2022-11-28 MBK Fuel Tanker Diesel

GN reference #: 2022-544

Please find the following information as a follow up to the spill report, submitted November 28, 2022 by Agnico Eagle Meadowbank Complex. This detailed report is submitted to the Inspector in compliance with the conditions under the Nunavut Water Board License 2AM-MEA1530, Part H, Item 8c. As required by Section 18(3) of Environment Canada's Environmental Emergency Regulations pursuant to paragraph 201(1)(a) of the Canadian Environmental Protection Act, 1999, the information required in the written report referred to in Schedule 8 of the regulation have been submitted electronically on the Single Window Information Management (SWIM) System on December 16, 2022.

Spill Description

During operations at the Meadowbank Complex, two fuel tankers operated by Arctic Fuel Services Ltd. met along the All-Weather access road (AWAR). When the tankers crossed each other on the road, the northbound tanker moved to the shoulder of the road but lost sight of the edge of the road and tipped over. Upon the impact with the ground, the reservoir was pierced in 3 locations causing a spill of 29,000L of diesel fuel. The driver was not significantly injured in the accident.

Figure 1. Tanker overturned at KM87 (2022-11-29)

Figure 2. General view of incident from the road (2022-11-29)

Spill location: 64 57’10.8” 96 14'40.7" on IOL.

There was no discharge to any receiving watercourse. Distance to the closest downstream water body is 1 km to the unnamed lake South-East of AWAR Km87 (referred to as Pond A in this report).

Cause of Spill

The spill was caused by the damage to the side wall of the reservoir of a fuel tanker sustained when the tanker tipped over. The accident was caused by the loss of control of the northbound fuel tanker from losing sight/awareness of the edge of the road. The northbound tanker reported going 10km/h over the maximum authorized speed in the procedure when meeting oncoming traffic.

Remediation Actions

- Code 1 was immediately called to mobilize the emergency response team, and the emergency response plan was initiated according to the Meadowbank Complex Spill Contingency Plan;
- The time elapse between the initiation of the Code 1 and the arrival on scene of the first responders was approximately 30 minutes;
- An immediate containment plan was initiated to minimize the impact on the environment, following the guidelines outlined in the Spill Contingency Plan, and consisted of:
    - The deployment of spill response material;
    - The delineation of the extent of the spill area (an identified "hot zone" and "cold zone");
    - The excavation of two trenches in the cold zone;
    - The construction of a berm along the edge of the hot zone;
    - The excavation of a trench in the hot zone;
    - The excavation of a sump to ease pumping operation;
    - The pumping of pooling diesel fuel with a vacuum truck;
- Fuel remaining in the damaged reservoir was transferred into an empty tanker;
- The tipped over tanker was then retrieved and brought to the Agnico Eagle maintenance team for evaluation;
- Excavation of contaminated material was initiated on November 29th, and is still currently on-going. Contaminated snow and material is being brought to the Meadowbank South Cell tailings storage facility;
- The delineated area by Agnico was presented to a CIRNAC regulatory representative on December 1;
- Downstream area of the spill was monitored with the help of a PID;
- Frequent updates of the remediation efforts to various regulators were initiated following the CIRNAC regulatory representative, on December 2nd. These communications are still ongoing;
- Teleconference held with GN, CIRNAC, KIA and ECCC on December 15th, 2022. Meeting minutes were sent on December 16th, 2022 along with the long term proposed monitoring detailed below.

Excavation and Backfilling path forward:

- Soils samples will be taken in the remediated area, as well as further downstream of the spill area, and compared to CCME Residential Guidelines;
    - Soil samples will also be taken 1km north of the spill area to confirm CCME Residential Guidelines are appropriate targets. Should undisturbed sample results not meet CCME Residential Guidelines, further discussions with regulatory bodies will take place regarding acceptable remediation level;
- Excavate all contaminated material, or to bedrock and establish collection sump;
- Place geotextile membrane on top of excavated area to avoid contaminating snow, should contaminated material remain in the area;
    - Snow accumulation will be removed in end April/ early May;
- Install a snow fence around the excavated area to protect possible wildlife;
- Further remediation during Freshet may be necessary based on observation.
- Backfill to occur following confirmation of no contamination in the area.

