



Meliadine Gold Project
NWB 2BB-MEL1424
March 2018 Monthly Report

Prepared for:
Nunavut Water Board

Prepared by:
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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 Station	Description	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (Volume m ³)
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume m ³)
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	Camp	m ³ /day	32.31
	Pump Shack	m ³ /day	1.42
	Construction	m ³ /day	0.00
MEL-2 (A8) ²	Underground	m ³ /day	3.83
	Drilling	m ³ /day	2.58
Not MEL-1 or MEL-2	Drilling	m ³ /day	19.13
March Daily Average		m ³ /day	59.26
Total March		m ³	1,837
Total 2018		m ³	4,052

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

In March 2018, no material entered the type B landfarm, all material was brought to Type A landfarm instead.

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 March 2018 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)

The STP upgrade and maintenance program was initiated in November 2017. The effluent, treated at the exploration STP and was trucked to and discharged into CP1. Agnico continued to monitor the quality of the effluent; 3 samples were collected during the month. The summary of the results is provided in Table 4 below.

Table 4: Effluent testing results at STP-FINAL (MEL-7) sampling station

Parameters	Limits	3/5/2018	3/12/2018	3/19/2018
Biochemical Oxygen Demand, mg/L	80 mg/L	6	6	7
pH	6.0 - 9.5	6.73	7.31	7.07
Total Suspended Solids, mg/L	100 mg/L	2	3	3
Oil and Grease, mg/L	5 mg/L	3.2	2.1	2.5
Atypical	-	3,400	290	3,600
Fecal Coliforms (CFU/100mL)	1000	<2	<2	<2
Heterotrophic Plate Count (AAHB) (CFU/100mL)	-	2,310	546	2,300
Total Coliforms (CFU/100mL)	-	<10	<10	<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 March, 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.

On-ice drilling was conducted in March 2018; prior to drilling, the samples were collected and sent for analysis. After completion of the drilling, expected in April, another set of samples will be collected and analyzed, and the complete set of analyses results will be presented in subsequent monthly reports.

- 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 March, underground mine development water was stored for future treatment. Domestic wastewater from the exploration camp was treated using the BIODISK/BIONEST treatment system; the discharge of treated water into the environment was suspended on November 15 to allow for the upgrade and maintenance of the system. Water, treated at the exploration STP was trucked to and discharged into CP1.