



September 20, 2022

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Sent via Email: [Jonathan.mesher@canada.ca](mailto:Jonathan.mesher@canada.ca)

**Re: Agnico Response to CIRNAC Inspection Report June 20, 2022**

Dear Mr. Mesher,

Agnico Eagle Mines (**Agnico**) is providing this letter in response to the comments received from CIRNAC on September 6, 2022, regarding Agnico's response to the CIRNAC Inspection Report (June 20, 2022) under the Type A Water License (2AM-DOH1335).

**1. COMMENT #1**

Is the upper reagent pad lined and surrounded by berms like the other reagent pad?

**1.1 Agnico Response**

The Upper Laydown is a laydown pad that is currently lined in one portion.

**2. COMMENT #2**

In the inspection report response the licensee states the following; "Consumable chemicals received in seacans from the sealift are managed and stored as per Hope Bay's Spill Contingency Plan until they are ready for use, where they are moved to the camp pad." In the table below from the 2021 spill contingency plan states it identifies the below products to be stored in the TIA reagent pad (a lined facility), please ensure the products are stored in a lined and berm facility as approved by the NWB in the approved Spill management plan. Or provide written approval from the NWB to store the products outside the TIA reagent Pad and outside a lined bermed facility.



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Storage Location	Facility Description/ Storage Capacity	Tank Description	Containment Capacity	Products Stored	Maximum Expected Quantity Stored
TIA Reagent Berm	Locked Seacan	NA	Seacans	Promoter	30, 100kg
	Locked Seacan	NA	Seacans	Frother	16,000 kg
	Locked Seacan	NA	Seacans	Flocculant Low pH	16, 000 kg
	Locked Seacan	NA	Seacans	Sodium Cyanide	240,000 kg
	Locked Seacan	NA	Seacan	Caustic Soda	450,000 kg
	Locked Seacan	NA	Seacans	Flocculant High pH	2,000 kg
	Locked Seacan	NA	Seacan	Sodium Metabisulphate	240,000 kg
	Locked Seacan	NA	Seacans	Copper Sulphate	125,000 kg
	Locked Seacan	NA	Seacans	Hydrochloric Acid	4000 kg
	Locked Seacan	NA	Seacans	Sodium Benzoate	20,000 kg
	Locked Seacan	NA	Seacans	Silica Sand	5000 kg
	Locked Seacan	NA	Seacans	Borax	12,500 kg
	Locked Seacan	NA	Seacans	Soda Ash	8750 kg
	Locked Seacan	NA	Seacans	Potassium Nitrate	5000 kg

### 2.1 Agnico Response

As per the Hope Bay Spill Contingency Plan (2022), the complete name of the storage location identified in the above table is 'Upper Laydown TIA Reagent Berm' (Figure 2-1). Agnico regrets if this has caused confusion with the former reagent storage location by the TIA named 'TIA Reagent Berm'. Agnico acknowledges that 'TIA Reagent Berm' should be removed from the table so that the storage location is solely identified as 'Upper Laydown'. The Upper Laydown is also visually identified as a chemical storage location in Plate A.3. as part of the Doris Module (Module A) of the Spill Contingency Plan (2022), whereas the former 'TIA Reagent Berm' is not included. Agnico can confirm that the reagents are managed and stored as per Hope Bay's Spill Contingency Plan (2022) until they are ready for use, where they are moved to the camp pad.

Since taking ownership of the project in 2021, Agnico has been working to optimize the long-term chemical storage and handling processes utilized at Hope Bay. This includes containment system standards as well as final and temporary seacan storage locations. In accordance with Water Licence 2AM-DOH1335 Part H Item 4, Agnico intends to fully line the Upper Laydown area and grade the pad towards a containment sump. Construction is planned for the 2023 summer season.



