



AGNICO EAGLE

Meliadine Exploration Project

**Fuel Tank in Meliadine Lake,
Closing Report**

September 17th, 2020

Prepared by:

**Agnico Eagle Mines Limited,
Exploration Division**

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INTRODUCTION

On August 18th, Agnico Eagle Mines Limited (Agnico Eagle) was informed by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Water Resources Officer, that a steel sled and fuel tank had been observed in Meliadine Lake (see Figure 1) at coordinates N62 58' 53.0" W092 01' 41.2" at approximately 8.9 km southeast of the Meliadine exploration camp (see Figure 2).

The initial assessment conducted by Agnico Eagle showed that it was located in a bay of Meliadine Lake, between the main camp and the Discovery Gold Deposit. The tank was a certified 4,640-litre double-walled fuel tank mounted on a steel sled used during winter drilling activities. It was inadvertently left behind on the ice surface by one of our drilling contractors after a 2019 winter drilling campaign and partly sank in the lake after freshet in 2019.

The tank was seen resting on its side, in shallow water. Given the fairly shallow water depth at this location, the fuel tank was partially submerged in the lake. The information received from our drilling contractor seems to suggest that this fuel tank was essentially empty after the drilling program when left at this location.

A declaration for a potential reportable event was submitted the same day (on August 18th 2020) to the Spill Report Line, to the Nunavut Water Board and to inspectors from Kivalliq Inuit Association, Crown-Indigenous Relations and Northern Affairs Canada and Environment Canada.



Figure 1. Fuel tank in the lake, August 19th, 2020

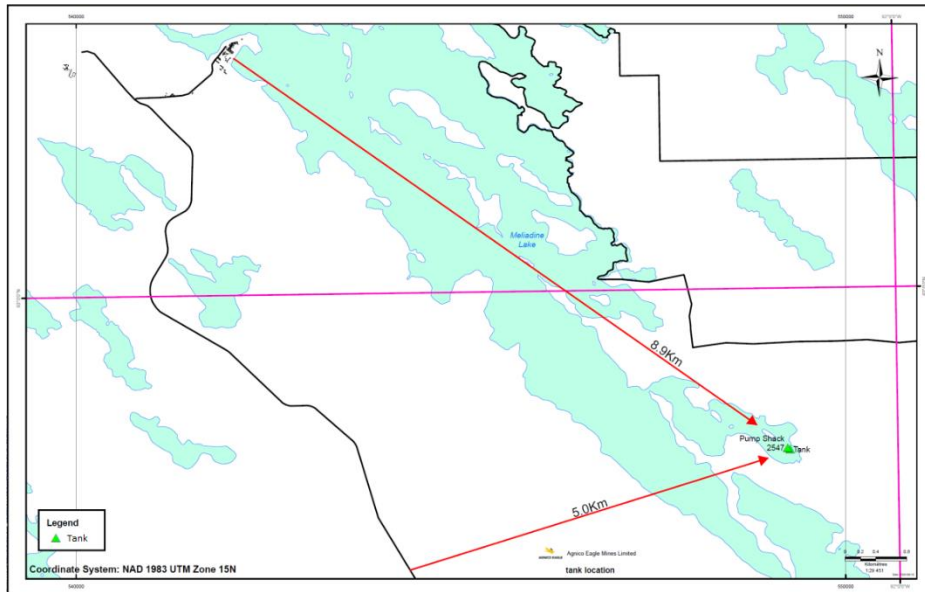


Figure 2. Location of the fuel tank

IMMEDIATE ACTIONS TAKEN

An investigation was immediately launched in conjunction with the elaboration of an action and mitigation plan to ensure the lake was monitored and protected in the vicinity of the fuel tank.

Initial information available provided by our drilling contractor was that the fuel tank was inadvertently left behind, on the lake by one of our drilling contractors after a 2019 drilling campaign and that it was essentially empty after the drilling program when left at this location.

August 19th

A visit of the area was conducted on August 19th by the Nunavut Environmental and the Geology departments. A marine containment barrier and absorbent booms (see Figure 3) were installed around the tank as a preventative measure, even if no visual evidence of a fuel (diesel) spill was seen on the water surface or on the shoreline. Several walks along the shore were conducted to verify if there were any evidence of a spill or contamination, none was observed.

Also, all the previously available water samples in the area including the fresh water supply samples at the mine were reviewed by our Environmental department and no indication of a fuel contamination was detected upon lab analysis.



