



MEADOWBANK COMPLEX

## **Monitoring Program Summary Report**

**February 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	Total
Camp	Third Portage Lake	3,288	2,944	<b>6,232</b>
Mill (freshwater tank)	Third Portage Lake	50,174	55,874	<b>106,048</b>
Emulsion plant	Unnamed Lake	0	0	<b>0</b>
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>53,462</b>	<b>58,818</b>	<b>112,280</b>
<b>Ore Water (m<sup>3</sup>)</b>	Ore	5,853	5,146	<b>10,999</b>
<b>Reclaim Water Usage (m<sup>3</sup>)</b>	Tailings Pond	294,828	250,824	<b>545,652</b>

### 2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In February, 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 February, 13,564 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 February, 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 February.

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

**Table 2.6.1: Seprotech Effluent Results**

Parameters	Units	February 7 2023
Unionized Ammonia (NH <sub>3</sub> )	mg N/L	0.034
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	14
Total Kjeldahl Nitrogen	mg N/L	16
BOD-5	mg/L	8
COD	mg/L	46
Total Suspended Solids	mg/L	9
Nitrate	mg N/L	16.2
Nitrite	mg N/L	0.516
pH*	Units	6.80
Fecal Coliform	UFC/100 mL	< 10
Total Coliform	UFC/100 mL	1200

\*Parameter measured by STP operators

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

Parameters	Units	February 7, 2023
Unionized Ammonia (NH <sub>3</sub> )	mg N/L	0.057
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	24
Total Kjeldahl Nitrogen	mg N/L	22
BOD-5	mg/L	9
COD	mg/L	53
Total Suspended Solids	mg/L	15
Nitrate	mg N/L	11.7
Nitrite	mg N/L	1.02
pH*	Units	6.80
Fecal Coliform	UFC/100 mL	1700
Total Coliform	UFC/100 mL	13500

\*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 February 1<sup>st</sup> to February 28<sup>th</sup>, a total of 7,548 m<sup>3</sup> was discharged.

Four (4) weekly effluent samples were collected at ST-8 in February 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 February are provided in Table 2.9.1 below.

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

Parameter	Unit	Sample Date				Monthly Average
		2/6/2023	2/13/2023	2/20/2023	2/27/2023	
Total Suspended Solids	mg/L	4	8	5	4	5.25

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

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

Parameter	Unit	Sample Date
		2/6/2023
pH*	-	8.38
Aluminum	mg/L	0.103
Sulphate	mg/L	6.5
Arsenic	mg/L	0.00105
Copper	mg/L	0.00136
Nickel	mg/L	< 0.0010
Lead	mg/L	< 0.00020
Zinc	mg/L	< 0.0050
Radium 226	mg/L	< 0.0050
Total Cyanide	mg/L	0.00065
Turbidity*	NTU	3.43
Un-Ionized Ammonia	mg/L	< 0.00099

\* 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 February due to the diversion ditches being frozen. Sampling is conducted during open water conditions.

