

S20S-001 and S20S-002 Project Notifications – March 9-10, 2020

The following e-mail notifications were sent to: Trevor Bremner (GNWT-Lands, Sahtu Region) and Bonnie Bergsma (SLW) and copied to Patricia Coyne and Mark Wasluta (GNWT-INF)

March 9, 2020 at 9:52 am

Hi Trevor and Bonnie,

We will be filing everything with you today that is required under the PCAR and 12 Mile Creek geotech permits.

We are asking however that you waive the 2-day notice period prior to the start of work under the PCAR geotech permit. The crew drilling the Hodgson Creek bridge in the Dehcho was more successful than expected on the weekend in the Dehcho and so they are wanting to get started at Canyon Creek bridge a bit earlier than we expected.

The crew working on the alignment drilling in the Dehcho will be finishing soon as well and then be on their way north.

The road closure date has been set earlier than we expected (March 15) so we can't afford to have a gap while we wait for the 2-day waiting period to elapse.

Sorry about this but we are dealing with this as best as we can.

Thanks for your consideration.

Joe

Joe Acorn

Manager, Mackenzie Valley Highway Environmental Affairs
Department of Infrastructure
Government of the Northwest Territories
7th floor, Yk Centre | Yk Centre, 7e étage
4922 48th Street | 4922, 48e rue
PO Box 1320 | C. P. 1320
Yellowknife NT X1A 2L9

Phone | Tél. : 867-767-9082, ext. | poste 31029 www.gov.nt.ca

at 10:48 am Trevor Bremner responded with:

Joe, please consider this email an approval to begin work on Canyon Creek geotech. We will consider this email the notice required, Department of Lands has no concerns with working beginning today if need be. Glad to hear things are progressing positively in the field.

At 10:49 am Joe Acorn responded with:
Again thank you! Much appreciated!

Notification for Drilling Crews

March 9, 2020 at 10:21 am

There are two drilling crews that will be working in the Sahtu.

Drilling Crew 1

Drilling Crew 1 will be drilling the Canyon Creek Bridge under S20S-001 and the 12 Mile Creek Bridge under S20S-002.

The contact for Drilling Crew 1 is:

Atiq Rafiq (780) 297-5996 - Atiq.Rafiq@tetrattech.com

Drilling Crew 1 - Bridges

Drilling Crew 1 is doing the work at Hodgson Creek Bridge, 12 Mile Creek Bridge and Canyon Creek Bridge. They have finished the Hodgson Creek Bridge and are driving from Wrigley to Norman Wells today and plan to start drilling at Canyon Creek on Tuesday, likely in the afternoon. They will drill at 12 Mile Creek Bridge on their way back south.

Drilling Crew 2

Drilling Crew 2 will be drilling the PCAR alignment under S20S-001.

The contact for Drilling Crew 2 is:

Doug Yokoyama (867) 445-5289 - Doug.Yokoyama@tetrattech.com

Drilling Crew 2 - Alignments

Drilling Crew 2 is doing the drilling along the MGAR and PCAR alignments. They are expected to complete MGAR today, drive up to Norman Wells on Tuesday and start drilling on Wednesday at the soonest.

Alternate contacts will be:

Rob Girvan (Tetra Tech)

Direct +1 (867) 766-3728 x9201103 | Mobile +1 (867) 444-0657 | Rob.Girvan@tetrattech.com

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Joe Acorn (GNWT – Strategic Infrastructure)

Direct (867) 767-9082 Ext. 31032, Mobile (867) 446-4492 Joe_Acorn@gov.nt.ca

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Patricia Coyne (GNWT – Strategic Infrastructure)

Direct (867) 767-9082 Ext. 31033 Patricia_Coyne@gov.nt.ca

Refueling Procedures and Tanks

March 9, 2020 at 10:29 am

There will be two drilling trucks operating under S20S-001. One will drill at the Canyon Creek Bridge and the other along the PCAR alignment.

There will be one drilling truck operating under S20S-002 at 12 Mile Creek Bridge.