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<div> <div>Hope Bay Spill Contingency Plan June 2022</div> <div>   AGNICO EAGLE HOPE BAY </div> </div>					
Storage Location	Facility Description/ Storage Capacity	Tank Description	Containment Capacity	Products Stored	Maximum Expected Quantity Stored
Roberts Bay Waste Management Facility Generator	Internal tank @ 2250 L	Pre-fabricated, double-walled,	Internal steel spill containment	Diesel Fuel	2025 L (2)
Roberts Bay Incinerator	1 @ 1500 L (Inactive)	Pre-fabricated, double-walled	Steel Spill containment	Diesel Fuel	1350 L (2)
	2 @ 1000 L (Inactive)	Pre-fabricated, double-walled		Diesel Fuel	2 @ 1000 L (1)
Quarry 2 Incinerator	1 @ 4500 L	Pre-fabricated, double-walled	Steel Spill containment	Diesel Fuel	4500 L (1)
Waste Management Facility Waste Oil Burner	2 @ 850 L	Plastic Cube	Spill containment	Waste Oil	1700 L (2)
Rob Bay Muster Station	1 @ 1240 L	Pre-fabricated, double-walled, portable	Steel Spill containment	Diesel Fuel	1116 L (2)
Doris Vent Raise	1 @ 70,000 L	Pre-fabricated, double-walled, portable	Gravel/HDPE, 77,000 L	Diesel Fuel	70,000 L (1)
Doris Airport Tower Generator	1 @ 1240 L	Pre-fabricated, double-walled, portable	Steel spill containment; in seacan	Diesel Fuel	1116 L (2)
Doris Pump House	1 @ 1240 L	Pre-fabricated, double-walled, portable	HDPE/Wood spill containment	Diesel Fuel	1116 L (2)
Geotech Shop	1 @ 1240 L	Pre-fabricated, double-walled, portable	Steel spill containment	Diesel Fuel	1116 L (2)
Main Shop	2 @ 1240 L	Pre-fabricated, double-walled, portable	Steel spill containment	Diesel Fuel	2 @ 1116 L
Explosive Berm (TIA Access Road)	Seacan	NA	NA	Amex (Ammonium nitrate)	900,000 kg (3)
Mill Building	1 @ 1240 L	Pre-fabricated, double-walled, portable	Steel spill containment	Diesel Fuel	1116 L (2)
Upper Laydown TIA Reagent Berm	Locked Seacan	NA	Seacans	Collector	90,000 kg (3)
	Locked Seacan	NA	Seacans	Promoter	30, 100kg (3)
	Locked Seacan	NA	Seacans	Frother	16,000 kg (3)
	Locked Seacan	NA	Seacans	Flocculant Low pH	16, 000 kg (3)
	Locked Seacan	NA	Seacans	Sodium Cyanide	240,000 kg (3)
	Locked Seacan	NA	Seacan	Caustic Soda	450,000 kg (3)

Figure 2-1- Screenshot from Hope Bay Spill Contingency Plan (2022) Table A.2. Doris Fuel and Chemical Storage Locations showing complete name of 'Upper Laydown TIA Reagent Berm'



### 3. COMMENT #3

In the response the licensee states that; "Runoff and seepage is captured in the system and is transported to the TIA." Please elaborate on how the licensee is ensuring this statement true, has the licensee conducted any tests or studies to ensure no seepage is passing the permeable wells? What is stopping the waste water that enters the well from leaving the well on the downstream side?

#### 3.1 Agnico Response

The sumps are constructed of perforated HDPE and fitted with a submersible pump and discharge hose. The sumps are maintained near empty with continuous operation of the pump when triggered by the water level in the sump, stopping water that enters the well from leaving the well on the downstream side. The pumps are inspected at a frequency of twice per week by site services as part of a preventative maintenance program.

The potential of seepage bypassing the sumps and impacting downstream receptors is investigated annually in the Aquatic Effects Monitoring Program (AEMP) Report which for the 2021 year was presented to the Nunavut Water Board on March 31, 2022. The primary goals of the AEMP are to evaluate potential project effects on the surrounding freshwater environment during the construction and operation of the Project, verify predictions from the Madrid-Boston Final Environmental Impact Statement (FEIS), and provide a mechanism to respond to potential project effects in the freshwater environment through the Response Framework. This framework sets environmental thresholds that, if exceeded, would trigger further investigation and/or mitigation.

For any seepage bypassing the Doris sumps, the 2021 AEMP included lakes adjacent to infrastructure that have the greatest potential to receive non-point-source inputs such as runoff/seepage (i.e., Doris Lake). Aquatic components evaluated in 2021 included the following: fish habitat (water level and ice thickness), under-ice dissolved oxygen concentration, water temperature, water quality, and phytoplankton biomass.

Table 1 presents a summary of the overall findings of the evaluation of effects for the 2021 AEMP at Doris Lake. No adverse project-related effects to fish habitat (water level and ice thickness), under-ice dissolved oxygen concentrations, water temperature, water quality, or phytoplankton biomass were detected at Doris Lake in 2021. To date, no low action level responses have been triggered for any assessed variable in the AEMP at Doris Lake.