Figure 3. Fuel tank inside containment barrier and absorbent booms

August 20th

A formal investigation was initiated by Agnico Eagle on August 20th to better understand the sequence of events. Available information was collected and reviewed. A team of divers arrived on site and started to plan the first dive to assess the condition of the tank.

A fly-over by helicopter and another walk along the shoreline were conducted by Agnico Eagle and no evidence of contamination was again observed.

Scenarios/options to remove the fuel tank from the lake were developed and analysed by a team involving Agnico Eagle and the drilling contractor owning the tank. It was decided to elaborate the plan slowly to ensure to develop a robust and safe action plan that would result in a safe removal of the tank.

August 21st

Divers proceeded to their first dive on August 21st and assessed the tank and surrounding ground condition. Two of the three caps normally installed at the top of the fuel tank were missing. Using a camera, the divers were able to show that the tank did not present any evidence of containing fuel and was partially filled with water. The overall condition of the fuel tank was fine, and the bottom of the lake did not show anything problematic that could prevent its extraction up to the shore. The tank was lying on its side and needed to be pivoted to bring it back to its normal position (skids at the bottom).

Based on the information obtained by the drilling contractor, Orbit Garant Drilling (OGD), the fuel tank was essentially empty when it was left on the ice surface after the 2019 winter drilling program. The drilling contractor informed Agnico Eagle that it was never realized that one of their fuel tanks was missing. This event was an unintentional event that could be linked to some gap in communication during a crew change.

Another walk along the shoreline was conducted by Agnico Eagle and again, no evidence of contamination was observed.

August 22nd

On August 22nd, the divers replaced the two missing caps on the fuel tank. New aluminium caps were used and the threads were sealed with Teflon. They also installed buoys above the bigger boulders between the tank and the shore to create a preferred pathway for the extraction operation in order to avoid them during the winching operation.

Cables were attached at specific points on the tank and on the sled to have some pulling options during the upcoming operation. Divers confirmed that the overall condition of the fuel tank had not changed (in fine condition), that the bottom of the lake didn't show anything problematic that could prevent its extraction (mostly sand and some boulders). The tank lying on its side needed to be pivoted first to bring it to its normal position (skids at the bottom). Equipment was transported by helicopter in preparation for the extraction of the fuel tank.

August 23rd

The divers proceeded with a third dive on August 23rd to reassess the tank and surrounding ground conditions. Absorbent booms around the tank were re-anchored to form a shape that would allow the pivoting operation, the sleigh's upright position and all other manipulations required.

Divers confirmed that the overall condition of the fuel tank and surrounding area had not changed.

In preparation for the operation, a 4,500-liter water container was heliported and filled with water on the shore to be used as an anchor during the pivoting operation (see Figure 5). Straps were attached to the container and a chain block was installed. The cable was attached from the container to the side of the submerged tank and a slight tension was applied. Divers observed that only by this slight tension the tank was starting to rise. The skid that would act as a pivot point seemed to be anchored securely enough to the ground so that any other means to avoid its sliding during the lifting operation would be unnecessary.

Environmental and pulling equipment was transported by helicopter in preparation for the extraction of the fuel tank.