Each drilling truck will be supported by a pick-up truck that is equipped with a 450 L Tidy Tank with diesel.

The refuelling procedures are attached.

At 10:39 am Trevor Bremner responded with:
Perfect Joe, thank you for this update.

At 10:43 am Bonnie Bergsma responded with:
Thank you for providing details about the Project start and contacts.
The SLWB will waive the two-day notification requirement given the circumstances with an early winter road closure.

At 10:48 am Joe Acorn responded with:
Thank you! Very much appreciated! The bridge drilling crew is being mobilized to the Sahtu today. I have told them they are not start drilling until I give them the OK to proceed. I will find out when they expect to be able to start work and will notify you both before any drilling occurs.

You will have the other items (Update Spill Plan, Updated Waste Plan, permafrost and Erosion Plan) very shortly.

Management Plans required

Permafrost Mitigation and Erosion Control Plan – PCAR Geotechnical (S20S-001)

At 11:23 am on March 9, 2020 Patricia Coyne sent:

Please see the attached Permafrost Mitigation and Erosion Control Plan for the Prohibition Creek Access Road Geotechnical Project.

Permafrost Mitigation and Erosion Control Plan – 12-Mile Creek Geotechnical (S20S-002)

At 3:22 pm on March 9, 2020 Patricia Coyne sent:

Please see the attached Permafrost Mitigation and Erosion Control Plan for the 12 Mile Creek Geotechnical Project. The Updated Spill Contingency Plan and Waste Management Plan will be provided shortly.

Updated Waste Management Plan for 12-Mile Creek S20S-002

At 4:00 pm on March 9, 2020, Patricia Coyne sent:

Please see the attached Updated Waste Management Plan for the 12 Mile Creek Geotechnical Project. The Updated Spill Contingency Plan will be provided March 10, 2020.

Updated Waste Management Plan for PCAR Geotechnical S202S-001

At 4:07 pm. On March 9, 2020, Patricia Coyne sent:

Please see the attached Updated Waste Management Plan for the Prohibition Creek Access Road Geotechnical Project. The Updated Spill Contingency Plan will be provided March 10, 2020.

Updated Spill Contingency Plan for PCAR Geotechnical S20S-001

At 8:52 am on March 10, 2020, Patricia Coyne sent:

Please see the attached Updated Spill Contingency Plan for the Prohibition Creek Access Road Geotechnical Project. This is the final plan required to be submitted prior to the start of work.

Updated Spill Contingency Plan for 12-Mile Creek Geotechnical S20S-002

At 10:28 am March 10, 2020, Patricia Coyne sent:

Please see the attached Updated Spill Contingency Plan for the 12 Mile Creek Geotechnical Project. This is the final plan required to be submitted prior to the start of work.

Patricia Coyne

Senior Environmental Analyst

Department of Infrastructure | Ministère de l'Infrastructure

Government of the Northwest Territories | Gouvernement des Territoires du Nord-Ouest

7th floor, Yk Centre | Yk Centre, 7e étage

4922 48th Street | 4922, 48e rue

PO Box 1320 | C. P. 1320

Yellowknife NT X1A 2L9 Phone | Tél. : 867-767-9082, ext. | poste 31033

At 11:34 am March 10, 2020 Bonnie Bergsma replied:

This is to confirm that the SLWB has received all of the updated management plans (SCP and WMP) for both S202S-001 and S20S-002 as required prior to Project start. We have also received the erosion and permafrost contingency plans. We will review the documents and post them to the registry. I will contact you if I have any follow-up questions.

As well, the project notifications for timing of work; drill crew contact information; and fuel transfer protocols will be posted on the registry. Thank you for keeping us informed.

At 11:39 am, March 10, 2020, Joe Acorn responded:

Thanks Bonnie. Given the date and the work that is required, we might be tinkering a bit with how the work is conducted. We might put both drills on the alignment drilling and then shift one of them back to the bridge drilling once the PCAR alignment is substantially complete. Not sure yet but we are just trying to maximize what we can get done also taking into account what we could leave for next winter if we can't get it done this winter. We will keep you updated.

