



Meliadine Gold Project
NWB 2AM-MEL1631
April 2020 Monthly Report

Prepared for:

Nunavut Water Board

Prepared by:

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SECTION 1 • BACKGROUND

As required under Part I, Item 10 of Type A Water License 2AM-MEL1631, this report documents the water management and monitoring activities at the mine site and provides a summary of spills/ actions for the month of April 2020.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Table 2.1 details monthly water usage approved under Water License 2AM-MEL1631:

Table 2.1: Summary of Agnico's monthly water usage in April 2020

	Monthly Usage (m ³)
Camp and Mill (MEL-11)	30,345.20
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total April	30,345.20
Year to date 2020	121,685.78

2.2 DEWATERING ACTIVITIES

Dewatering of the Lake H-19 and H-20 started August 17th 2019 and stopped October 5th 2019.

2.3 MELIADINE DISCHARGE

Discharge from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) started July 9th 2019 and stopped October 5th 2019

2.4 MELVIN BAY DISCHARGE

Discharge to sea via the Final Discharge Point (MEL-26) started August 1st 2019 and stopped October 11th 2019.

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM

The 2AM-MEL1631 landfill and landfarm were commissioned in November 2017. No seepage or runoff was observed in April 2020.

2.6 SEWAGE TREATMENT PLANT

In April 2020, 3,385 m³ of treated wastewater was discharged into CP1. The majority of the sludge is disposed of in the Tailings Storage Facility as approved, the sludge can also be utilized as nutrient in the site landfarm or shipped to the south with Agnico Eagle's hazmat if needed.

2.7 CONTAINMENTS

Discharged from the Itivia fuel containment facility (Station Mel-25) occurred during the summer 2019 and approximately 12,062 m³ was discharged through the year 2019.

2.8 MONITORING ANALYTICAL DATA

In April 2020, samples related to the water Licence were taken. See below the analytical results from these monitoring stations. No exceedances occurred in April 2020.

MEL-11	Sample Date	4/5/2020
Parameter	Unit	
Field Measured		
pH	pH units	6.66
Conductivity	uS/cm	110.2
Temperature	°C	6.46
Dissolved oxygen	mg/L	12.54
Dissolved oxygen	%	100.4
Conventional Parameters		
pH	pH units	7.17
Specific conductivity	umhos/cm	120
Hardness, as CaCO ₃ (D)	mg/L	34.2
Hardness, as CaCO ₃ (T)	mg/L	34.9
Total alkalinity, as CaCO ₃	mg/L	25
Total dissolved solids	mg/L	65
Total suspended solids	mg/L	< 1
Total organic carbon	mg/L	3.8
Dissolved organic carbon	mg/L	4.4
Turbidity	NTU	0.2
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	25
Calcium	mg/L	10.6
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	16
Cyanide	mg/L	< 0.0050
Magnesium	mg/L	1.85
Potassium	mg/L	1.32
Sodium	mg/L	7.25
Sulphate	mg/L	6.3
Silica	mg/L	0.69
Cyanide (free)	mg/L	< 0.0010
Cyanide (WAD)	mg/L	< 0.0010
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10

Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	< 0.050
Total Kjeldahl nitrogen	mg/L	0.25
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	0.027
Total Metals		
Aluminum	mg/L	0.0044
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00045
Barium	mg/L	0.0123
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	10.8
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00108
Iron	mg/L	0.025
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.9
Manganese	mg/L	0.0035
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	1.37
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.291
Silver	mg/L	< 0.000020
Sodium	mg/L	7.53
Strontium	mg/L	0.0583
Sulphur	mg/L	< 3
Thallium	mg/L	< 0.000010
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	< 0.00010
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	< 0.00010
Dissolved Metals		
Aluminum	mg/L	< 0.0030

Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00042
Barium	mg/L	0.0122
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00095
Iron	mg/L	0.0099
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	< 0.0010
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.001
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.282
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0576
Sulphur	mg/L	< 3.0
Thallium	mg/L	< 0.000010
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	< 0.00010
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	< 0.00010
Volatile Organics		
Benzene	mg/L	< 0.00020
Ethylbenzene	mg/L	< 0.00020
Toluene	mg/L	< 0.00020
Xylenes	mg/L	< 0.00040
m,p-Xylenes	mg/L	< 0.00040
o-Xylene	mg/L	< 0.00020
F1 (C6-C10)-BTEX	mg/L	< 0.025
F1 (C6-C10)	mg/L	< 0.025
F2 (C10-C16)	mg/L	< 0.1
F3 (C16-C34)	mg/L	< 0.2
F4 (C34-C50)	mg/L	< 0.2
Reached baseline at C50	ug/L	YES

SECTION 3 • MATERIAL MANAGEMENT

3.1 LANDFILL / LANDFARM

The volume of material placed into the landfill is evaluated through periodic surveys. According to the most recent survey done April 7th 2020 the landfill contained approximately 18,661 m³ of material.

In April 2020 no contaminated soil was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 115,869 tonnes of ore were processed through the Mill in April 2020.

3.3 WASTE ROCK STORAGE FACILITY

In April 2020, a total of 38,497 tonnes of waste rock was removed in the mine development process. 28,255 tonnes were used as underground dry rockfill. No waste was stockpiled for progressive closure cover.

3.4 TAILINGS

68,384 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in April 2020. 47,485 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

All spills reported internally (4) are listed in the table 4.1 and were managed according to Agnico's spill contingency plan. Spills were contained and cleaned up, contaminated material was disposed of in an appropriate manner, and the clean-up actions were monitored closely by the Environment Department. No reportable spills occurred in April 2020.

Table 4.1: Summary of Agnico's Spill Reports in April 2020

Date and time of occurrence	If material not listed in dropdown or more details, enter here	Estimated quantity (l)	Exact location of incident	Description of incident	Describe immediate corrective actions
Thursday, April 02, 2020 10:30:00 AM	Hydraulic oil	50.00	North side of maintenance garage yard	Hydraulic hose blew underneath the machine causing an oil spill	Leak was immediately stopped, oil on ground was contained and picked up and disposed of in an empty drum
Saturday, April 04, 2020 12:00:00 PM	Transmission Oil	5.00	KCG Garage Yard	Two workers repaired a transmission on unit # 17-002. During the task, a quantity of oil was not caught by the spill pan.	Spill cleaned up and contaminated material disposed of adequately.

Wednesday, April 08, 2020 6:00:00 AM	Hydraulic oil	75.00	CP1 Snow Dump	Operator was hauling snow and during unloading a hydraulic hose ruptured	Clean up was initiated immediately moving snow to the contaminated snow dump.
Saturday, April 25, 2020 5:00:00 AM	Transmission Oil	80.00	WRSF3	A loader operator was clearing snow on WRSF3, he didn't see a rock on the ground and passed over it, the rock broke the transmission plug and an oil spill occurred	Shut down equipment, use of absorbant pad