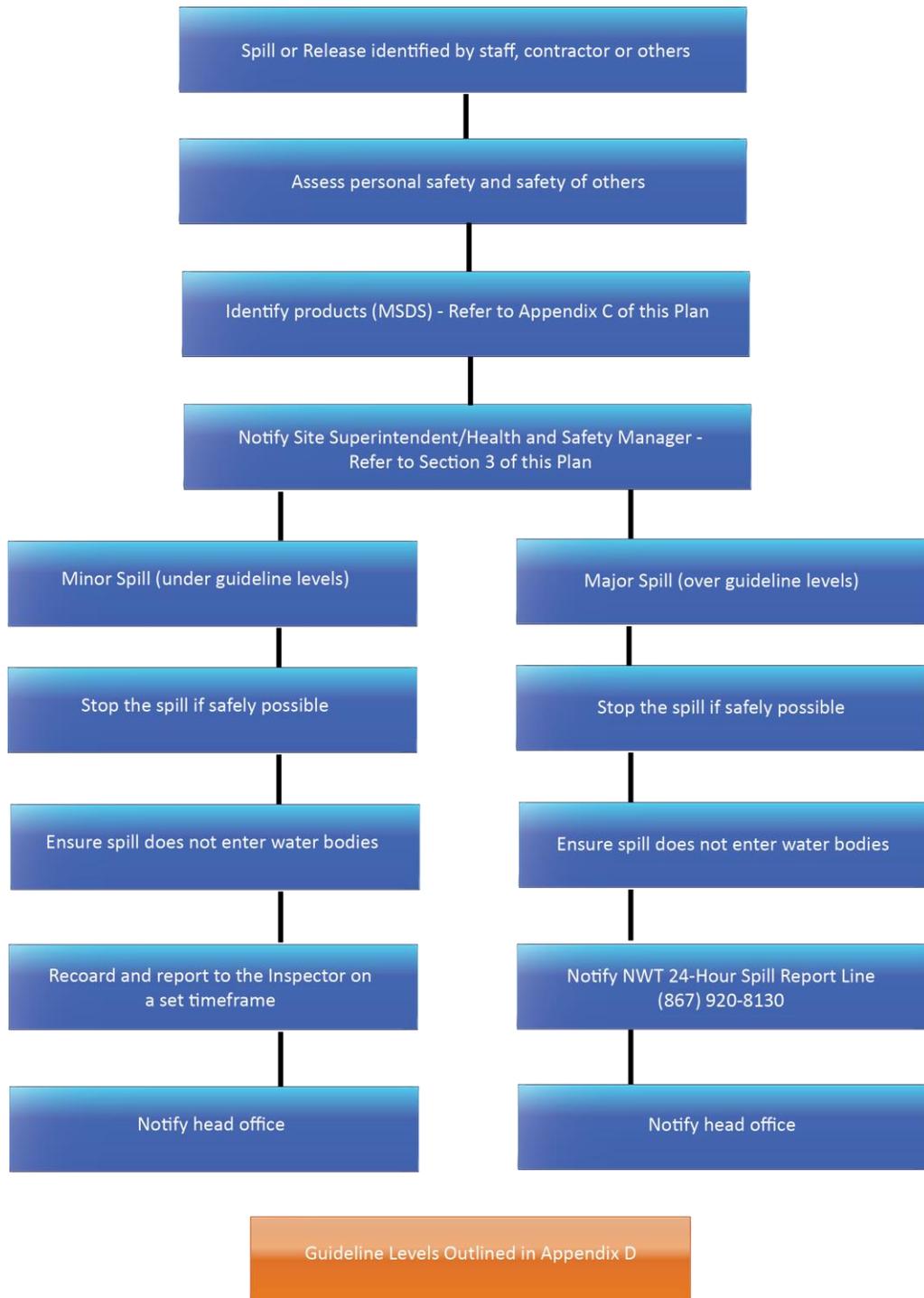
1. Wood personnel onsite will fill out an NWT Spill Report Form (Appendix A) outlining the details of the spill as outlined in Section 2.0;
2. Wood will submit the completed Spill Report Form to the NWT 24-Hour Spill Line by either fax, email, or telephone:

**Table 1: NWT 24-Hour Spill Line Contact Information**

NWT 24-HOUR SPILL LINE CONTACT INFORMATION		
Email	spills@gov.nt.ca	
Telephone	(867) 920-8130	
Fax	(867) 873-6924	
WOOD OFFICE CONTACT INFORMATION		
HSE Officer: Chuck Gordon	<a href="mailto:charles.gordon2@woodplc.com">charles.gordon2@woodplc.com</a>	
Telephone	Office	(867) 920-4140
	Mobile	(867) 445-3854

3. Review the action flow chart outlined in Figure 1: Key Response Personnel and Actions (next page); and
4. Initiate Action Plan Procedures as described in Section 7.0.





