



AGNICO EAGLE

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT: OCTOBER 2017

WATER LICENCE 2BB-MEL1424

**SUBMITTED TO THE
NUNAVUT WATER BOARD**

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A. This monthly report is delivered under water license 2BB-MEL1424, PART J, Item 13.

1. *The Licensee shall maintain Monitoring Stations at the following locations:*

Table 1: Monitoring stations

Monitoring Program Station Number	Description	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (Volume cubic metres)
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume cubic metres)
MEL-5	Point of discharge for the Bermed Fuel Containment Facilities	Active
MEL-6	Effluent from the Landfarm Treatment Facility prior to release	New
MEL-7	Final Effluent Discharge from the BIODISK treatment system	Active
MEL-8	Point of discharge or runoff from the Non-Hazardous Waste landfill	(New) Active

2. *The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes from all sources.*

Table 2: Water quantities utilized

MEL-1 ¹	Daily average (m ³)
Camp	31.50
Construction	0.00
MEL-2 (A8) ²	
Underground	2.55
Drilling	15.35
Not MEL-1 or MEL-2	
Drilling	0
October Daily Average	49.40
Total October	1,532
Total 2017	15,620

3. *The Licensee shall measure and record the volume of all soil from all locations entering the Landfarm Treatment Facility.*

In October 2017, less than 1 m³ of contaminated soil was brought to the landfarm.

¹ MEL-1: 541943E, 6989174N

² MEL-2 (A8): 540076E, 6987731N

4. *The Licensee shall assess and record the concentration of F1 – F4 fractions in petroleum hydrocarbon contaminated soil, according to the CCME Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil that is entering the Land Treatment Unit from all sources and excavations.*

No soil samples were taken in October 2017 from the landfarm.

5. *The Licensee shall provide the GPS coordinates (in decimal degrees) of all locations where wastes associated with camp operations and exploration activities are deposited.*

Table 3: GPS Coordinates of the landfill and landfarm

	Landfill	Landfarm
Latitude	63.03063	63.02386
Longitude	-92.22089	-92.18639

6. *Licensee shall sample at Monitoring Program Station MEL-7, monthly during wastewater effluent discharge. Samples shall be analyzed for the parameters listed under Part D Item 11:*

- pH*
- Biochemical Oxygen Demand – BOD5*
- Total Suspended Solids (TSS)*
- Fecal Coliforms*
- Oil and Grease (and visual)*

Four (4) samples were collected during the month. The summary of the results is provided in table 4 below.

An exceedance of the fecal coliforms was detected in the sample, collected on October 30, 2017 (1,100 CFU/100 ml versus 1,000 CFU/100 ml limit set in the license), this was reported as a spill to the relevant authorities. An investigation is underway to determine the cause of the incident. Upon completion, a follow up report will be issued.

Table 4: Effluent testing results

Station: STP-FINAL (MEL-7)		October					
	Limits	10/2/2017	10/10/2017	10/16/2017	10/19/2017	10/24/2017	10/30/2017
Biochemical Oxygen Demand	80 mg/L	14	38	17	43	28	6
pH	6.0 - 9.5	7.65	7.45	7.57	7.44	7.88	7.61
Total Suspended Solids	100 mg/L	7	5	2	11	11	4
Atypical		>2,000,000	26,000	-	190,000	-	29,000
Fecal Coliforms (CFU/100mL)	1000	>60	14	-	230	-	1,100
Heterotrophic Plate Count (AAHB) (CFU/100mL)		>300,000	27,700	-	150,000	-	>30,000
Total Coliforms (CFU/100mL)		-	22,000	-	290,000	-	20,000

7. *The Licensee shall, prior to the release of effluent from the Bermed Fuel Containment Facilities at Monitoring Program Station MEL-5 and the Landfarm Treatment Facility at Monitoring Program Station MEL-6 for the purpose of demonstrating compliance, sample for the parameters listed under Part D item 15.*

In October, no water was released from the Bermed Fuel Containment Facilities (Monitoring station MEL-5) and the Landfarm Treatment Facility (Monitoring Station MEL-6).

- 8. *The Licensee shall obtain representative samples of the water column below any ice where required under part F, Items 5 and 6. Monitoring shall include but not limited to the following:***

Total Suspended Solids

pH

Electrical Conductivity, and

Total trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and Trace Arsenic and Mercury.

No on-ice drilling was conducted during the month of October.

- 9. *Modify the monthly monitoring reports, starting April 2016, to include, at a minimum, waste water treatment options; and modifications of the freshet action plan.***

In October, domestic wastewater from the exploration camp was treated using the BIODISK treatment system; underground mine development water was stored for subsequent treatment.