



# **AGNICO EAGLE**

**MELIADINE GOLD PROJECT**

**ENVIRONMENTAL REPORT: AUGUST 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 Bormed 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 <sup>1</sup>	Daily average (m <sup>3</sup> )
Camp	30.11
Construction	0.00
MEL-2 (A8) <sup>2</sup>	
Underground	3.30
Drilling	0.00
Not MEL-1 or MEL-2	
Drilling	0
August Daily Average	33.41
Total August	1,036
Total 2017	12,949

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

In August 2017, a total of 211 m<sup>3</sup> of contaminated soil was brought to the landfarm.

<sup>1</sup> MEL-1: 541943E, 6989174N

<sup>2</sup> 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 August 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
<b>Latitude</b>	63.03063	63.02386
<b>Longitude</b>	-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; there were no exceedances of the license limits. The summary of the results is provided in table 4 below.

Table 4: Effluent testing results

Station: STP-FINAL (MEL-7)		August			
DATE	Limits	8/7/2017	8/14/2017	8/21/2017	8/28/2017
Biochemical Oxygen Demand	80 mg/L	58	10	20	38
pH	6.0 - 9.5	6.72	7.01	7.42	7.38
Total Suspended Solids	100 mg/L	6	2	4	<10
Oil & Grease-(IR)	5 mg/L	0.9	1.4	1.3	0.6
Total Chemical Oxygen Demand (COD)		70	59	57	62
Atypical		38	5800	100	800
Fecal Coliforms (CFU/100mL)	1000 CFU/100 ml	<2	<2	<2	<2
Heterotrophic Plate Count (AAHB) (CFU/100mL)		35,000	14,000	9,000	8,600
Total Coliforms (CFU/100mL)		5	400	200	<100

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 August, 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 August. Sampling will resume next winter.

- 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.**

1. Waste water treatment options:

In August, 1034 m<sup>3</sup> was pumped from the underground mine to the P-cells.

Water is not transferred from the P-Cells and is evaporated; the evaporators started operation in June.