**Figure 1: Key Response Personnel and Actions**

(Figure source: Mackenzie Valley Land and Water Board, 2019)



### 3.1 Spills Involving Danger to Human Life

In the event of a spill involving danger to human life, the Hamlet's Harriet Gladue Health Centre will be contacted to provide emergency medical response. The Health Centre is located within a maximum of 150 m of each project site. Wood will also prepare project-specific Health and Safety Plans (HASP) for the work as part of Wood's corporate HSE program.

**Table 2: Harriet Gladue Health Centre Contact Information**

REGULAR HOURS	AFTERHOURS
(867) 588-3333 / 4251	(867) 374-0004

The Hamlet Office will also be contacted in the event of a reportable spill.

Tulita is serviced by a cellular telephone network, therefore additional communication methods, such as a satellite phone or two-way radios, are not required.

## 4.0 Project Details

Wood has developed this Spill Contingency Plan as required under Wood's corporate Health, Safety, and Environmental (HSE) program and in accordance with all applicable territorial and federal regulations and guidelines. This Plan has been prepared as part of a LUP application to be submitted to the SLWB for three Geotechnical and/or Environmental drilling projects in Tulita, NT, to be executed by Wood.

### 4.1 Site Descriptions

The three projects being proposed are all separate work however they will all be conducted consecutively by Wood and are located within short distances of each other. Figure 1 indicates the overall location for all three sites while showing the location of each within the Hamlet. There are no waterbodies immediately adjacent to the sites with the nearest waterbody being the Mackenzie River, 130 m south of the southernmost site. A wetland that appears to drain to the west, is present approximately 90 m north of the northernmost site. Otherwise there are no nearby waterbodies to be affected by any potential spills at any of the sites.

The following sections provide details as to the individual projects/sites:

#### 4.1.1 Plane Lake Drive – Environmental

The site encompasses a section of land between the access point to the lot containing the Hamlet Office (from Plane Lake Drive) and the intersection of Plane Lake Drive and Mackenzie Drive. The site contains known PHC impacted soils, as was confirmed by Wood during an intrusive excavation program conducted in 2018 on behalf of the GNWT. It is believed the source of contamination is an historic pipeline once buried at the site and/or storage tanks located west of the site. The site location can be seen on Figure 1 attached to this Plan and likely comprises an area of approximately 14 m by 20 m however the extent of contamination is unknown and will be delineated as part of this drilling work. Work is anticipated to occur in the properties immediately west of Plane Lake Drive, in Plane Lake Drive, and in Mackenzie Drive. Drilling east of the roadway will not occur due to the presence of a fibre optic cable buried there.



#### 4.1.2 Tulita Land Corporation Site – Geotechnical & Environmental

The TLC are in the process of purchasing Lot 253, Plan 4737, an approximately 3266 square meters (m<sup>2</sup>) rectangular lot located north of the Hamlet Office in Tulita (see Figure 1). While no plans have been finalized as to the development of the lot, the TLC has indicated they plan to construct buildings onsite and as such are requesting a Geotechnical Investigation of the site.

An ESA conducted by Wood in 2018 of the lot immediately south of the Hamlet Office (Lot 104, Plan 2836) indicated the potential for PHC impacts at that location (proposed new Health Centre) from the historic pipeline and/or tanks as mentioned in Section 2.2.1. Given the close proximity of Lot 253 to the Plane Lake Drive site, Wood believes that an ESA including intrusive sampling, is required at Lot 253.

#### 4.1.3 Fort Norman Metis Development Corporation Site – Geotechnical & Environmental

The FNM currently have an office and storage trailer located at their site, located immediately south of the intersection of Plane Lake Drive and Mackenzie Drive (Lot 17-1, Plan 758). They have requested that Wood conduct a Geotechnical Investigation at the site to aid in the planning for a new, approximately 269 m<sup>2</sup> office building on the approximately 3210.5 m<sup>2</sup> lot.

In the fall of 2018, the FNM contracted Wood to conduct a Phase I ESA of the site to satisfy the requirements of a financial institution in support of securing funding for the redevelopment of the site. The results of the Phase I ESA indicated the potential for contamination to be present onsite due to its close proximity to the contamination present in Plane Lake Drive and as such a Phase II ESA is required.

### 5.0 Inventory of Spill Response Resources

#### 5.1 Fuel and Hazardous Materials

Table 3 identifies the areas where fuels and hazardous materials are stored onsite (fuels, lubricants, antifreeze, cleaning supplies etc.). Material Safety Data Sheets (MSDS) will be provided for all hazardous materials and chemicals used onsite and filed in an MSDS binder located with Wood employees. These binders will be available on-site always. MSDS are also attached to this Plan in Appendix C.