Figure 3. Collection sump established (2022-11-29)

Figure 4. Pumping to totes (2022-11-29)

Volumetric Summary

- Recovered fuel inside the damaged reservoir:
  - 10,800L
- Volume spilled:
  - 29,000L
- Contaminated material recovered to date:
  - 1,000m^3
- Contaminated liquid recovered from ground:
  - 21,800L

Monitoring plan

- Ice profile and water analysis will be collected downstream of the spill area at Pond A and Pond B;

- Downstream receptor (Pond A & B) to be sampled weekly during freshet; Additional sampling points closer to the spill may be identified during monitoring;
  - Compare to CCME Guideline;
  - As communicated by the Inspector, a new license monitoring may be added downstream of the spill 2022-544. Further details will be communicated by the Inspector in this regard;

- Alternate-day visual inspection of the contaminated zone and sump (including using petroleum test strips in ponding water, and PID meter);
  - Collection sumps will be emptied during freshet with vacuum truck if sheen is present or test strip are positive;
  - Increase in monitoring if unexpected results (positive hits) & flow observation;

- Initiate a round of soil sampling during thaw season (June-July-August-September in 2023);
  - Compare to CCME Guideline;
  - Remediate if required
  - Review frequency based on results;

- Add monitoring plan to the 2023 Freshet Action Plan.

Corrective measures

1. An investigation into the root causes of the incident was launched;
2. Review the current AWAR traffic procedure to address any deficiencies – especially regarding crossing equipment, right of way and winter conditions;
3. Until procedure is reviewed, all southbound tankers/tractor trailers must come to a complete stop when meeting a northbound tanker/tractor trailer, giving the right-of-way;
4. Road safety study to be completed;
    - This includes the review of building or restoring larger pullouts;
5. Agnico will install reflectors on the East side of the road (opposite side of flags) in critical areas identified by Arctic Fuel services to improve road edge awareness;
6. Review and reinforced road safety policies, procedure, and practice with all AWAR drivers;
7. Area to be backfilled with Non-Acid Generating (NAG) material once the area has been deemed remediated.

Closure

We trust that the above details described appropriately the spill incident that occurred at the Meadowbank Complex on November 28, 2021 and the remediation & monitoring activities. Please contact the undersigned should you have any questions.

