



WRITTEN WARNING

Nunavut Waters and Nunavut Surface Rights Tribunal Act

File: 2022-KIV13-KA

December 21, 2022

Sent via Registered Mail and Email with acknowledgement of receipt

The purpose of this warning is to inform:

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Canada

[2022-KIV13-KA]



That information received from, Agnico Eagle Gold Mine Ltd. (AEM) and the NT-NU Spill Line between February 1, 2022, and July 1, 2022, by the undersigned Inspector designated by the Minister of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, gives me reasonable and probable grounds to believe that Orbit Garant Drilling Inc. (OGD) are in contravention of sec 12 (1)(b) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*.

ALLEGED VIOLATION

As a result of a review of the collected information, I, the undersigned Inspector have reasonable grounds to believe that the following violation has been committed:

1. That OGD, between March 1, 2022 and July 1, 2022 at or near the Meliadine Gold Project, in the Nunavut Territory, did deposit or permit the deposit of waste in a place, to wit: top of ice on Lake A8 under conditions in which the waste may enter waters in Nunavut, contrary to sec 12(1)(b) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act S.C 2002, c. 10*.

ALLEGED FACTS

As a result of my inquiries into the matter I, the undersigned Inspector, determined the following alleged facts:

1. AEM operates the Meliadine Gold Project in the Nunavut Territory.
2. OGD is contracted by AEM to conduct drilling activities, including on ice drilling on behalf of AEM at the Meliadine Gold Project.
3. The Meliadine Gold Project is issued Nunavut Water Board Water Licence no. 2BB-MEL1424 (Licence) from the Nunavut Water Board for the purpose of exploration/collecting a bulk sample.
4. The Meliadine Gold Project is authorized to conduct on-ice drilling in accordance with the conditions of the Licence, such as but not limited to:
 - a. The Licensee shall dispose of all drill waste, including water, chips, muds and salts (CaCl₂) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed sump or an appropriate natural depression located a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created. (as stated in Part F Item 2 of the Licence)



5. On February 8, 2022, WRO WILSON received spill report 2022-029 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 15 liters of hydraulic fluid spilled on the ice surface.
6. On February 28, 2022 WRO WILSON reviewed AEM FEIS information document titled "Volume 7: Freshwater Environment". The document indicated that figure 7.5-22 shows the presence of Arctic Grayling in Lake A8 (page 7-375).
7. On March 5, 2022 WRO WILSON received spill report 2022-065 from the NT-NU Spill Line that stating while OGD was drilling at Lake A8 10 liters of diesel fuel spilled on the ice surface.
8. On March 18, 2022 WRO WILSON received spill report 2022-084 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 15 liters of cuttings spilled on the ice surface.
9. On March 20, 2022 WRO WILSON received spill report 2022-089 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 10 liters of diesel fuel spilled on the ice surface.
10. On March 29, 2022 WRO WILSON received spill report 2022-105 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 20 liters of recirculation water spilled on the ice surface.
11. On April 3, 2022 WRO WILSON received spill report 2022-111 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 6 liters of recirculation water spilled on the ice surface.
12. On April 1, 2022 WRO WILSON received spill report 2022-112 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 150 liters of recirculation water spilled on the ice surface.
13. On April 14, 2022 WRO WILSON received spill report 2022-132 from the NT-NU Spill Line stating that while OGD was drilling at Lake A8 0.5 liters of diesel fuel spilled on the ice surface.
14. On April 18, 2022 WRO WILSON received spill report 2022-136 from the NT-NU Spill Line that while OGD was drilling at Lake A8 0.5 liters of engine oil spilled on the ice surface.
15. On April 19, 2022 WRO WILSON attended Lake A8 to conduct Licence inspection of AEM on-ice drilling program. A report was produced following this inspection. I reviewed this report and learned that several deficiencies were noted during the inspection, such as but not limited to:
 - a. Poor storage of calcium chloride bags as well as some spillage onto the ice surface.
 - b. The ice surface around the drills is generally stained with grey material.
 - c. The skids of the drills and other equipment have mud on them from summer drilling which is being transported onto the ice surface of Lake A8.



16. On May 13, 2022 WRO WILSON attended Lake A8 to conduct a follow-up Licence inspection. A report was produced following this inspection. I reviewed this report and learned the following:
- Drills and ancillary had been removed from the ice surface of Lake A8.
 - The overland trail to the lake is rutted and eroded with turbid surface water being carried into Lake A8.
 - On the ice surface of Lake A8 are many piles of unknown grey material that extend for approximately 600m from the South-east to North-west side of the lake.
 - Within the piles are pools of water with unknown grey, black, yellow and white materials.
 - The smell of hydrocarbons is present.
 - Oily rags, wood debris, and other garbage were noted on the surface and shores of Lake A8.
17. On May 17, 2022 WRO WILSON received spill report 2022-188 from the NT-NU Spill Line stating that following May 13th Licence inspection, an unknown amount of various substances related to drilling operations were observed on the ice surface of Lake A8.
18. On May 18, 2022 Environment Climate Change Canada (ECCC), Enforcement Officer DIDHAM, WRO WILSON and I (the undersigned Inspector) attended Lake A8 to conduct an inspection and collect samples at four locations on the surface of Lake A8 where water was pooled. An inspection report was produced following this. The report contained the following information:
- The samples were collected between 17:00 to 19:00 by EO Didham and WRO Amsel. All the samples have been collected in clean, lined, 5 gallon pale due to heavy winds and deteriorating weather conditions. A total of eight (8) bottles were collected from each pale for analysis for the following parameters: Total Dissolved Solids, Total Suspended Solids, pH, Total Metals, Hardness, BTEX (F1-F4), Conductivity, Alkalinity, Chloride, Nitrate, Nitrite, Sulphate and Daphnia Toxicity (LC50).
 - The locations and observations of the samples collected as follows:

Sample Name:	Locations:	Notes:
A8-01	N63° 00' 32.90", W92° 12' 09.65"	Pool of water on surface of the ice, grey material settled on the bottom of the pool, smells of fuel.
A8-02	N63° 00' 33.36", W92° 12' 10.88"	Pool of water on the surface of ice, visible sheen.