**Table 3: Fuel and Hazardous Materials Storage Areas**

MATERIAL	TYPE OF STORAGE CONTAINER	AMOUNT TYPICALLY ONSITE	MAXIMUM AMOUNT ONSITE	USE
Diesel	Tidy Tank (at Rig)	410 L	410 L	Refuelling Drill Rig
Lubricants / Oils / Greases	Plastic jugs, bottles, pails, etc. (at Rig)	<20 L	20 L	Servicing the Drill Rig

As the project work to be executed is very minor it is not anticipated that any wastes will be generated during the work that cannot be disposed of at the Hamlet Landfill (i.e. disposable gloves, groundwater well bailers, packaging, etc.). Should maintenance be required on the drill rig that requires the disposal of any hazardous materials, they will be disposed of as per applicable regulations. The following outlines how hazardous materials should be handled in the unlikely event they are generated onsite:



**Waste oil** will be stored in empty 205L drums and will be shipped off-site for processing at an appropriate waste facility (and as further described in the associated Waste Management Plan). Used oil can be used as feedstock for a used oil furnace if the testing and other conditions in the Used Oil and Waste Fuel Management Regulations Plain Language Guide (attached) are met. Used oil can be stored in clearly labelled good quality tanks or drums. Do not let drums or pails be contaminated with glycol or solvents. Do not accept excessive volumes from the industrial/commercial sector.

**Lead-acid batteries** are commonly found in vehicles. Both the lead and the acid are contaminants. Batteries in good condition can be stacked on pallets and banded or shrink-wrapped for transportation when enough have been collected to make shipping worthwhile. Store broken batteries in a pail or other container to prevent spills and avoid contact with battery acid. Further details can be found in ENR's document Guideline for the Management of Waste Batteries (attached).

**Glycols:** Waste antifreeze (Ethylene Glycol) is generated from vehicle maintenance. Propylene glycol is more common to the industrial/commercial sector where it is used for heating larger buildings. Glycols can be stored in pails or drums until the quantity warrants shipping. Further details can be found in ENR's document Guideline for the Management of Waste Antifreeze (attached).

**Hydrocarbon-contaminated soil, snow, and water** that result from spills or contaminated sites are managed as a hazardous waste in the NWT. Hydrocarbons include diesel, heating oil, gasoline, and other petroleum products. Communities wanting to store or treat contaminated soil, snow, or water may need to amend their water licence. Contact ENR for guidance on developing appropriate facilities.

**Oily debris** can consist of rags, sorbent material, or containers used to store or clean up oil. These materials are contaminants that cannot be added to a typical soil treatment facility but need to be kept segregated from other waste.

**Waste Fuel:** Residents generate waste fuel from the use of gas-powered equipment and need a local disposal option. Waste fuel from residents can be bulked into UN-approved steel drums at Household Hazardous Waste collection events, or on a daily basis. The decision to accept waste fuel from residents daily requires appropriate screening methods to screen out incompatible materials from residents and excessive volumes of fuel or solvents from the industrial/commercial/institutional sector.

## 5.2 Spill Kit Locations and Contents

One small, 5-gallon Universal spill kit will be in the Wood pickup truck for the duration of the projects. This kit will include:

- 10 sorbent pads;
- 2 sorbent socks;
- 1 disposal bag;
- 1 pair nitrile gloves; and
- 1 pair of safety goggles.



Wood will also have a roll of Universal sorbent pads in the pickup in addition to shovels, soil bags, garbage bags, duct tape, caution tape, a utility knife, rakes, etc. One pair of disposable coveralls will also be included in Wood’s emergency spill response equipment and all personnel onsite will be required to carry a half-mask respirator with appropriate filter cartridges for use in the event of a spill. Any use of spill response equipment will be documented in the spill reports and deliverables for the projects as discussed previously.

The successful drilling company will also be required to provide emergency spill response equipment on their rig. This information will be included in this Plan upon awarding of the contract to the drilling company.

### 5.3 Heavy Equipment for Spill Response

In the event a spill occurs at a project site that requires use of heavy equipment or supplies not contained in the spill kit, Wood will immediately contact MYB Construction Ltd. (MYB) of Tulita to provide the needed equipment. This could include an excavator, a loader, a dozer, or a vacuum truck, or could include items such as plywood, traffic control signs, barriers, etc. Additionally, the Hamlet could provide heavy equipment if available.

### 5.4 Offsite Resources

**Table 4: Offsite Resources and Contact Information**

NAME	ORGANIZATION	CONTACT INFORMATION	NOTES
NWT 24-Hour Spill Report Line	GNWT	Phone: (867) 920-8130 Fax: (867) 873-6924	Triggers multiple governmental and private organizations for spill response
CANUTEC 24-Hour Emergency	Canadian Transport Emergency Centre – TDG Directorate (Transport Canada)	Phone: (613) 996-6666	Triggers multiple governmental and private organizations for spill response for dangerous goods
Inspector	GNWT (Identified on Land Use Permit)	Directory: <a href="http://rdirectory.gov.nt.ca/rDirectory.aspx">http://rdirectory.gov.nt.ca/rDirectory.aspx</a>	Will contact the GNWT Inspector for this Project, located in Norman Wells, NT
Environment Canada	Yellowknife	Phone: (867) 669-4725	Environmental Emergency Line
Environmental Protection Division	GNWT, Sahtu Region	Phone: (867) 587-3500	For spills, fires, and wildlife emergencies
Environmental Health Officer	GNWT, Yellowknife	Phone: (867) 767-9066 ext 49262 (business hours); Phone: (867) 920-8646 (afterhours)	For emergencies affecting public health
RCMP	Tulita	(867) 588-1111	
Fire Department	Tulita	(867) 588-2222	
Ambulance	Tulita	(867) 588-4251	



## 6.0 Preventative Measures to Reduce Risks of Spills

Planning for an emergency situation is imperative, due to the nature of the materials stored onsite as well as the remoteness of the project sites. Adequate training of staff and contractors is paramount. Spills may be the result of any of the following:

- Leaks, ruptures, material contraction or expansion, or material failures;
- Mechanical failure;
- Improper storage;
- Vandalism;
- Human error; and/or
- Acts of nature.

