



Meliadine Gold Project  
NWB 2BB-MEL1424  
January 2019 Monthly Report

**Prepared for:**  
Nunavut Water Board

**Prepared by:**  
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February 12th, 2019

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 <sup>3</sup> )
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume m <sup>3</sup> )
MEL-5	Point of discharge for the Bermed Fuel Containment Facilities	Inactive
MEL-6	Effluent from the Landfarm Treatment Facility prior to release	Active
MEL-7	Final Effluent Discharge from the BIODISK treatment system	Active (no direct discharge)
MEL-8	Point of discharge or runoff from the Non-Hazardous Waste landfill	Inactive

**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 (average)

MEL-1 <sup>1</sup>	Camp	m <sup>3</sup> /day	22.66
	Pump Shack	m <sup>3</sup> /day	1.52
	Construction	m <sup>3</sup> /day	0.00
MEL-2 (A8) <sup>2</sup>	Underground	m <sup>3</sup> /day	0.00
	Drilling	m <sup>3</sup> /day	0.00
Not MEL-1 or MEL-2	Drilling	m <sup>3</sup> /day	17.52
Daily Average		m <sup>3</sup> /day	41.69
Total January 2019		m <sup>3</sup>	1,292
Total 2019		m <sup>3</sup>	1,292

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

In January 2019, no material was deposited in the Type B landfarm. Any new contaminated soil generated will be deposited in the Landfarm approved in the Type A Water License.

<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 contaminated soil was deposited in January, 2019 therefore no samples were taken.

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.*

No more waste from camp operations and exploration is deposited in locations related to Licence 2BB-MEL1424

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 is trucked to and discharged into CP1. Therefore, discharge limits don't apply to MEL-7 results. Agnico continued to monitor the quality of the effluent; 4 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, January 2019

			Sample Date			
			1/9/2019	1/16/2019	1/21/2019	1/28/2019
Sample Name			MEL-7	MEL-7	MEL-7	MEL-7
Parameters	MEL-7 LIMITS	Units				
Biochemical Oxygen Demand, 5 Day	80	mg/L	-	14	28	19
Oil & Grease, Total Rec	5	mg/L	-	2.3	2.3	1.1
pH	6.0 - 9.5	pH units	-	7.66	7.45	7.49
Total Suspended Solids	100	mg/L	-	12	21	12
Atypical colonies	-	CFU/100mL	2200	NA	480000	>2000000
Fecal Coliforms	1000	CFU/100mL	90	11000	400	20000
Heterotrophic bacteria, total	-	CFU/100mL	15400	>30000	81000	>300000
Total Coliform	-	CFU/100mL	4900	>80000	<10000	***

- 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 January, no water was discharged from the Fuel Containment Facilities (Monitoring station MEL-5) or 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.***

There was no drilling being conducted on ice in January thus no samples were taken.

- 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.**

Since Nov, 2017 all treated sewage from the Exploration Camp STP is trucked and deposited in CP1. Previously the effluent from this system was discharged directly into Meliadine Lake. As a modification and alternate wastewater treatment option the effluent from this facility is now monitored and trucked to CP1. The Freshet Action Plan has been revised and submitted with the Annual Report in accordance with the Water License.