**Table 1. Summary of Evaluation of Effects for 2021 AEMP at Doris Lake**

Variable	Conclusion of Effect	Low Action Level Triggered?
Fish Habitat (Water Level and Ice Thickness)	No Effect	No
Physical Limnology (Dissolved Oxygen and Temperature)	No Effect	No
Water Quality	No Effect	No



Phytoplankton Biomass (as Chlorophyll a)	No Effect	No
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#### 4. COMMENT #4

In the inspection report response the licensee states that; “The estimated amount being less than 100L” and “Since the oil is covered from the element by the building, the risk of it migrating is low. Any runoff from the area will be captured by the pollution control pond. We will plan the clean up if the building has to be moved or at the end of the mine during reclamation.” While reviewing the spill contingency plan section 2.2.10 I am unable to see where it states that if a spill is beside a building or partially covered by a building it would be not remediated, it also states that heavy machinery may be used and is not a requirement. Due to the uncertainty of how long the spill was leaking for, the large quantity of oil inside the leaking containment and the need for repair I am requesting the licensee submit a spill report and the follow up report to ensure this spill and leaking containment is properly managed.

##### 4.1 Agnico Response

The response provided by Agnico on August 30th was not complete in explaining the different activities that occur at this location. Agnico would like to clarify the areas of concern identified in Photo 7 of the original CIRNAC Inspection Report (dated June 20, 2022) at the generator oil storage location. The areas of concern are listed below, along with an explanation of the source.

1. Oil tray beneath the building – The tray beneath the building structure is unrelated to any spills and is not placed there for leaks. It is placed there for storage and is used under the Kubota’s during the winter season. Agnico can confirm the containment is not leaking and the liner has not been compromised inside of the building.
2. Oil residue on timbers – These residues are from a spill that occurred on Jan 21, 2020. The source of the spill is an oil tote transfer pump hose that sprayed approximately 5L of oil on the wall, which then leaked out to the ground. As described in the August 30<sup>th</sup> response, the volume spilled did not meet the requirement to submit a spill report to the authorities as per Schedule B of the *Spill Contingency Planning and Reporting Regulations* (and shown on the Immediately Reportable Spills Table in the front section of Hope Bay’s Spill Contingency Plan). A spill report has not been prepared.
3. Oil residue on gravel – These are recent residues that originate from the transferring of oily totes in and out of the oil room. Agnico will clean up the stained gravel and replace with new gravel. Since the inspection, the liner has been cleaned and new grating installed to better inspect the liner on a regular basis. The oil totes are now lifted onto a platform and a spill tray placed underneath the hose connection point to catch spills before going into the liner. See photos 1-4 below. The volume spilled did not meet the requirement to submit a spill report to the authorities as per Schedule B of the *Spill Contingency Planning and Reporting Regulations* (and shown on the Immediately Reportable Spills Table in the front section of Hope Bay’s Spill Contingency Plan). Nonetheless, at the request of CIRNAC, a spill report has been prepared and submitted. A follow up report will also be provided.





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Photo 1 and 2 – Oil containment inside building cleaned



Photo 3 and 4 – Grating and spill tray installed



## 5. COMMENT #5

The inspector is requesting the licensee provide reasoning why it will take more than 6 months to install flow meters and is reminded that it is a requirement of the licence to install and maintain a flow meter.

### 5.1 Agnico Response

Flow meters have been installed at both the Doris (Photo 1 and 2) and Windy (Photo 3) pumphouses.



Photo 1 Doris Flow Meter



**Photo 2 Doris Flow Meter**





**Photo 3 Windy Flow Meter**

## **6. COMMENT #6**

In "Photo 2: Totes at the powerhouse placed on a secondary containment", can you please provide the specifications for the secondary containment, secondary containment must contain 110%.

### **6.1 Agnico Response**



Agnico acknowledges that the secondary containment at the powerhouse does not meet the minimum requirement of 110% storage volume. Agnico will order appropriately sized spill containment for these totes immediately.

Should you have any questions please feel free to contact me at [nancy.harvey@agnicoeagle.com](mailto:nancy.harvey@agnicoeagle.com)

Sincerely,

**Nancy Duquet Harvey**  
**Environmental Superintendent - Agnico Eagle Mines Limited - Hope Bay Mine**

Cc:  
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Jeremy Fraser  
Kelli Gillard