This section of the Spill Contingency Plan outlines preventative measures to be taken by Wood and subcontractors when receiving, handling, storing, using, transferring, or disposing of fuels and hazardous materials onsite.

All fuels and hazardous materials will arrive to site via Winter Road. Personnel handling fuels and hazardous materials onsite will be required to wear all necessary personal protective equipment (PPE) including but not limited to protective flame-retardant clothing, steel toe boots, reflective vests, hard hats, gloves, and safety glasses. PPE requirements will be set forth in the project HASPs.

All onsite fuel and hazardous material storage areas should be selected in consultation with the land use inspector. These areas will be located more than 100 m from any watercourse. If this buffer cannot be achieved, another area will be selected that provides the least amount of risk to watercourses and the receiving environment, while maintaining operational suitability. These areas/locations will be regularly inspected by Wood employees, or designate, to ensure proper functioning and regulatory compliance.

Fuel storage areas will have secondary, 100% containment (e.g. be lined and bermed or double walled fuel tanks or containers). Smaller quantities of standard hazardous materials (e.g. vehicle and engine maintenance materials) will also be available onsite and stored in a secure manner with secondary containment (i.e. in a bin or on sorbent pads). To avoid any leaks during fuel transfers, all fuel lines, hoses, fittings and valves are to meet or exceed industry standards. Spill kits will be located wherever fuels and hazardous materials are stored or used, namely at the drill rig and in Wood's pickup truck.

Wood personnel will conduct daily visual inspections. The inspections will be documented to ensure that all fuel and hazardous material storage areas are inspected, including, the following:

- Leaks and any damages to the fuel and hazardous material storage containers and transfer equipment;
- Stained or discolored soils within and around the fuel/hazardous material storage areas and motorized equipment; and
- Lids and caps should be checked for tight seals.



## 7.0 Key Response Personnel and Duties

In general, all personnel onsite will be responsible for the following duties and actions in the event of an emergency:

- Ensure the safety of all persons near the site. If necessary, immediately remove personnel from the area affected by the spill and restrict further access;
- Make every effort to identify the spilled product;
- Consult appropriate MSDS and determine principal types of health and safety hazards associated with the spilled product(s) or material(s);
- Maintain open lines of communication;
- Wear appropriate PPE when working on or near the spill;
- If safe to do so, stop the leak(s);
- Try to contain the spill;
- Clean up spilled material; and
- Dispose of materials (product spilled and clean up materials) in an appropriate and approved manner.

## 8.0 Action Plan Procedures

This section outlines the procedures that must be taken in response to a spill. Given that Wood could potentially operate year-round, procedures are included for containing and cleaning up spills and releases on land, water, ice, and snow.

Factors to consider when assessing a spill:

1. The potential size and sources of a spill.
2. Determine what will be affected by the spill.
3. Assess speed and direction of the spill and cause of movement (water, wind, and/or gravity).
4. Determine best location for spill containment, avoiding any watercourses.
5. Prepare a subsequent contingency plan in case the spill worsens or if the weather or topography impedes containment.
6. Keep track of all information received during the incident.

### 8.1 Initial Action

The first person arriving at, or discovering the scene of a spill will conduct the following procedures:

1. Protect the safety of onsite personnel.
2. Notify all personnel of the spill's occurrence.
3. Shut off all ignition sources, if safe to do so.

