AGNICO EAGLE
MELIADINE

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

	Monthly Usage (m^3)
Camp and Mill (MEL-11)	**29,116**
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total January	**29,116**
Year to date 2020	**29,116**

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 January 2020.

2.6 SEWAGE TREATMENT PLANT

In January 2020, 3,939m^3 of treated wastewater was discharged into CP 1. 52m^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 January 2020, samples related to the water Licence were taken. See below the analytical results from these monitoring stations. No exceedances occurred in January 2020.

MEL-11	Sample Date	1/6/2020
Parameter	**Unit**	
Field Measured		
pH	pH units	7.13
Conductivity	uS/cm	102.5
Temperature	°C	6.2
Dissolved oxygen	mg/L	11.05
Dissolved oxygen	%	89.6
Conventional Parameters		
pH	pH units	6.81
Specific conductivity	umhos/cm	100
Hardness, as CaCO3 (D)	mg/L	31.5
Hardness, as CaCO3 (T)	mg/L	29.7
Total alkalinity, as CaCO3	mg/L	22
Total Dissolved Solids	mg/L	65
Total suspended solids	mg/L	1
Total organic carbon	mg/L	3.5
Dissolved organic carbon	mg/L	3.5
Turbidity	NTU	0.2
Major Ions		
Bicarbonate, as CaCO3	mg/L	22
Calcium	mg/L	9.91
Carbonate, as CaCO3	mg/L	< 1.0
Chloride	mg/L	14
Cyanide Total	mg/L	< 0.0050
Cyanide Free	mg/L	< 0.0010
Cyanide WAD	mg/L	< 0.0010
Magnesium	mg/L	1.63
Potassium	mg/L	1.16
Sodium	mg/L	6.13

Sulphate	mg/L	5.2
Silica	mg/L	0.43
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	0.088
Total Kjeldahl nitrogen	mg/L	0.27
Total phosphorus	mg/L	0.022
Orthophosphate	mg/L	< 0.010
Total Metals		
Aluminum	mg/L	0.0052
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00039
Barium	mg/L	0.0102
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	9.33
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.0009
Iron	mg/L	0.025
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.56
Manganese	mg/L	0.0057
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	1.04
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.228
Silver	mg/L	< 0.000020
Sodium	mg/L	6
Strontium	mg/L	0.0522
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	0.01
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	0.0106
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	0.226
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0505
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 January 2020 approximately 3.5m³ of contaminated soil was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 92,871 tonnes of ore were processed through the Mill in January 2020. 47,992 tonnes of ore were stockpiled.

3.3 WASTE ROCK STORAGE FACILITY

In January 2020, a total of 39,167 tonnes of waste rock was removed in the mine development process. 2,264 tonnes were used as underground dry rockfill. No waste was stockpiled for progressive closure cover.

3.4 TAILINGS

56,237 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in January 2020. 36,634 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

All spills reported internally (13) 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.

Two reportable spills occurred in January 2020.

Table 4.1: Summary of Agnico's Spill Reports in January 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
Wednesday, January 01, 2020 5:00:00 PM	Motor Oil	3.00	E&I Dome	Training Department's towerlight was brought in the E&I dome to defrost. As it thawed, a seal broke on the motor and the motor oil leaked on the floor.	Mechanical department was advised immediately when the spill was noticed. They arrived on site, performed an inspection of the motor and plugged the hole on the motor. The towerlight was towed to the equipment downline and the spill was cleaned up and brought to the landfarm.
Wednesday, January 08, 2020 2:30:00 PM	Fuel	2.00	fuel farm portal 1	The operator was fueling his grader and the fuel gun did not stopped when the tank was full	Use diaper to contain the spill and shovel the contaminated snow in a hazmat bag
Thursday, January 09, 2020 1:05:00 AM	Used oil	1.00	Hazmat seacan to MSB door 5	Remi was putting away a full used oil tote inside the hazmat seacan with 65LOM03. When he was backing out of the seacan the fork hit the tote and busted the plastic. We had to control the leak, bring the tote inside MSB and then pump the used oil inside another empty tote. Approximately 1L of oil spilled from the hazmat seacan to MSB #5.	We cleaned up the spill (shoveled up the oil & snow by hand) and disposed of material adequately.
Thursday, January 09, 2020 9:00:00 PM	Engine oil	1.00	Parking outside MSB #5	Operator parked 65TRA15 in the MSB parking lot (in front of door #5) and left it running. There was an engine oil leak, so it dripped on the floor until we went to get it to bring it inside	As soon as we noticed the leak, we put some absorbent pads on it. Snow that was contaminated was shoveled and disposed of material adequately.