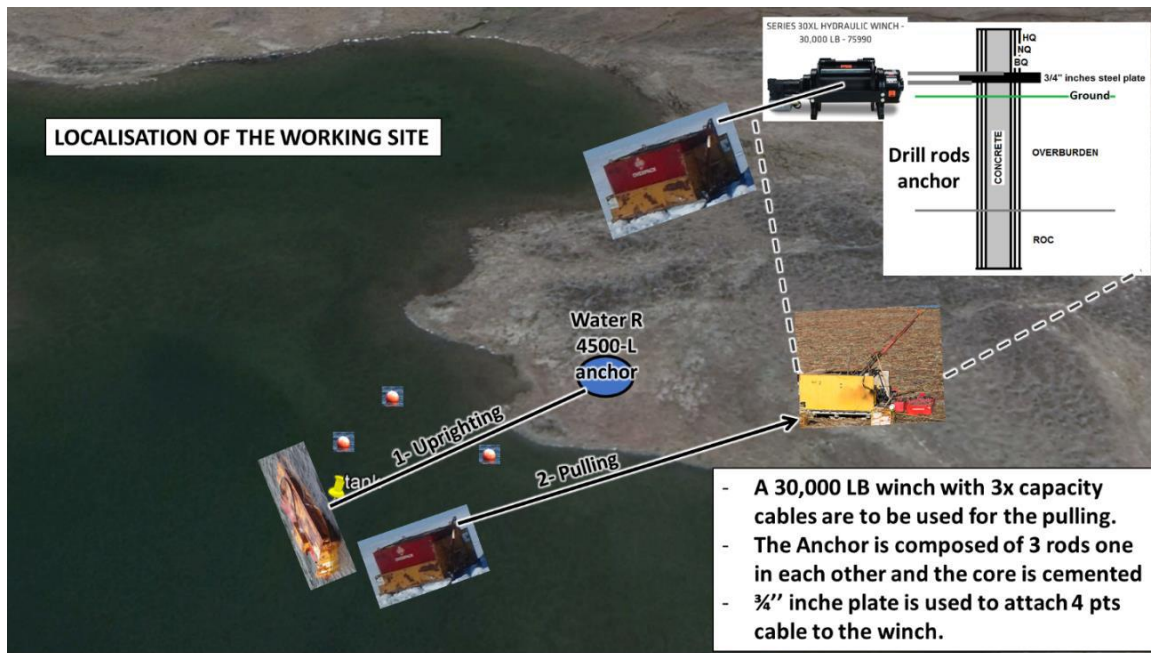


Figure 4. Plan view of the planned operation

August 24th

Experienced workers arrived at the Meliadine site on August 24th and a detailed Job Hazard Assessment was conducted by Jérôme Lavoie – AEM, Christian Rousseau – OGD, Tommy Thelland – OGD, Morgan Hjorth – AEM, Sara Savoie – AEM, Taylor McComber – DIVEX.

Methodology of the pulling operation was reviewed in preparation of the action plan application (Appendix B) to ensure the action plan was robust and safe and will result in a safe removal of the tank.

The remaining equipment needed for the operation was transported by helicopter in preparation for the extraction of the fuel tank

August 25th

A task review and a risk assessment were completed again along with the remaining preparation work.

The 4 phases of the Action Plan (plan in Appendix B) were conducted on August 25th between 11AM CT and 6PM CT and resulted in a successful and safe tank extraction and according to plan. The tank was laid on the shore after being fully emptied and installed on two wood beams placed on a tarp on a flat surface. All the drums with the contaminated water pumped from the tank were transported to

the Meliadine mine site to be stored until transported to a treatment facility (see Figures 6 to 9)

The tarp was flipped over the tank and secured with ropes to fully wrap it.

A bulldozer will bring back the tank to the camp next winter to minimize damage to the tundra.



Figure 5. Diver preparation



Figure 6. Fuel tank being extracted from the lake



Figure 7. Fuel tank is on land and secured



Figure 8. Fuel tank general location with drums ready to be transported

WATER SAMPLING

A review of the Meliadine Mine water samples was conducted by the Meliadine Environmental department. The conclusion of this review including data from 2018 to 2020 showed no evidence of contamination due to hydrocarbons.

During the extraction activities conducted to transport the fuel tank to the shore, three water sampling campaigns were conducted. A first sampling campaign was conducted on August 18th when the tank was located. This first campaign was used to define the conditions prior to the extraction operation. The second sampling campaign was conducted on August 25th immediately after the extraction operation. The third sampling campaign was conducted on August 29th a few days after the extraction as a precautionary measure in case the second campaign would have revealed signs of contamination.

The first sampling campaign included 34 samples, the second campaign included 35 samples (a sample in the tank added) and the third campaign included 39 samples as field duplicate and blanks samples were added to ensure a quality control.