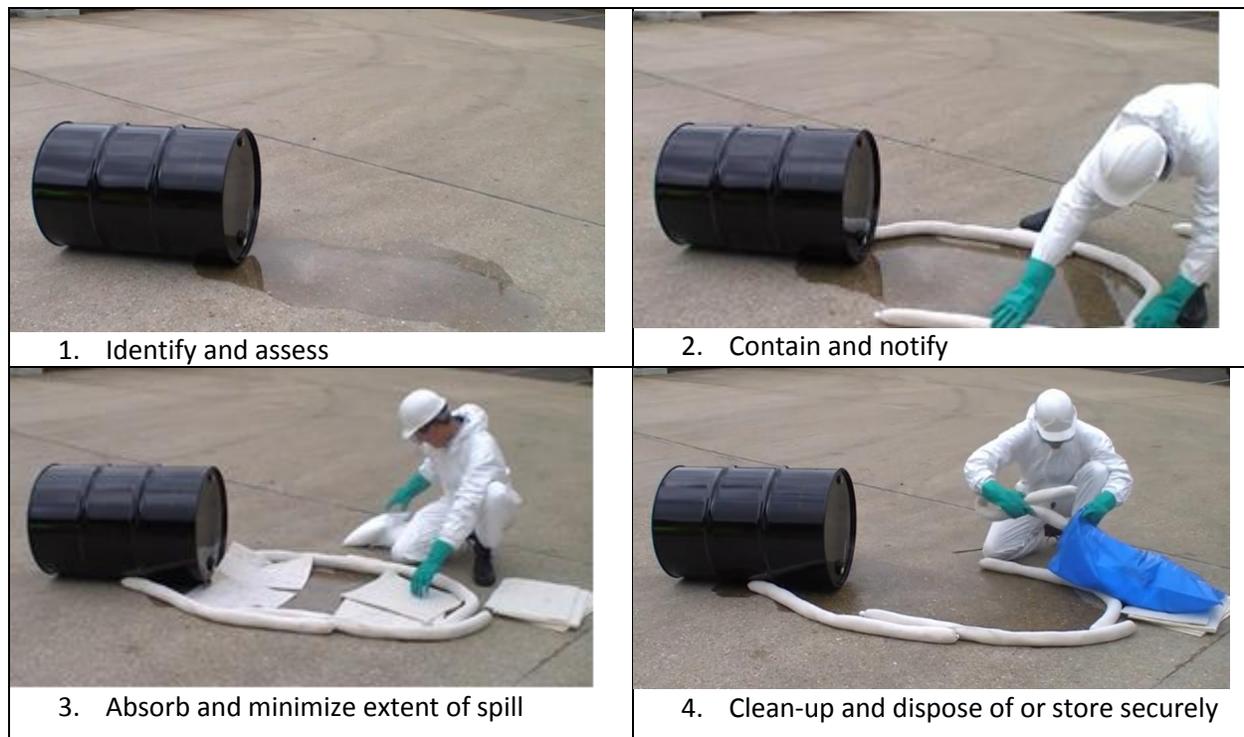


4. Activate the Spill Response Team.
5. Identify the spilled material.
6. Locate the likely source of the spill.
7. Stop the spill at its source, if it is safe to do so.
8. Take actions to contain and clean up the spilled material.
9. Record relevant information for reporting purposes (e.g. approximate quantity, product type, location, whether spill is still in progress, odour, colour, weather).

## 8.2 Containing and Cleaning up the Spill

### 8.2.1 Basic Spill Response Procedure

Figure 2 depicts a basic example showing the key steps to be taken during a spill or incident. Due to topography, quantity of material spilled, weather conditions, and availability of personnel and equipment, spill response actions can vary considerably.



(Figure source: Mackenzie Valley Land and Water Board, 2019)

**Figure 2: Basic Spill Response Actions**

### 8.2.2 Spills on Land

Spills on land include spills on rock, gravel, soil and/or vegetation. Generally, spills on land occur during the late spring, summer or fall when snow cover is at a minimum. It is important that all measures be undertaken to avoid spills reaching open water bodies.

Dykes can be created using soil surrounding a spill on land. These dykes are constructed around the perimeter or downslope of the spilled fuel. A dyke needs to be built up to a size that will ensure containment of the maximum quantity of fuel that may reach it. A plastic tarp can be placed on, and at the base of, the dyke such that fuel can pool up and subsequently be removed with sorbent materials or pumped into barrels or bags. If the spill is migrating very slowly a dyke may not be necessary and sorbent pads can be used to soak up fuels before they migrate away from the source of the spill.

Trenches can be dug out to contain spills as long as the top layer of soil is thawed. Shovels, pickaxes, or a loader can be used depending on the size of trench required. Fuel can then be recovered using a pump or sorbent materials.

### 8.2.3 Spills on Water

While unlikely at the sites given the distance to the nearest waterbody, spills on water such as rivers, streams, or lakes are the most serious types of spills as they can negatively impact water quality and aquatic life. All measures need to be undertaken to contain spills on open water.

Booms are commonly used to recover fuel floating on the surface of lakes or slow-moving streams. They are released from the shore of a watercourse to create a circle around the spill. If the spill is away from the shoreline, a boat will need to be used to reach the spill and then the boom can be set out. More than one boom may be used at once. Booms may also be used in streams and should be set out at an angle to the current. Booms are designed to float and have sorbent materials built into them to absorb fuels at the edge of the boom. Fuel contained within the circle of the boom will need to be recovered using sorbent materials or pumps and placed into barrels or bags for disposal.

Weirs can be used to contain spills in streams and to prevent further migration downstream. Plywood or other materials sourced in Tulita can be placed into and across the width of the stream, such that water can still flow under the weir. Spilled fuel will float on the water surface and be contained at the foot of the weir. It can then be removed using sorbents, booms, or pumps and placed into barrels or plastic bags.

In some situations, barriers made of netting or fence material can be installed across a stream, and sorbent materials placed at the base to absorb spilled fuel. Sorbents will need to be replaced as soon as they are saturated. Water will be allowed to flow through. This is very similar to the weir option discussed above.