				the maintenance shop.	
Friday, January 10, 2020 8:30:00 AM	Hydraulic oil	15.38	TSF sub cell 1	Busted hydraulic hose on packer during operation. Some oil spilled on compacted tailings.	Supervisor was notified. Equipment shut down. Maintenance tech was called over and hose was fixed. Final cleanup was done on the 12th when excavator was available, and material was disposed of adequately.
Sunday, January 12, 2020 3:30:00 PM	Diesel	1 m3	Gas boy behind the mill	While fueling the scoop the operator over filled the tank. The fueling area is inside a secondary containment area.	Spill pads were used and disposed of adequately.
Tuesday, January 14, 2020 8:00:00 AM	Hydraulic oil	190.00	West Exhaust raise	Crane operator was warming up the crane, slowly working all hydraulic components. A hydraulic hose busted. Extremely cold conditions.	The crane operator shut down the engine, placed absorbent spill pads and contacted the Maintenance Department to provide further assistance. Comprehensive cleanup was delayed until the crane could be removed. Once the crane was removed, the Energy and Infrastructure department completed the cleanup, using an excavator bucket to break the ice and collect the contaminated snow. Spill pads were disposed of as hazmat and contaminated snow was transported to the landfarm.
Tuesday, January 14, 2020 10:30:00 AM	Hydraulic oil	20.00	SP4 Waste Rock Pile	The operator went to lift the truck box and a hydraulic hose broke.	Engine was stopped and spill pads were placed on the affected area. The spill pads were

					placed in an oily solids quatrex bag at the KCG shop.
Thursday, January 16, 2020 12:00:00 PM	Metabisulfite	0.50	Roller off reagent trash	The reagent operator was putting cleaned metabisulfite bags into the roll-off bin. An uncleaned bag was in the pile. The wind blew this bag and its contents out onto the ground where a trail of yellow powder was found.	A skid steer was used to transport the contaminated snow to the mill where it was put into the process circuit.
Friday, January 17, 2020 9:30:00 AM	Fuel	5.00	Construction Office Parking	The hose connecting the fuel filter broke and caused a leak.	The engine was shut down and spill pads were used to collect the fuel. Material disposed of adequately.
Friday, January 24, 2020 12:30:00 AM	Oil	15.00	MSB PARKING AREA	Bac04 was parked and idling, mechanic failure caused oil to spill out of Backhoe.	Spill pads deployed to soak up residual oil and pop-up pool was placed to catch any further leak, material disposed of adequately.
Friday, January 24, 2020 9:30:00 AM	Quicklime liquid	50.00	Outside of North end Process Plant.	Hole on the discharge line on Lime pump inside the Mill was leaking and Lime slurry was spraying on inside wall of Plant. The buildup of Lime found the crack between the cement berm and the outside wall and started leaking outside of the Plant.	Leak was stopped and repaired. Lime spill is being picked up with a Skid Steer and will be disposed of inside the Plant at a sump.
Friday, January 31, 2020 1:30:00 PM	Hydraulic Oil	90.00	OP1	There was a hydraulic oil spill at op1 on February 1/2020 at 12:30pm from the Hyster 65CLD02 the quantity of the spill was 90 liters of hydraulic oil.	The spill was cleaned up during night shift under supervisor and all the contaminated soil was placed in the land farm after Hyster was moved by the Maintenance department.