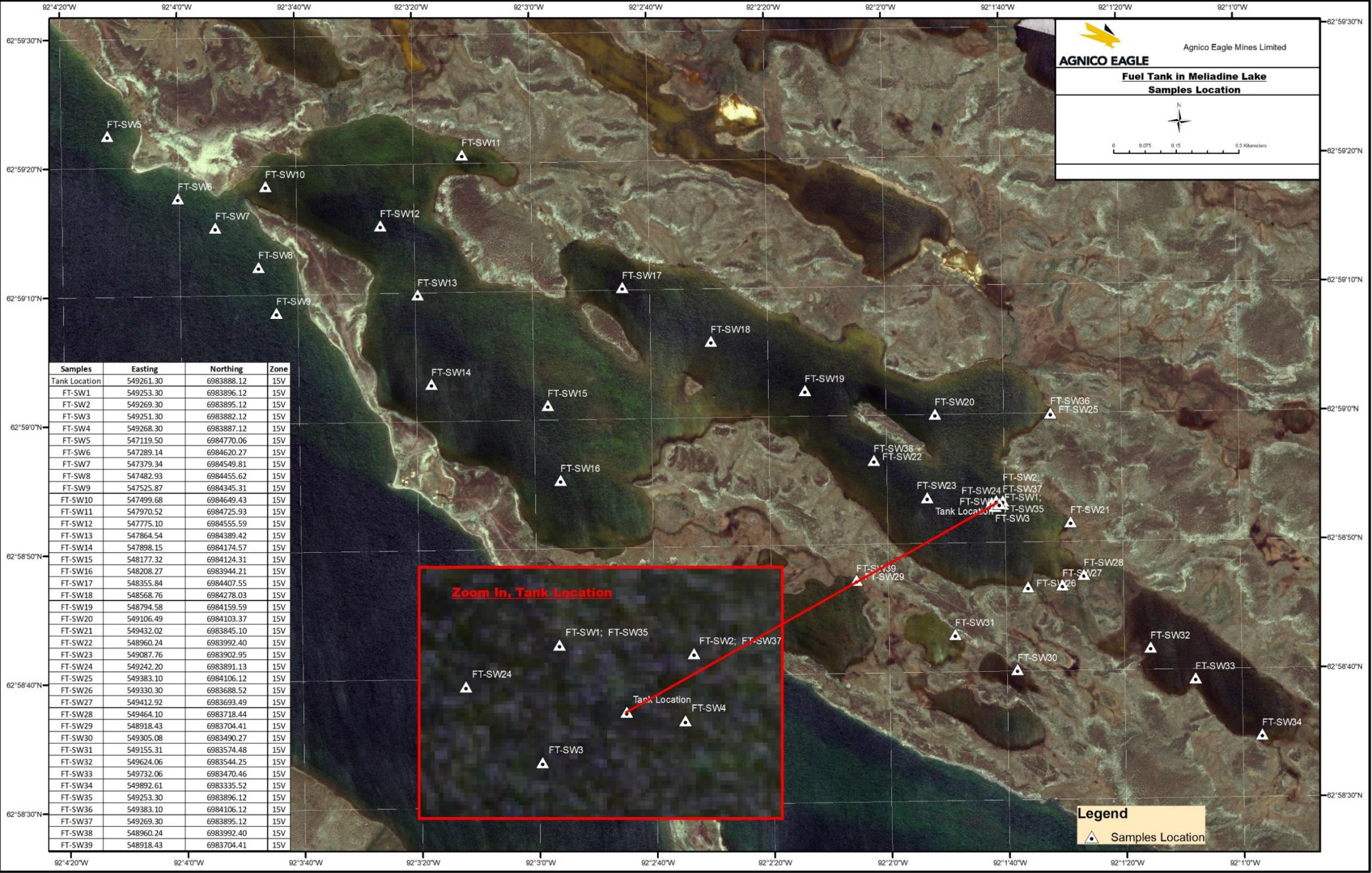


Figure 9, Water Sampling Locations

SAMPLE RESULTS ANALYSIS

The results obtained during these 3 sampling campaigns were reviewed and analyzed by Golder (their report is included in Attachment 1). Following the review of the samples results and the information provided by Golder, it does not appear that the activities associated with the tank recovery caused a significant impact to the surface water quality in the Meliadine Lake prior to, the same day and after the tank recovery.

Golder also recommended that based on the results of their review and the information provided by Agnico Eagle indicating that only a small volume of fuel could have been released by the tank, no further environmental monitoring (water, sediments or soils) is recommended.