In some cases, it may be appropriate to burn fuel or to let volatile fuels such as gasoline evaporate after containment on the water surface. This should only be undertaken in consultation with and after approval from the lead agency inspector (Government of the Northwest Territories – for non-federally managed areas and Indigenous and Northern Affairs Canada – for federally managed areas). For the purposes of this work within the Hamlet boundaries, burning of spilt fuel will **not** be considered as a remedial option.

### 8.2.4 Spills on Ice

Spills on ice are generally the easiest spills to contain due to the predominantly impermeable nature of the ice. For small spills, sorbent materials are used to soak up spilled fuel. Remaining contaminated ice/slush can be scraped and shoveled into a plastic bag or barrel. However, all possible attempts should



be made to prevent spills from entering ice covered waters as no easy method exists for containment and recovery of spills if they seep under ice.

Dykes can be used to contain fuel spills on ice. By collecting surrounding snow, compacting and mounding it to form a dyke downslope of the spill, a barrier is created thus helping to contain the spill. If the quantity of spill is large, a plastic tarp can be placed over the dyke such that the product pools at the base of the dyke. The collected fuel can then be pumped into barrels or collected with sorbent materials.

For significant spills on ice, trenches can be cut into the ice surrounding and/or downslope of the spill such that product can pool in the trench. It can then be removed via pump into barrels, collected with sorbent materials, or mixed with snow and shoveled into barrels or bags.

### **8.2.5 Spills on Snow**

Snow is a natural sorbent, thus as with spills on soil, spilled fuel can be more easily recovered. Generally, small spills on snow can be easily cleaned up by raking and shoveling the contaminated snow into plastic bags or empty barrels and storing these at an approved location.

Dykes can be used to contain fuel spill on snow. By compacting snow down slope from the spill and mounding it to form a dyke, a barrier or berm is created, thus helping to contain the spill. If the quantity of the spill is large, a plastic tarp can be placed over the dyke such that the product pools at the base of the dyke. The collected fuel/snow mixture can then be shoveled into barrels or bags or collected with sorbent materials.

### **8.2.6 Worst-Case Scenario**

Containing and collecting spilled product which exceeds the freeboard of a dyke or barrier would present a possible worst-case scenario for the drilling programs. To contain the overflow, a trench or collection pit would have to be created downstream of the spill to contain the product overtopping the dyke or barrier.

In the event of a large spill, Wood will contact MYB and/or the Hamlet to provide earth moving equipment to contain and remove product and contaminated soils.

## **8.3 Transferring, Storing, and Managing Spill-related Wastes**

In most cases, spill cleanups are initiated at the far end of the spill and contained moving towards the center of the spill. Sorbent socks and pads are generally used for small spill cleanups. A pump with attached fuel transfer hose can suction spills from leaking containers or large accumulations on land or ice and direct these larger quantities into empty drums. Hand tools such as cans, shovels and rakes are also very effective for small spills or hard to reach areas. Heavy equipment can be used if deemed necessary and given space and time constraints.

Used sorbent materials are to be placed in plastic bags for future disposal. All materials mentioned in this section are available in the spill kits located at the fuel storage areas, in trucks, the mechanic shop and in the camp. Following clean-up, any tools or equipment used will be properly washed and decontaminated or replaced if this is not possible.



For most of the containment procedures outlined, spilled petroleum products and materials used for containment will be placed into empty waste oil containers and sealed for proper disposal at an approved disposal facility.

## 8.4 Restoring Affected Areas, Status Updates, and Cleanup Completion

Once a spill of reportable size has been contained, Wood will consult with the Lead Agency Inspector assigned to the file to determine the level of cleanup required. An Inspector may require a site-specific study to ensure appropriate clean-up levels are met. Criteria that may be considered include natural biodegradation of oil, replacement of soil, and re-vegetation.

## 9.0 Administration of the Plan

### 9.1 Training on the Plan

The employee and contractor training program has been developed by Wood to ensure everyone at the worksite is familiar with the Plan and its contents. The training component is administered by Wood employees with records kept onsite as part of Wood's safety documentation. The following points are key steps in this program:

- All individuals entering the site are required to participate in an orientation session;
- During this session, all locations of the Spill Contingency Plan and spill kits are provided on a map in hard copy;
- An overview of the Spill Contingency Plan is provided by the Wood employee or designate leading the orientation session;
- Specific training sessions, including mock spill exercises, are scheduled for individuals directly involved in handling fuel and hazardous materials on-site, as well as the steps involved in the event of a spill, including the proper use of spill kits and other resources;
- All employees and contractors are required to have their basic first aid training as well as WHMIS training before working on the site; and
- Supervisors are required to have first aid training as well as Transportation of Dangerous Goods training.