PROJECT		Document No	0221.020-HSE-FO-R2
TASK DESCRIPTION:	Refueling diesel tidy tanks.	ISSUED DATE:	April 24, 2012
		REVISION DATE:	November 1, 2016
ASSESSMENT TEAM MEMBERS:	<u>Name</u>	<u>Signature</u>	<u>Date</u>
Site Supervisor			
Project Manager			
HSE Manager (reviewed)			

Please Remember: This THA is a compilation of potential hazards that should be expected on a similar work site. If actual work conditions or hazards require deviations from this THA the employee must take the appropriate safety measures and document any changes to the Sequence of basic job steps, potential accidents or hazards, and recommendations to eliminate or reduce potential hazards listed or not listed in this THA.

PPE		TOOLS & EQUIPMENT		PROCEDURES	
<input checked="" type="checkbox"/>	Hard Hats	<input checked="" type="checkbox"/>	Fire Extinguisher	<input type="checkbox"/>	Permit to Work - Hot Works
<input checked="" type="checkbox"/>	Safety boots	<input type="checkbox"/>	Hand Rails	<input type="checkbox"/>	Permit to Work - Confined Space
<input checked="" type="checkbox"/>	Hearing Protection	<input checked="" type="checkbox"/>	Eye Wash Station	<input type="checkbox"/>	Permit to Work - Isolation
<input checked="" type="checkbox"/>	Safety Glasses	<input type="checkbox"/>	Life rafts	<input type="checkbox"/>	Permit to Work - Simultaneous Operations
<input type="checkbox"/>	Back Belts	<input type="checkbox"/>	Radios	<input type="checkbox"/>	Permit to Work - Stored Energy
<input type="checkbox"/>	Safety Harness / Fall arrester	<input type="checkbox"/>	Lighting	<input type="checkbox"/>	Tag Out Lock Out
<input type="checkbox"/>	Dust Mask	<input type="checkbox"/>	Marine Flares	<input type="checkbox"/>	Original Manufacturer Manuals
<input type="checkbox"/>	Work Vest / PFD	<input type="checkbox"/>	Signage	<input type="checkbox"/>	Project Procedures
<input checked="" type="checkbox"/>	Safety Gloves	<input type="checkbox"/>	Cranes	<input type="checkbox"/>	MSDS
<input type="checkbox"/>	Goggles	<input type="checkbox"/>	Forklift	<input type="checkbox"/>	Vessel Safety Management System (SMS)
<input type="checkbox"/>	Welder Helmet	<input type="checkbox"/>	Ladder	<input type="checkbox"/>	
<input type="checkbox"/>	Fall Arrestor	<input type="checkbox"/>	Winches	<input type="checkbox"/>	
<input type="checkbox"/>	Coveralls	<input type="checkbox"/>	Power Tools	<input type="checkbox"/>	
<input type="checkbox"/>	Cold Weather Clothing	<input type="checkbox"/>	Hydraulic Tools	<input type="checkbox"/>	
<input type="checkbox"/>	Self-contained Breathing Apparatus	<input type="checkbox"/>	Lifting Aids (slings, shackles, chain)	<input type="checkbox"/>	

Likelihood		Consequence				
		(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Catastrophic
		No risk to personnel. No loss to production. No damage to equipment.	First aid treatment. No risk to public. One hour lost production. Less than \$5,000 loss.	Medical aid treatment. Possible return to work program. Low risk to public. One shift lost production. Up to \$25,000 loss.	Lost time injury. Multiple medical aids. High risk to public. Up to one week lost production Up to \$100,000 loss.	Single or multiple fatalities. Major risk to public. Up to one month lost production. Up to \$500,000 loss.
(E) Rare	Not known to have happened in the previous 12 months. Cannot reasonably anticipate happening in the next 12 months.	1	2	3	4	5
(D) Unlikely	May occur in the next 12 months. May have occurred in the last 12 months, but not annually	2	4	6	8	10
(C) Possible	Will occur multiple times in the next 12 months.	3	6	9	12	15
(B) Likely	Will occur multiple times in the next 12 months. May happen once per month.	4	8	12	16	20
(A) Always	May occur in the next 7 days / Will occur in the next month	5	10	15	20	25
1 - 6	May be acceptable; however, review task to see if risk can be reduced further.					
7 - 14	Task should only proceed with procedures; engineered solutions additional mitigation steps implements. Where possible, the task should be redefined to take account of the hazards involved or the risk should be reduced further prior to task commencement.					
15 - 25	Task must not proceed. It should be redefined or further control measures put in place to reduce risk. The controls should be re-assessed for adequacy prior to task commencement.					

