



MEADOWBANK COMPLEX

## **Monitoring Program Summary Report**

**March 2023**

Type A Water License 2AM-MEA1530

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## **SECTION 1 • BACKGROUND**

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On May 13, 2020, Agnico Eagle received the minister's approval for the Water License 2AM-MEA1530 Amendment No.4. This amendment was required to authorize changes to the previously approved uses of water and deposit of wastes needed to reflect the expansion of the Whale Tail Mine.

As required under Part I, Item 21 of Type A Water License 2AM-MEA1530 (Amendment No.4), this report documents the water management and monitoring activities at the mine site for the month. This includes water usage, Vault Attenuation Pond and Phaser Attenuation Pond discharge and water quality, East Dike Seepage discharge water quality, RSF Seepage, Central Dike Seepage, Assay Road Seepage, sewage treatment plant discharge water quality (which is directed to the onsite storm water management pond) and an update to the In-Pit disposal.

In addition, a summary of spills/actions for the month is reported.

## SECTION 2 • WATER MANAGEMENT

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### 2.1 WATER USAGE

Fresh water usage for the month is summarized in Table 2.1 below.

**Table 2.1: Freshwater Usage (m<sup>3</sup>)**

Water Location	Source Lake	Jan	Feb	March	Total
Camp	Third Portage Lake	3,288	2,944	2,980	9,212
Mill (freshwater tank)	Third Portage Lake	50,174	55,874	62,407	168,455
Emulsion plant	Unnamed Lake	0	0	0	0
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>53,462</b>	<b>58,818</b>	<b>65,387</b>	<b>177,667</b>
<b>Ore Water (m<sup>3</sup>)</b>	Ore	5,853	5,146	5,195	16,194
<b>Reclaim Water Usage (m<sup>3</sup>)</b>	Tailings Pond	294,828	250,824	285,244	830,896

### 2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In March, no water was pumped back to the North Cell TSF from the ST-16 sump. No sampling was completed at WEP1 (Station ST-30) and WEP2 (Station ST-31) during the month as they were frozen.

Agnico Eagle completed inspections at the Portage and Vault RSFs, no non-conformities were found during the month.

### 2.3 CENTRAL DIKE SEEPAGE

In March, 13,920 m<sup>3</sup> of water was pumped from ST-S-5 sump to Portage Pits.

Sampling was conducted minimally on a monthly basis at ST-S-5 as per the requirements of the NWB water license.

Visual inspections are completed monthly, by the Environment Department, as well as daily monitoring of piezometric values.

### 2.4 ASSAY ROAD SEEPAGE

In March, no water was pumped from the mill trench back to the mill due to frozen conditions. Agnico Eagle completed inspections and no non-conformities were found during the month.

### 2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL

The landfill was inspected weekly, and no seepage or runoff was observed.

## 2.6 SEWAGE TREATMENT PLANT

One (1) effluent wastewater sample was collected at the onsite sewage treatment plant (STP) in March.

The Seprotech STP results are shown in Table 2.6.1 below; the LJ-Mix STP results are shown in Table 2.6.2. The effluent from the STP is discharged to the Stormwater Management pond.

In March, no water was pumped from the Stormwater Management pond to Portage Pits.

**Table 2.6.1: Seprotech Effluent Results**

Parameters	Units	March 6, 2023
Unionized Ammonia (NH <sub>3</sub> )	mg N/L	0.036
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	20
Total Kjeldahl Nitrogen	mg N/L	23
BOD-5	mg/L	8
COD	mg/L	52
Total Suspended Solids	mg/L	10
Nitrate	mg N/L	14.7
Nitrite	mg N/L	0.390
pH*	Units	6.60
Fecal Coliform	UFC/100 mL	10
Total Coliform	UFC/100 mL	2500

\*Parameter measured by STP operators

**Table 2.6.2: LJ-Mix Effluent Results**

Parameters	Units	March 6, 2023
Unionized Ammonia (NH <sub>3</sub> )	mg N/L	0.072
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	25
Total Kjeldahl Nitrogen	mg N/L	30
BOD-5	mg/L	10
COD	mg/L	63
Total Suspended Solids	mg/L	18
Nitrate	mg N/L	12.8
Nitrite	mg N/L	0.260
pH*	Units	6.80
Fecal Coliform	UFC/100 mL	2000
Total Coliform	UFC/100 mL	21000

\*Parameter measured by STP operators

## 2.7 VAULT ATTENUATION POND EFFLUENT

No discharge has occurred from the Vault Attenuation Pond since October 9, 2017.