### 9.2 Corporate Contact Information

**Table 5: Wood Contact Information**

LOCATION	POSITION	INFORMATION
Company Onsite	Project Manager, Site Personnel / Superintendent, Site First Aider (HSE)	Katrina Nokleby, P.Eng.
		Office: (867) 920-4140; Mobile: (867) 444-9576
		<a href="mailto:katrina.nokleby@woodplc.com">katrina.nokleby@woodplc.com</a>
Company Office	Yellowknife HSE Officer	Chuck Gordon
		Office: (867) 920-4140; Mobile: (867) 445-3854
		<a href="mailto:charles.gordon2@woodplc.com">charles.gordon2@woodplc.com</a>
	Drilling Contractor	To be determined



### 9.3 Wood's Corporate Health, Safety, and Environmental Program (HSE)

Wood is committed to the concept of sustainable development and the protection of the environment and human health. Our HSE Policy includes the following:

- Senior managers are responsible for ensuring that all the requirements of this EHS Policy are fully implemented and for ensuring employees, government officials, and the public are informed;
- All managers and supervisors are responsible for ensuring that their employees are trained in safe work procedures; to undertake their assigned duties without accidents, injuries or harm to the environment; and for ensuring that employees follow safe work methods and all related regulations; and
- All personnel are to:
  - Comply with existing regulations;
  - Protect the environment as is technically feasible and economically practical;
  - Cooperate with other groups on the protection of the environment;
  - Implement, support, and adhere with the HSE Policy and any associated programs by making health, safety, and protection of the environment a part of their daily routine;
  - Follow safe work methods and relevant regulations. Where a conflict arises due to different standards or requirements between different regulations or standards, the more stringent of the two will apply;
  - Report unsafe practices or areas in need of improvement; and
  - Keep employees, government officials, and the general public informed.

The Spill Contingency Plan will be presented to all personnel (employees and contractors) during the onsite project kickoff tailgate meeting. Training on the Plan will include where copies of the Plan can be located onsite; training in the use of spill equipment; steps to be undertaken in the event of a spill; and where spill kits and related materials are located. Wood is committed to keeping personnel trained and fluent in the latest technologies and spill response methods.

### 9.4 Effective Date

This Spill Contingency Plan is effective as of 21 January 2019. In the event a revision to this Plan is made while the Plan is undergoing public review, the earlier version of the Plan shall take precedence and be acted in accordance with until the SLWB approves the subsequent Plan revision.

### 9.5 Revisions

The Spill Contingency Plan is a living document that will be reviewed annually, at a minimum, and prior to the start of any site activities, with additional reviews as warranted. Updates will be made to reflect changes such as fuel storage locations, new hazardous materials onsite, new construction, and new personnel and their associated contact information. Table 6 presents a summary of the versions of this Plan and any revisions made. Table 6 is updated each time a revision is made to the Plan to ensure stakeholders have the most current copy of the Plan.



**Table 6: Version and Revision History**

VERSION #	DATE	SECTIONS/PAGES REVISED	SUMMARY OF CHANGES/COMMENTS
V.1	21 Jan 2019	N/A	First Submission to SLWB with LUP Application

## 9.6 Recipients

Table 7 identifies who the most recent version of this plan has been distributed to:

**Table 7: Recipients of this Version of the Spill Contingency Plan**

ORGANIZATION	CONTACT
CanNor NWT Region	Paradis, Adrian
Conoco Phillips	Belland, Darlene
Deline Got'ine Government	Little, David
Environment and Climate Change Canada	Environment Canada, EA
Fisheries and Oceans Canada	Fisheries Protection Program, Triage Group
Fisheries and Oceans Canada	Taylor, Jessica
Fort Norman Metis Nation Local #60 Land Corporation	McPherson, Rose Ann
Fort Norman Metis Nation Local #60 Land Corporation	Hardy, Rick
Tulita Renewable Resources Council	
Forward Mining	Mauchan, Jason
GNWT - ECE	Mackay, Glen
GNWT - ECE	Smethurst, Naomi
GNWT - ENR	GNWT, Central Email
GNWT - ENR	Richea, Nathen
GNWT - ENR	Clancy, Patrick
GNWT - ENR - Sahtu Region	Goose, Erin
GNWT - ENR - Sahtu Region	Walker, Jeff
GNWT - ENR - Sahtu Region	McDonald, Laurel
GNWT - Health	Department of Health
GNWT - INF	Campbell, Alexis
GNWT - INF	Acorn, Joe
GNWT - INF	Posynick, Jon
GNWT - INF	Rozestraten, Katie
GNWT - INF	Oldfield, Nathalie
GNWT - INF	Niven, Stuart
GNWT - ITI	Strand, Pamela
GNWT - ITI	Fast, Peter
GNWT - Lands	Baetz, Conrad
GNWT - Lands	Seale, Lorraine
GNWT - Lands	Mercredi, Paul
GNWT - Lands - Sahtu Region	Gillingham, Johnathan
GNWT - Lands - Sahtu Region	Gillingham, Jonathan
GNWT - Lands - Sahtu Region	Deschene, Stephen



