AGNICO EAGLE
MELIADINE

Meliadine Gold Project
NWB 2AM-MEL1631
February 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 February 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 February 2020

	Monthly Usage (m^3)
Camp and Mill (MEL-11)	**29,248**
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total January	**29,248**
Year to date 2020	**58,809**

2.2 DEWATERING ACTIVITIES

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

2.4 MELVIN BAY DISCHARGE

Discharge to sea via the Final Discharge Point (MEL-26) started August 1st 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 February 2020.

2.6 SEWAGE TREATMENT PLANT

In February 2020, 3,930 m^3 of treated wastewater was discharged into CP1. 61 m^3 of sludge was removed during the month. 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 and approximately 12,062 m^3 was discharged through the year 2019.

2.8 MONITORING ANALYTICAL DATA

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

MEL-11	Sample Date	2/2/2020
	FIELD_SDG	C033034
Parameter	**Unit**	
Conventional Parameters		
pH	pH units	7.27
Specific conductivity	umhos/cm	100
Hardness, as CaCO3 (D)	mg/L	29
Hardness, as CaCO3 (T)	mg/L	30.6
Total alkalinity, as CaCO3	mg/L	23
Total dissolved solids	mg/L	85
Total suspended solids	mg/L	< 1
Total organic carbon	mg/L	3.5
Dissolved organic carbon	mg/L	3.4
Turbidity	NTU	0.2
Major Ions		
Bicarbonate, as CaCO3	mg/L	23
Calcium	mg/L	8.8
Carbonate, as CaCO3	mg/L	< 1.0
Chloride	mg/L	15
Cyanide	mg/L	< 0.0050
Cyanide WAD	mg/L	< 0.0010
Cyanide (free)	mg/L	0.013
Magnesium	mg/L	1.7
Potassium	mg/L	1.22
Sodium	mg/L	6.66
Sulphate	mg/L	5.8
Silica	mg/L	0.45
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	0.069
Total Kjeldahl nitrogen	mg/L	0.26
Total phosphorus	mg/L	< 0.020

Orthophosphate	mg/L	< 0.010
Total Metals		
Aluminum	mg/L	0.0043
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.0004
Barium	mg/L	0.0107
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	9.5
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00103
Iron	mg/L	0.026
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.66
Manganese	mg/L	0.0055
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	1.13
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.242
Silver	mg/L	< 0.000020
Sodium	mg/L	6.44
Strontium	mg/L	0.05
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	0.00038
Barium	mg/L	0.0106
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	0.00087
Iron	mg/L	0.0093
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	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.213
Silver	mg/L	< 0.000020
Strontium	mg/L	0.049
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	mg/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 November 12th, the landfill contained approximately 16,340 m³ of material.

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

3.2 ORE

Approximately 98,096 tonnes of ore were processed through the Mill in February 2020. 27,732 tonnes of ore were stockpiled.

3.3 WASTE ROCK STORAGE FACILITY

In February 2020, a total of 50,375 tonnes of waste rock was removed in the mine development process. 4,474 tonnes were used as underground dry rockfill. No waste was stockpiled for progressive closure cover.

3.4 TAILINGS

58,885 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in February 2020. 39,211 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

All spills reported internally (10) 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. One reportable spills occurred in February 2020.

Table 4.1: Summary of Agnico's Spill Reports in February 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
Friday, February 07, 2020 1:30:00 AM	Diesel	2.00	R.O. plant	Employee lost his footing as he was refueling a allman heater at the R.O. plant. The nozzle came out of the tank spout of the allman and a few	Contaminated snow was scraped and disposed of adequately.

				liters spilled before he released the trigger.	
Saturday, February 08, 2020 8:30:00 PM	Hydraulic Oil	38.46	SP4	During drilling operation, a hydraulic hose busted and hydraulic oil spilled out of the drill shack.	Spill contained, cleaned up and material disposed of adequately.
Monday, February 10, 2020 3:00:00 AM	Engine oil	1.00	TSF sub cell 1	Breeder on tower light froze up and some engine oil spilled out of dipstick after pressure built up in engine. Extreme cold weather conditions.	Spill cleaned up, material disposed of adequately.
Monday, February 10, 2020 4:00:00 PM	Antifreeze	20.00	SP4	Zoom boom had just been repaired, worker was on his way to the work area when the bottom hose fell off spilling antifreeze on the road and pad until he came to a stop.	Engine stopped and spill pads placed under equipment where fluid was still dripping. Material disposed of adequately.
Thursday, February 13, 2020 1:00:00 PM	Coolant	1.00	Rankin Inlet	PCK39 was in Rankin Inlet and a small coolant leak was noticed under the truck. The spill was cleaned up and the problem was repaired immediately by the Sarliaq maintenance team in town.	Spill contained and material disposed of adequately.
Thursday, February 13, 2020 3:30:00 PM	Hydraulic Oil	15.00	Portal 1	After having parked the tractor, operator went in the dome. Just when he was going outside the dome he saw that hydraulic oil was leaking out tractor 25.	Spill kit was used, material was disposed of adequately.
Sunday, February 16, 2020 6:00:00 AM	Hydraulic Oil	20.00	OP2, HG O/S pile	Hydraulic hose failure on Inukshuk's portable crusher.	Crusher was shut down. Spill was cleaned up and contaminated material was disposed of adequately.

Thursday, February 20, 2020 12:00:00 AM	Brine	300.00	Saline Water Treatment Plant	There is crack in the floor of the SWTP. During normal operations, some process water can accumulate on the floor and migrate towards the crack. It is suspected that the water eventually drains through the crack reaching the gravel pad underneath. The water will eventually drain towards CP5, therefore no contamination will leave the site footprint and no water bodies are impacted.	A consultant inspected the concrete flooring. Holes were drilled through the floor to investigate the extent of the cavity beneath the floor. A weekly inspection of the floor integrity including pictures to document key areas has been implemented as a corrective measure.
Friday, February 28, 2020 5:30:00 AM	Hydraulic Oil	75.00	SP4 parking	Employee was operating the Haul Truck 1560 at SP4 when a hydraulic fitting loosened, spilling hydraulic Oil	Mechanics applied absorbent layers to recover the spilled hydraulic oil, a spill pan was installed under the ruptured seal. The contaminated material has been disposed of adequately.
Sunday, March 01, 2020 1:00:00 AM	Hydraulic Oil	20.00	Up the portal 1 to the ore pad, truck park ready to dump	The truck driver was ready to dump his load and saw a little bit of oil on the ground, he immediately used his spill kit (pads) to contain the leak, when he stood by at remuck one the truck left a little puddle of oil, we also used spill kit to contain that leak.	Spill was contained and material was disposed of adequately.