	Job Steps	Hazard	Initial Risk			Controls	Residual Risk			Critical Safe Job Procedure / Safe Work Practice Reference #
			Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating	
1.	Receiving fuel tanks from helicopter	<ul style="list-style-type: none"> Overhead hazard of load suspended under helicopter. Fuel tank has potential to tip if landing spot is not prepared prior to receive the load. Worker injured in crush point due to improper body positioning. Worker injured by placing body parts in pinch points. 	4	4	16	<p>Ensure you have communication with the pilot while receiving load.</p> <p>Never place your body underneath suspended loads.</p> <p>Allow pilot to control load, and lower slowly while giving the pilot hand signals until the load is at chest level.</p> <p>If weather is not ideal a spotter with radio communication with the pilot may be required.</p> <p>Prepare level, stable and adequately cribbed landing spot to prior to helicopter arriving with a load.</p> <p>If load is initially dropped out of position, have the pilot re-lift the tank to set it into a proper position.</p> <p>Maintain housekeeping on site to reduce slip, trip and fall potential.</p> <p>Always conduct LMRA while receiving a load to prevent improper body positioning.</p> <p>Ensure that the worker receiving load is aware of hand placement and is not wearing loose clothing.</p>	3	3	9	<ul style="list-style-type: none"> 0403.003-HSE-PR-Helicopter Slingsing Receiving 0320.013-HSE-GL-Crush Point Awareness
2.	Inserting fuelling hose from supply tank to receiver tank.	<ul style="list-style-type: none"> Spilled fuel from improper fuel hose handling. 	2	2	4	<p>Ensure that the fill nozzles are in good working order to prevent spilled fuel.</p> <p>Do not move fuel hoses while tank pumps are running.</p>	1	2	2	<ul style="list-style-type: none"> 0310.002-HSE-PC-Fueling Equipment 1106-HSE-GL-Emergency Spill Response



	Job Steps	Hazard	Initial Risk			Controls	Residual Risk			Critical Safe Job Procedure / Safe Work Practice Reference #
			Job Steps for Task	Hazard Description and Effect	Consequence		Likelihood	Risk Rating	List all Controls Required	
3.	Connecting fuel pump electrical leads to the battery.	<ul style="list-style-type: none"> Potential for sparking to occur if electrical leads are not attached in proper sequence. 	3	2	6	Ensure that the pump is in "OFF" position and not drawing power prior to connecting battery leads. Always connect the negative terminal first, then the positive.	2	1	2	<ul style="list-style-type: none"> 0310.002-HSE-PC-Fueling Equipment
4.	Fuel transfer from tank to tank.	<ul style="list-style-type: none"> Fuel splashed onto the worker conducting refuelling operation. Dermatological concerns for Diesel fuel. 	3	3	9	<p>Never leave hose unattended while fuel is being transferred.</p> <p>Always control hose while pump is active to prevent the hose whipping around with the potential of fuel splashes.</p> <p>Wear PPE that will prevent any splashed fuel from contacting a worker's skin and or eyes.</p> <p>Familiarise yourself with the nearest eyewash station and first aid kits.</p> <p>Replace fuel tank caps immediately upon completion of the fuelling operation to prevent fuel spills.</p> <p>Ensure that the transfer pump is shut off after the fuel cap is replaced.</p>	2	3	6	<ul style="list-style-type: none"> 0310.002-HSE-PC-Fueling Equipment 0601-HSE-GL-Personal Protective Equipment
5.	Disconnecting battery leads on fuel pump.	<ul style="list-style-type: none"> Sparking while disconnecting battery leads. 	2	4	8	<p>Always wear PPE appropriate for the task being performed.</p> <p>Ensure that the pump is in the "Off" position and not drawing power prior to connecting the battery leads.</p>	2	3	6	<ul style="list-style-type: none"> 0310.002-HSE-PC-Fueling Equipment 0601-HSE-GL-Personal Protective Equipment