ORGANIZATION	CONTACT
GNWT - Lands - Sahtu Region	Bremner, Trevor
GNWT - MACA	Arshad, Iqbal
GNWT - MACA	Lee, Olivia
Hamlet of Tulita	Tomzynski, Tim
INAC - CARD	Hilman-Barnes, Kate
INAC - NWT Inspectors	Morton, Tim
INAC - Yellowknife	Pawley, Kim
Mackenzie Valley Environmental Impact Review Board	MVEIRB, Generic
MVLWB	Potten, Jen
National Energy Board	Notifications, COGOA
Norman Wells Land Corporation	Hodgson, Sherry
Norman Wells Renewable Resources Council	Ruby McDonald
NWT- OROGO	Fulford, James
Sahtu Health and Social Services	Gionet, Mireille
Sahtu Land Use Planning Board	Harding, Melanie
Sahtu Renewable Resource Board	Director SRRB, Executive
Sahtu Secretariat Incorporated	McNeely, Charles
Sahtu Secretariat Incorporated	Modeste, Orlena
SLWB	Bergsma, Bonnie
SLWB	Grandjambe, Jenna
Town of Norman Wells	Flynn, Darren, SAO
Town of Norman Wells	Clerk, Town of Norman Wells
Tulita Band Council	Andrew, Frank
Tulita District Land Corp.	Tulita District Land Corp, District Land Corp
Tulita Land Corporation	Tulita Land Corp, Land Corporation
Tulita Land Corporation	Doctor, Lorraine
Tulita Land Corporation	Tulita Land Corporation, President
WLWB	Elsasser, Sarah

## 9.7 Copies of Current Version of the Plan

Copies of the most current version of the Spill Contingency Plan are available onsite at all times at the following locations:

- Wood Personnel (Katrina Nokleby, P.Eng.)

Additional copies of the Plan can be obtained by contacting Wood Environment & Infrastructure Solutions directly.

## 9.8 Public/Media Inquiries

All media and public inquiries during the execution of the work are to be directed to the Wood employee onsite or their designate. If media or a member of the public arrives onsite unexpectedly, they will be directed to the Wood employee onsite. Onsite personnel, including subcontractors, are not to answer any questions from the media or public.



**Appendix A**  
**Site Locations**





<b>Sahtu Land and Water Board - Landuse Permit Application</b>		<b>Figure No.</b>	1
		<b>Scale:</b>	NTS
<b>Project:</b>	Geotechnical and Enviromental Investigations	<b>Date:</b>	
<b>Title:</b>	Project Locations and Extent of Drilling	<b>File No.:</b>	
		<b>Dwn. By:</b>	CG
		<b>Chk'd By:</b>	KN
<b>Notes:</b>	Scale is approximate		

**Legend**  Subject Areas





**wood.**

**Appendix B**

**MSDS**

**MSDS WILL BE ADDED TO THIS APPENDIX AS PRODUCT LIST DEVELOPS**





**wood.**

**Appendix C**  
**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: MM   DD   YY	Report Time:	<input type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update # _____ to the Original Spill Report		Report Number:
	Occurrence Date: MM   DD   YY	Occurrence Time:			
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"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> Adjacent Jurisdiction or Ocean		
E	Latitude: _____ Degrees _____ Minutes _____ Seconds		Longitude: _____ Degrees _____ Minutes _____ Seconds		
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:		
G	Any Contractor Involved:		Contractor Address or Office Location:		
H	Product Spilled: <input type="checkbox"/> Potential Spill	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:	Employer:	Location Called:	Report Line Number:
Lead Agency: <input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other:			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:					

**Appendix D**  
**Reportable Quantities**



**Reportable Quantities to the NWT Spill Line**

PRODUCT/ 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 100L	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	≥ 5 L or 5 kg	8.0
Miscellaneous products, substances or organisms		9.0
PCB mixtures of 5 or more ppm	≥ 0.5 L or 0.5 kg	9.0
Other contaminants--for example, crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater.	≥ 100 L or 100 kg	None
Sour natural gas (i.e., contains H <sub>2</sub> S)	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 fluid	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: <ul style="list-style-type: none"> <li>• are near or in an open water body;</li> <li>• are near or in a designated sensitive environment or habitat;</li> <li>• Pose an imminent threat to human health or safety; or</li> <li>• Pose an imminent threat to a listed species at risk or its critical habitat</li> </ul>	Any amount	None
Compressed gas (Flammable)	Any amount of gas from containers with a capacity greater	2.1
Compressed gas (Non-corrosive, non-flammable)		2.2



PRODUCT/ SUBSTANCE	REPORTABLE QUANTITY	TDG CLASS
	than 100L	
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 ppm	≥ 0.5 L or 0.5 kg	9.0
Other contaminants--for example, crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater.	≥ 100 L or 100 kg	None
Sour natural gas (i.e., contains H <sub>2</sub> S)	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 fluid	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: <ul style="list-style-type: none"> <li>• are near or in an open water body;</li> <li>• are near or in a designated sensitive environment or habitat;</li> <li>• Pose an imminent threat to human health or safety; or</li> <li>• Pose an imminent threat to a listed species at risk or its critical habitat</li> </ul>	Any amount	None

<https://www.enr.gov.nt.ca/en/services/report-spill>