## 2.8 PHASER ATTENUATION POND

No water was pumped from the Phaser Attenuation Pond during the month.

No water was transferred from BB Phaser Pit sumps to the Phaser Attenuation Pond during the month.

## 2.9 EAST DIKE SEEPAGE EFFLUENT

Discharge to Second Portage Lake occurred from March 1<sup>st</sup> to March 31<sup>st</sup>, a total of 7,466 m<sup>3</sup> was discharged.

Four (4) weekly effluent samples were collected at ST-8 in March 2023. The TSS results did not exceed the maximum allowable grab sample concentration (30 mg/L) or the maximum monthly average concentration (15 mg/L) permitted by the Water License, Part F, Item 7. The TSS monitoring results for March are provided in Table 2.9.1 below.

**Table 2.9.1 East Dike Seepage Results for TSS**

Parameter	Unit	Sample Date				Monthly Average
		3/6/2023	3/13/2023	3/20/2023	3/27/2023	
Total Suspended Solids	mg/L	3	2	4	3	3

Monthly sampling pursuant to the Water License was also conducted at ST-8 in March. The results are shown in Table 2.9.2 below. There were no exceedances of MDMER criteria.

**Table 2.9.2: March 2023 Monthly Monitoring Results**

Parameter	Unit	Sample Date
		3/6/2023
pH*	-	8.02
Aluminum	mg/L	0.0501
Sulphate	mg/L	6.4
Arsenic	mg/L	0.00248
Copper	mg/L	0.00130
Nickel	mg/L	0.0018
Lead	mg/L	< 0.00020
Zinc	mg/L	< 0.0050
Radium 226	mg/L	< 0.0050
Total Cyanide	mg/L	< 0.00050
Turbidity*	NTU	3.64
Un-Ionized Ammonia	mg/L	< 0.00043

\* Parameter measured by technician

## 2.10 NON-CONTACT WATER

Portage Area East diversion ditch (ST-5) and West diversion ditch (ST-6) were not sampled in March due to the diversion ditches being frozen. Sampling is conducted during open water conditions.