CONCLUSION, LESSONS LEARNED AND CORRECTIVE MEASURES

Following the investigation, the actions conducted to extract the fuel tank from the lake, the inspection of the lake and the shore by helicopter, by boat and on foot and the sampling results analyzed by Golder, it is concluded that the fuel tank, left behind on the lake by one of our drilling contractors after a 2019 drilling campaign, was essentially empty after the drilling program and that there was not a significant volume of fuel that could have spilled during the period the tank was present in the lake. The investigation showed areas where the process could be optimized and to avoid any similar event in the future, members of both Agnico Eagle Mines Ltd. and OGD teams proposed a series of improvement measures:

- 1- Clarify the post-inspection procedure using a form including a clear procedure on picture taking after all material and equipment has been cleared off an exploration site. Winter trail pickets will not be removed until the final inspection is 100% completed.
- 2- Implement a simple and clear numerical system to identify the mobile fuel tanks on every exploration sites. Numbers will follow in sequence and will be clearly indicated on flags installed on the tanks. Work cards will include this numerical system for the drill and the pump station. At the end of the drilling season a verification will be made that all tanks are accounted for.
- 3- Implement a system to document which tank has been filled by Energy & Infrastructure (Agnico Eagle) and when. This information combined with corrective measure #2 will allow a better tracking of the quantity of fuel remaining in each tank and their location on the field.
- 4- A board will be installed at the supervisor's office with magnetic numbers to track the fuel tanks assigned to each drill sites and pump stations.
- 5- Communicate these new procedures to the drillers and the supervisors in charge of each department involved and ensure that they understand their

importance. Listen to suggestions that can improve these procedures. Meet with stakeholders for final approval.

- 6- Make sure that for all water sampling campaigns, duplicate and blanks are taken to ensure that a quality control is available.

These measures will be implemented at the other Agnico Eagle Exploration projects.

Agnico Eagle is confident that the implementation of the above mitigation measures has improved the robustness of our process and will effectively prevent any future event.

A handwritten signature in black ink, appearing to read 'Denis Vaillancourt', written over a horizontal line.

Denis Vaillancourt

Exploration Manager, Canada

CC: Michel Julien, Martin Plante, David Frenette

APPENDIX A; INITIAL COMMUNICATION FROM CIRNAC

From: Shouldice, Atuat (AADNC/AANDC) <atuat.shouldice@canada.ca>
Sent: Tuesday, August 18, 2020 9:35 AM
To: Dan Gorton <dan.gorton@agnicoeagle.com>; Sean Arruda <sean.arruda@agnicoeagle.com>; Meliadine Environment Supervisors <meli.environment.supervisors@agnicoeagle.com>; Meliadine Environment <meli.environment@agnicoeagle.com>
Cc: Pasalic, Omer (AADNC/AANDC) <omer.pasalic@canada.ca>; Justin Hack <justin.hack@canada.ca>; Christine Wilson <Christine.Wilson3@canada.ca>; Jeff Tulugak <jtulugak@kivalliqinuit.ca>
Subject: [EXTERNAL] Drill fuel tank sled in Lake

CAUTION: EXTERNAL

Good Morning

Yesterday on our way back from Chesterfield we came across a steal sled and fuel tank from your exploration program in a lake, please contact me as soon as possible so we can discuss how this will be addressed.

Here are the coordinates N62 58' 53.0" w092 01' 41.2" and attached is a picture. The site is between main camp and the drilling area.

Atuat Shouldice

Water Resource Officer

Kivalliq Region, Field Operations Unit

Crown-Indigenous Relations and Northern Affairs Canada

Atuat.Shouldice@Canada.ca / Tel: (867) 645-2840 / Mobile: (867) 645-7389



Crown-Indigenous Relations and Northern Affairs Canada
Relations Couronne-Autochtones et Affaires du Nord Canada

***** We have moved into our new office, but do not have phone services yet*****

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APPENDIX B; ACTION PLAN

Action Plan in 4 Phases

PHASE 1 – UPRIGHTING OF THE TANK WITH THE DIVERS

The first phase was to tilt and bring back the fuel tank to its normal position, which was placed upward on its skids.

Floating matting and booms have been repositioned to make sure they contain and collect any potential contamination and do not hinder the work.

Preparation

- Installed barricades & signs in a 100m radius to limit access of possible observers around the site to prevent any incidents.
- Sling with the helicopter on the shore an empty 4,500-liter water reservoir to store fresh water during drilling activities to act as counterweight when filled with water for the tilting operation. This reservoir was considered clean and has been emptied when the tilting operation is completed.
- Attached a cable for the chain block to the upper part of the sleigh and bring the cable to the shore. This cable was used to tilt the fuel tank.
- Anchored the booms and the mats with cables so they remained away from the fuel tank during the tilting operation.