	Job Steps	Hazard	Initial Risk			Controls	Residual Risk			Critical Safe Job Procedure / Safe Work Practice Reference #
	Job Steps for Task	Hazard Description and Effect	Consequence	Likelihood	Risk Rating	List all Controls Required	Consequence	Likelihood	Risk Rating	
					12	Always connect the negative terminal first, then the positive.			6	
6.	Sending fuel tank with helicopter.	<ul style="list-style-type: none"> Worker struck by overhead hazards (long line hook). Worker caught on a load while it's being lifted. 	4	3	12	<p>Keep aware of surroundings while helicopter is near.</p> <p>Watch the hook on the helicopter as the line is getting closer.</p> <p>Do not hook chase hook around and advise the helicopter pilot to set the hook on the ground if external factors are out of the pilot's control.</p> <p>Once a load is securely fastened to a long line, a worker must evacuate the work area and provide the pilot with hand signals.</p> <p>Never wear loose clothing that can become caught on the rigging or the load that is being lifted.</p> <p>Ensure appropriate hand protection is worn and not to lose.</p>	2	3	6	<ul style="list-style-type: none"> 0403.003-HSE-PR-Helicopter Slinging Receiving 0320.013-HSE-GL-Crush Point Awareness 0601-HSE-GL-Personal Protective Equipment

Date	Step	Description - Change Including New Hazards and Controls	Change Made By	Employee Approved	Supervisor Approved	Team Review & Acceptance Confirmed By

THA Worksheet Daily Review

Date	Name	Signature	Name	Signature

	Fueling Equipment	<i>Safe Work Practice</i>
Created by: Health, Safety and Training Manager	Identifier: 0310.002-HSE-PC-R1	Signature:
Department: Sustainability	Revision Dates: July 11, 2016	
Effective Date: March 11, 2010	Approved By: Division Manager	

1.	<p>Ensure all required PPE is on hand and being worn (as required for site):</p> <ul style="list-style-type: none"> • Hard Hat • Eye Protection • CSA Steel Toed Footwear • Hearing Protection • High Visibility Clothing • Appropriate Gloves
2.	Determine what equipment needs to be filled prior to commencing fueling operations.
3.	Check to ensure proper spill containment is in place prior to fueling equipment. Ensure fuel line is in good repair (no cracks, holes or other deficiency).
4.	Perform a "Circle Check" of the vehicle, remove wheel chocks, fasten seat belt and drive to first location abiding by all posted speed limits.
5.	Upon arrival, park the unit away from the equipment and walk the planned route from the unit to the equipment to ensure potential hazards are identified and controlled or removed, and that the route is clear of obstructions that could potentially cause the unit to get stuck.
6.	Move fuel unit into a position where all equipment can be fueled without having to re-position (if possible).
7.	Turn on electric fuel pump.
8.	Open ball valve at the end of the fuel line.
9.	Fuel equipment to 95% of tank capacity. Observe the tank until limit is reached.
10.	When fueling is finished, tip the hose up to drain residual fuel from the hose back into tidy tank of the fuel truck.
11.	Close ball valve on end of line.
12.	Shut off electric pump.
13.	Coil hose and place hose in the secondary containment.
14.	If fuel additive (anti-gel) is required, ensure to wear safety glasses and use an appropriate funnel while adding solution to the fuel tank.
15.	Fuel other equipment onsite following the above steps.