## **2.11 IN-PIT DISPOSAL**

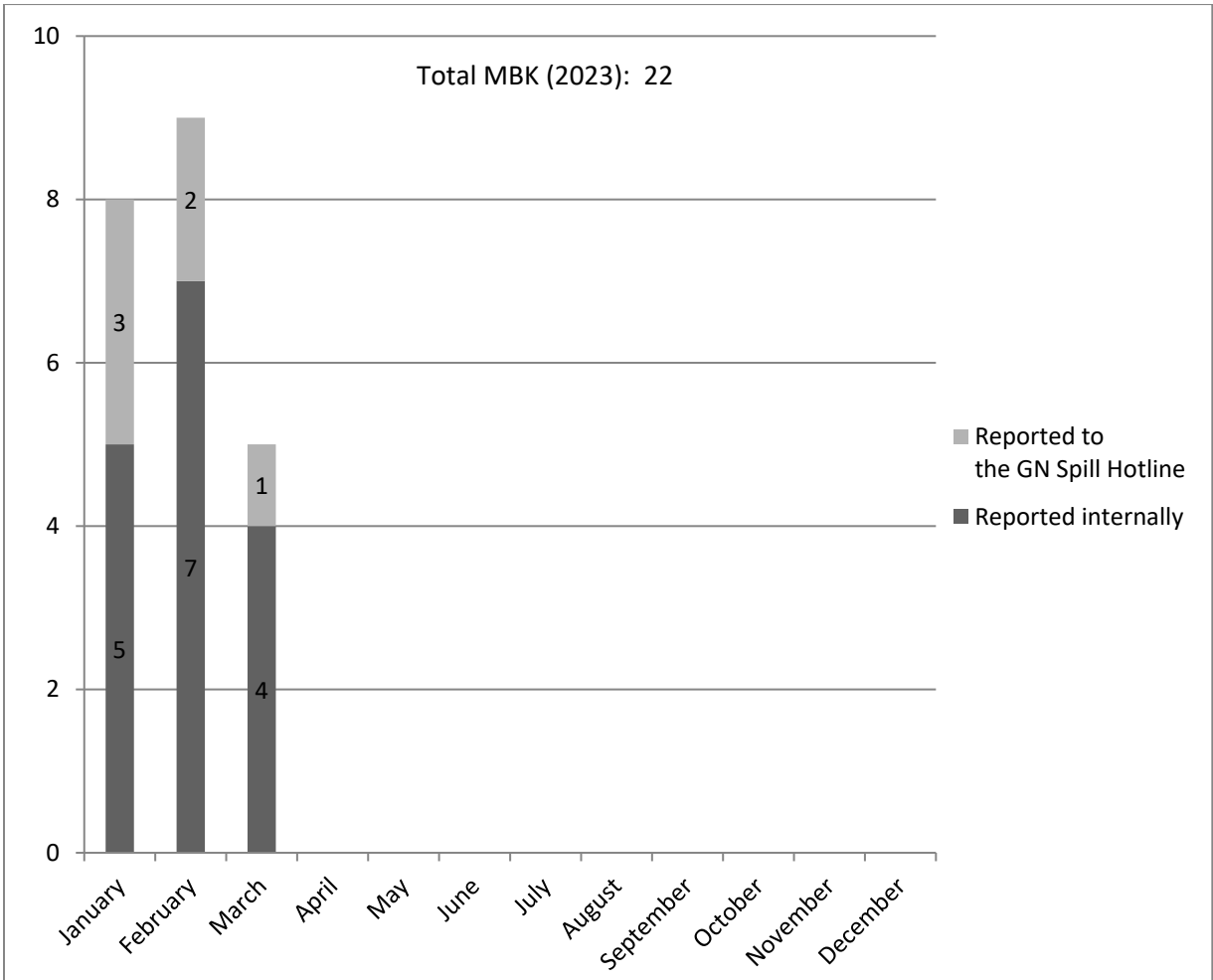
Tailings were disposed of in Portage Pits and reclaim water was taken from Portage Pit E for the month.

**SECTION 3 • SPILL MANAGEMENT**

Figure 3.1 shows reported and non-reported spills for 2023 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for March.

Five (5) spills occurred on site during the month with one (1) reported to regulators. Spills were contained and cleaned, contaminated material was disposed to the appropriate area, and the clean-up actions were monitored closely by the Environment Department. There was no off-site impact to any watercourses.

**Figure 3.1 2023 Reported and Non-Reported Spills**





**Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, March 2023**

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
3/13/2023	Coolant	20	L	AWAR KM 93	Equipment failure	Contaminated material picked up and disposed of appropriately
3/16/2023	Diesel Fuel	30	L	Winter Parking	Equipment failure	Secondary containment was used. Contaminated material picked up and disposed of appropriately
3/22/2023	Power Steering Fluid	2	L	AWAR KM 73	Equipment failure	Contaminated material picked up and disposed of appropriately
3/22/2023	Sewage Water	300	L	Main Camp	Broken joint on piping	Heating equipment was utilized to thaw the frozen sewage in the contaminated area, enabling the vacuuming of the liquid using a sewage truck. About 0.3 cubic meters of contaminated material were transported to the Tailing Storage Facility. Additional remediation efforts will be undertaken during warmer temperatures when the ground has thawed to facilitate the recovery of the contaminated material, considering the spill's location, timing, and nature.
3/26/2023	Coolant	4	L	Site Services Coverall	Equipment failure	Contaminated material picked up and disposed of appropriately