AGNICO EAGLE

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Figures

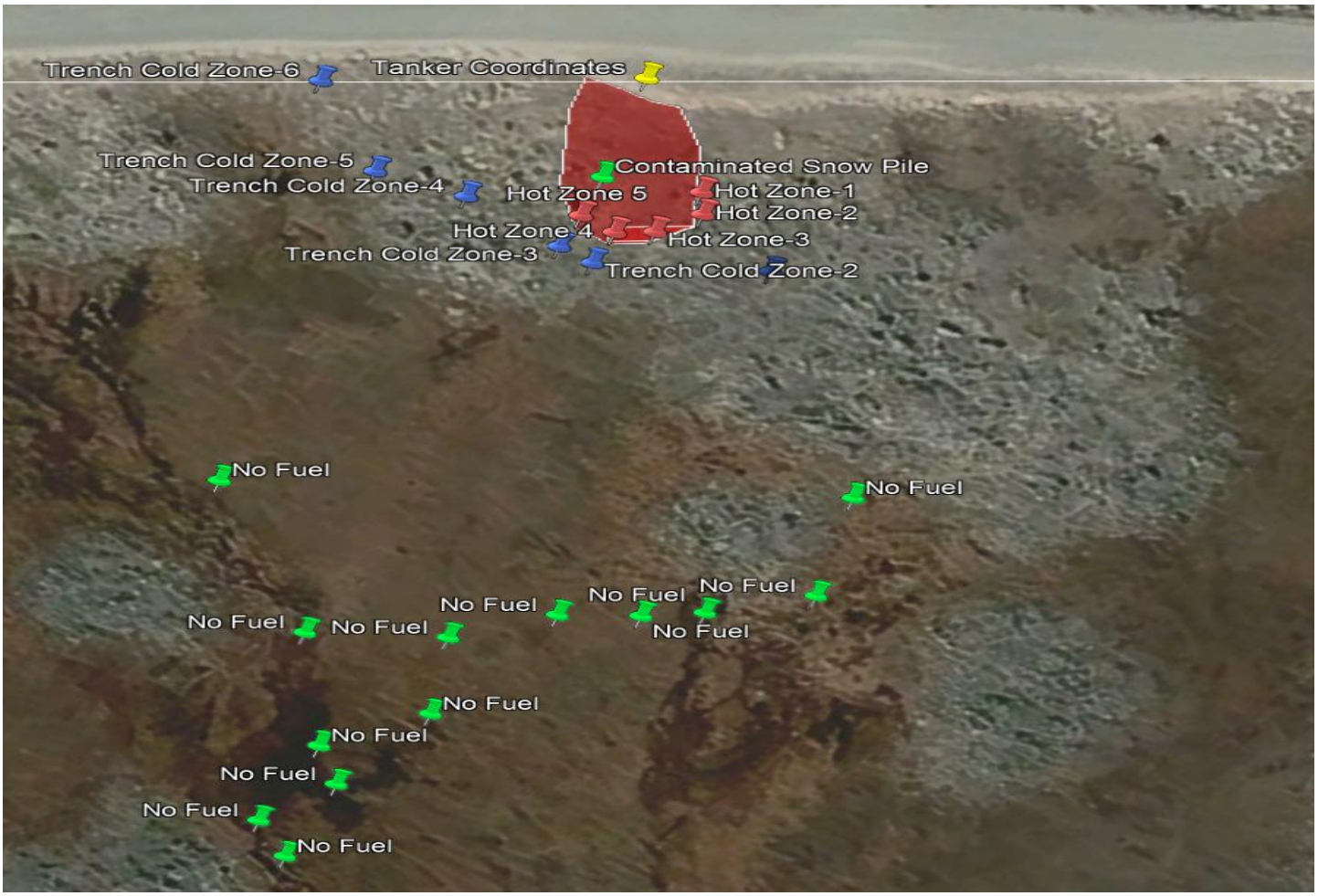

Figure 5. Aerial sketch of spill & tested areas

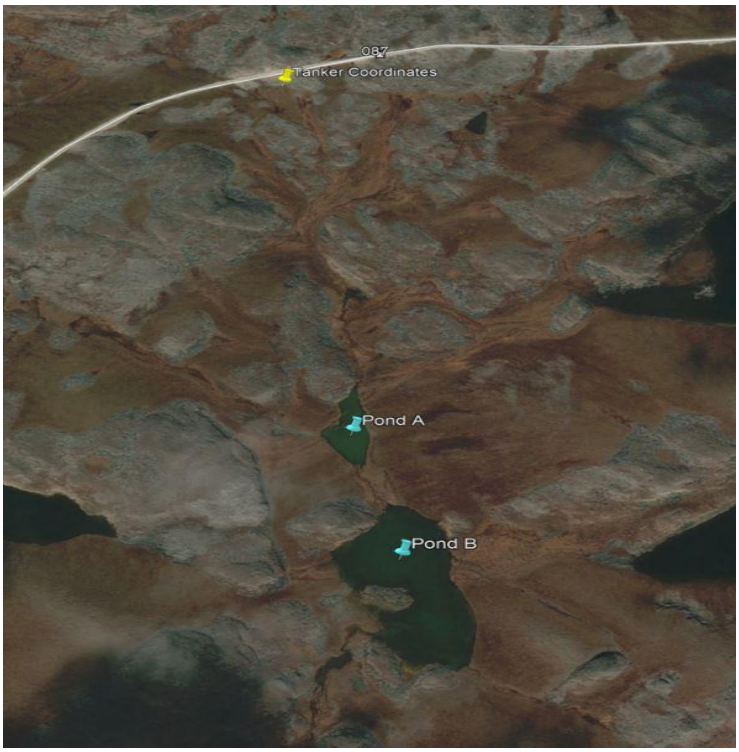

Figure 6. Aerial sketch of downstream receptor (pond A & B)

Figure 7. Damaged areas of tanker - 2022-11-30


Figure 8. Access ramp - 2022-11-30

Figure 9. Surface drainage trenches -2022-12-02

Figure 10. Excavation of Sump - 2022-12-04

Figure 11. Overview of spill area - 2022-12-04

Figure 12. Snow testing with PID after removal - 2022-12-06

Figure 13. Spill zone delineated for snow removal after blizzard and additional excavation 2022-12-07

Figure 14. Spill area after snow removal 2022-12-08

Figure 15. Excavation of spill area 2022-12-12

Figure 16. Excavation of spill area 2022-12-12