AGNICO EAGLE
MELIADINE

Meliadine Gold Project
NWB 2BB-MEL1424
May 2021 Monthly Report

Prepared for:
Nunavut Water Board

Prepared by:
Agnico Eagle Mines Limited – Meliadine Division

July 2021

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	Inactive
MEL-6	Effluent from the Landfarm Treatment Facility prior to release	Inactive
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[1]	Camp	m^3/day	0.86
	Pump Shack	m^3/day	0.00
	Construction	m^3/day	0.00
MEL-2	Drilling	m^3/day	22.52
Daily Average		m^3/day	23.38
Total May 2021		m^3	724.69
Total 2021		m^3	4,995

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

In May 2021 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.

[1] MEL-1: 541943E, 6989174N

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 material was removed in May 2021.

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)

   From November 2017 to April 2019, all treated sewage from the Exploration Camp STP was trucked and deposited in CP1. From April 15th, 2019 to early June 2019, due to inconsistency in the amount of people at the exploration camp resulting in unsteady STP effluent results, AEM decided to transfer all treated water from the exploration STP to the main camp STP for a second treatment before being discharged in CP-1. Since early June 2019, the treated sewage from the exploration camp is deposited in CP-1 as sampling results went back to normal.

   If the Exploration Camp STP operators suspect any upsets in the Exploration Camp STP prior to receiving accredited lab results, the effluent will be placed in the arctic corridor lift station for additional treatment in the main camp sewage treatment plant.

   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 3 below.

   The Biochemical Oxygen Demand, 5 Day for the sample collected on May 17th, 2021 was slightly above the Effluent quality limits as per Part D, Item 11 of the water license 2BB-MEL1424, applicable for discharge to Meliadine Lake. It should be noted that water from the Exploration Camp STP during the month of May 2021 was transferred to the main camp STP for a second treatment before being discharged to CP-1.

Table 3: Effluent testing results at STP-FINAL (MEL-7) sampling station, May 2021

MEL-7	MEL-7 EFLLUENT QUALITY LIMITS	Sample date	5/17/2021	5/24/2021	5/31/2021
		Sample type	N	N	N
Parameter		Unit			
WQ02- Conventional Parameters					
pH	9.5	**pH units**	7.22	7.59	7.47
Specific conductivity		**umhos/cm**	500	860	600
TSS	100	**mg/L**	49	8	9
Volatile TSS		**mg/L**	45	6	7
Total alkalinity, as CaCO3		**mg/L**	94	190	84
WQ04- Nutrients and Chlorophyll a					
Biochemical Oxygen Demand, 5 Day	**80**	**mg/L**	**97**	20	17
Chemical oxygen demand		**mg/L**	290	150	86
Total ammonia		**mg/L**	7.9	42	22
Nitrate		**mg/L**	< 0.10	8.43	8.61
Nitrite		**mg/L**	0.038	0.055	7.72
Nitrate + nitrite		**mg/L**	< 0.10	8.49	16.3
Total Kjeldahl nitrogen		**mg/L**	16	48	24
Total phosphorus		**mg/L**	12	18	7.0
WQ05- General Organics					
Total oil and grease		**mg/L**	14	1.4	< 0.50
WQ13- Coliforms					
Total Coliform		**CFU/100mL**	ND	3700000	60000
Fecal Coliform		**CFU/100mL**	>60000	54000	900
Atypical colonies		**CFU/100mL**	>2000000	2900000	220000
Aerobic heterotrophic bacteria		**CFU/mL**	>300000	>3000000	320000
Escherichia coli		**CFU/100mL**	>60000	54000	900

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 May 2021, no water was discharged from the Fuel Containment Facilities (Monitoring station MEL-5) nor 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 during the winter 2020-2021; samples are collected before, during and after drilling and sent for analysis.

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.***

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