A8-03	N63° 00' 42.25", W92° 12' 24.98"	The water appears to be turbid and grey in colour, pooled inside the snow piles on the surface of ice.
A8-04	N63° 00' 42.40", W92° 12' 22.76"	Pool of water on surface of the ice, water appears turbid and is grey in colour.

- c. AEM Environment Department collected samples for the same parameters at all four locations. AEM and ECCC collected Trout Toxicity (LC50) samples at A8-02.
19. On June 20th, 2022 Anne WILSON, Environment Climate Change Canada Water Quality Specialist reviewed the results of the samples collected by ECCC, AEM and CIRNAC and stated in an email:
- Site 1 (A8-01) chemistry showed moderate levels of particulates (could have been clay drilling additives and/or drilling wastes) and elevated total hydrocarbons in the heavier fractions (indicating lubricants and perhaps some diesel). AEM's toxicity testing showed no acute toxicity to trout or Daphnia; minor to low sublethal effects would be expected associated with the particulates and hydrocarbons.
 - Site 2 (A8-02) showed no toxicity to either test organism in ECCC bioassays nor AEM's toxicity testing, and that is not surprising based on the chemistry. No red flags with concentrations reported for all parameters.
 - Site 3 (A8-03) had high aluminum, iron and elevated arsenic concentrations, which would potentially be related to drilling fines. This is supported by the TSS levels. There were negligible hydrocarbons in this sample. While the bioassays done by AEM did not indicate acute toxicity, the TSS would be in the sublethal toxicity range, notably so for juvenile fish life stages. Depending on form, the arsenic could contribute to toxicity but at those levels it would affect plankton more than fishes.
 - Site 4 (A8-04) had the highest hydrocarbon concentrations, along with moderately high levels of particulates. The hydrocarbons exhibited moderately low BTEX/F1 levels (which would be associated with moderate sublethal toxicity) and high levels of the heavier hydrocarbon substances (C10-34 in the F2 and F3 categories, e.g. from diesel to lubricating oils). These would exhibit a range in toxicity, depending on how water soluble they are. The AEM Daphnia test reported an EC50 of <6.25% (LC50>100%)."
20. Based on my experience and education I am aware that diesel fuel, drill waste, hydraulic and engine oil are considered a waste as defined in the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*.



THE LAW

Nunavut Waters and Nunavut Surface Rights Tribunal Act

waste means any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means, and includes

(a) any substance or water that, for the purposes of the [Canada Water Act](#), is deemed to be waste;

(b) any substance or class of substances specified by the regulations;

(c) water containing any substance or class of substances in a quantity or concentration that is equal to or greater than that prescribed by the regulations; and

(d) water that has been subjected to a treatment or change described by the regulations.

waters means inland waters, whether in a liquid or solid state, on or below the surface of land.

Deposit of waste

12 (1) Subject to subsection (2) and except in accordance with the conditions of a licence, no person shall deposit or permit the deposit of waste

(a) in waters in Nunavut; or

(b) in any other place in Nunavut under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter waters in Nunavut.

Principal offences

90 (1) Every person is guilty of an offence who contravenes subsection 11(1), section 12 or section 88 or who fails to comply with subsection 11(3) or with a direction given by an inspector under subsection 87(1).

(2) Every person who commits an offence under subsection (1) is liable on summary conviction,

(a) for a first offence, to a fine not exceeding \$250,000 or to imprisonment for a term not exceeding one year, or to both; and

(b) for a second or subsequent offence, to a fine not exceeding \$500,000 or to imprisonment for a term not exceeding one year, or to both.



Other Offences

91 Any person is guilty of an offence punishable on summary conviction who

- (a) contravenes subsection 86(4) or any regulations made under paragraph 82(1)(o), (p) or (q); or
- (b) wilfully obstructs or otherwise interferes with a licensee or any person acting on behalf of a licensee in the exercise of the licensee's rights under this Part, except as authorized under this or any other Act of Parliament.

Conclusion

This warning alleges contravention of sec 12(1)(b) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. This letter is intended to bring this matter to your attention to prevent further incidents and ensure compliance with *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. This document is not a finding of guilt or civil liability, nor an administrative adjudication.

This warning and the circumstances to which it refers will form part of CIRNAC's records of OGD, and will be taken into account in future responses to alleged violations and for internal purposes such as setting the frequency of inspections. CIRNAC will consider taking further action if; corrective steps to comply are not taken, or due diligence is not exercised.

The complete text of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* is available on the Queens Printer at <https://laws-lois.justice.gc.ca/eng/acts/n-28.8/>

For more information or to respond to the alleged facts contained in the warning, please call or write the undersigned. Your comments will be considered, and where appropriate, response provided. Any comments you make, as well as CIRNAC response will be maintained on the file with this warning on CIRNAC's records.

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