Operation

- Attached the cable to the chain block on the water reservoir on shore.
- Anchored 2-3 metal pins in front of the skid to help stabilize the pivot point during the pull.
- Attached balloons to the fuel tank bottom hook and inflated them to increase buoyancy (filled with air from the diver's reservoirs). A second layer of balloons can be added to help lifting the fuel reservoir a little more. With the balloons, the tank lifted +-30cm.
- Nobody in 100m radius except the operator.
- Tightened the cable with the chain block, pulling until the top of the tank was moved forwardly. Loosen the cable then.
- Disinflated and removed the balloons.
- Attached all the cables that could have been needed for the pulling operation.

PHASE 2 – PULLING THE TANK TO THE SHORE

During this operation, the only people allowed within the 100m radius were the two operators. Balloons, cables and hydraulic hitch were used to help if a boulder is blocking the path of the sleigh. If so, the tension on the cable would be decreased if any task is needed besides the pulling.

Preparation

- The best path to be used to pull the tank has been determined by the divers and is indicated by the buoys.
- A series of picket were implanted for the location of the drill.
- Buoys were indicating the location of boulders and the pathway to follow. Divers confirmed that the bottom of the lake for the proposed pathway is a sand and gravel with some small boulders.
- A small drill rig with its supporting equipment was moved by helicopter on the shoreline. This drill rig was used to drill a HQ hole to serve as an anchoring system for the winch used to pull the fuel tank. The hole was drilled at a dip of 45 degrees toward the lake. The hole was drilled at least 1.5 m into bedrock. To increase the stiffness of the anchor system, a NQ core barrel and a BQ will be inserted in the HQ rods. The couplings of the rods included in the anchoring system will be disaligned to optimize its strength. The anchoring system corresponded to 3 layers of steel rods and provided a very stiff anchoring system.
- A ramp made of steel rods was used to allow the sleigh to reach the tundra.

Operation

The operators were senior superintendents of the drilling contractor in Nunavut. The divers are the persons that were attaching the cables.

- The right cable was used to rotate the sleigh, so its front points were properly aligned.
- The cable attached to the tong was pulled and the sleigh moved toward the winch attached to the anchoring system.
- The tension was monitored. The pulling continued until the tank was at the shore or the tension seems a little high. As soon as the top of the tank was sufficiently out of water (minimum 0.5 m), the pumping operation to transfer the fuel tank to drums on the shore began (using the boat).
- Pumping operation aimed at emptying the full content of the fuel tank. The collected drums were airlifted to camp before being sent to the south.
- When the emptying of the fuel tank was completed, the final pulling operation of the empty fuel tank began.

PHASE 3 – PUMPING THE TANK

A boat can be used if the tank is not directly accessible by the shore to install the pump.

The drums were flown back to the camp to be stored in a seacan.

Preparation

- Installed containment berm and spill kit beside the drill site, 25 empty 205 liters drums were transported nearby. Ensured the length of hose was sufficient and its integrity was adequate.

Operation

- Looked inside the tank if we could see fuel floating on the water.
- Installed the pump on the tank. One person at the tank with the pump, one at the drums with constant communication (visual, radio).
- Started the pumping. Water samples were taken from the last filled drum.
- When at least 4 drums were filled and capped, rolled them in a net to be picked up by the helicopter. Two persons were available at the drop zone to receive the net, empty it and roll the drums on a pallet. Straps were installed to secure the load.
- Continued the pumping until the pump was breathing air then stopped.
- Packed everything up.
- Get to the final phase of the pulling.

PHASE 4 – PACKING THE TANK FOR THE WINTER

Preparation

- Installed containment berm on the ground on the tundra in front of the drill where the tank was stored.
- Installed a ramp to climb the sleigh on the tundra and into the berm.
- Put some pallets inside the berm so the sleigh did get stuck to the berm during the winter.

Operation

- The cable attached to the tong was pulled and the sleigh was moved forward towards the drill.
- The tension was monitored. As soon as the tank sleigh was inside the berm, all cables were detached.
- Packed everything up. Moved the drill back to its original setup.
- Covered the tank with a tarp for the winter.
- Documented the operation with pictures.
- When the pulling operation was completed, proceed to another round of water sampling similar to the one done earlier and starting from the fuel tank location and move downstream.
- Pickup all booms and matings.
- Leave only one buoy for the original location of the fuel tank.
- Conclude the investigation report.