## **2.11 IN-PIT DISPOSAL**

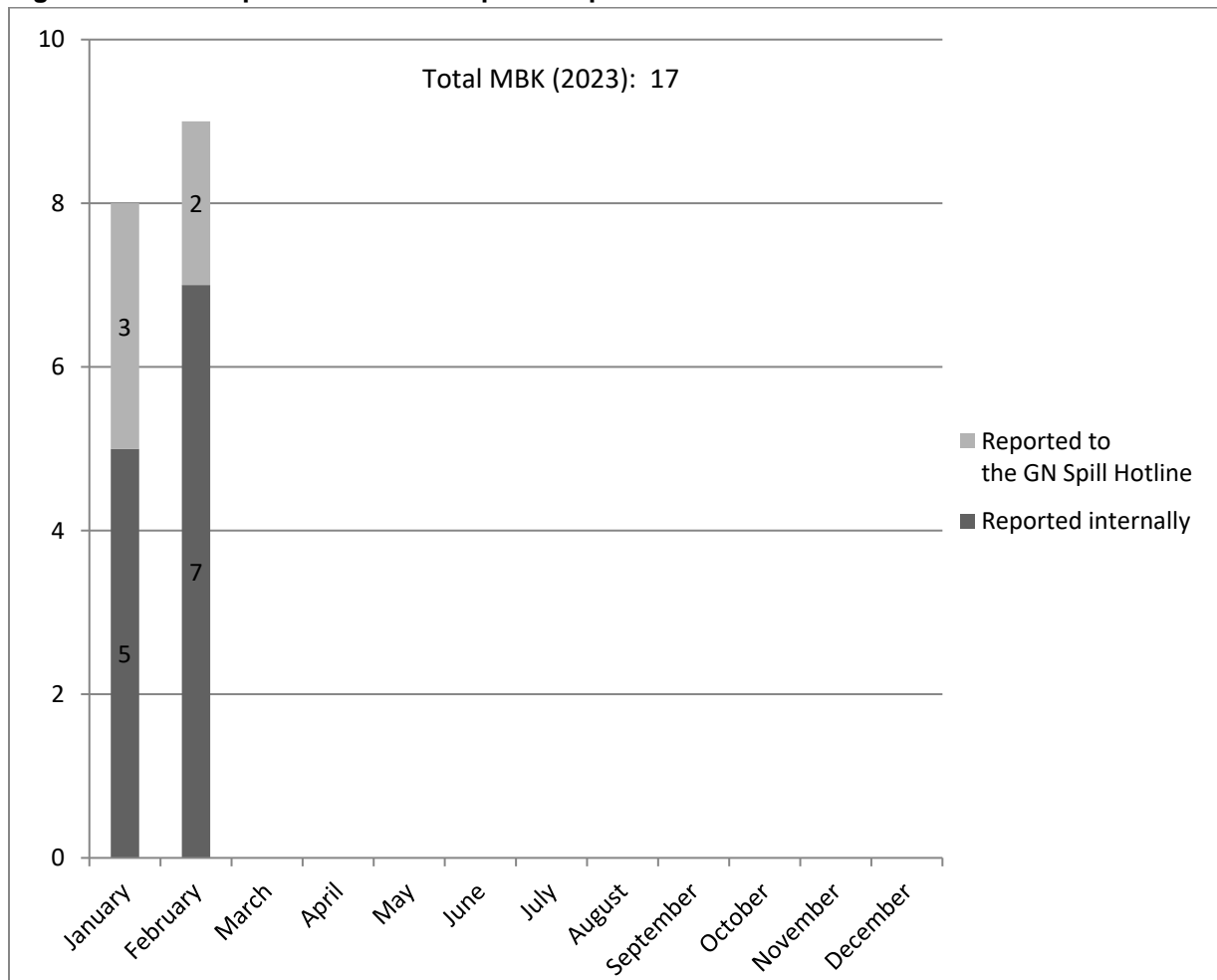
Tailings were disposed of in Portage Pits and reclaim water was taken from Portage Pit E for the month.

### 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 February.

Nine (9) spills occurred on site during the month with two (2) 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.

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





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

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
2/3/2023	Windshield Washer Fluid	2	L	Sana Pad	No spill pan used	Contaminated soil was collected and brought to a yellow bin for disposal.
2/3/2023	Hydraulic Oil	10	L	Site Services Yard	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
2/6/2023	Tailings	9	m3	Pushback Parking	Failure of descaling pump	An excavator was mobilized to excavate the contaminated material. Approximately 92 m <sup>3</sup> of contaminated material was brought to the South cell tailings area.
2/7/2023	Engine oil	10	L	Baker Lake Tank Farm	Equipment malfunction	Environment informed the warehouse of the spill, warehouse then notified Arctic Fuel to clean it up right away
2/8/2023	Ammonium Nitrate	2	Kg	Vault Laydown	Punctured Seacan	Contaminated material picked up and disposed of appropriately
2/8/2023	Engine Oil	5	L	AWAR KM 73	Equipment malfunction	Contaminated material picked up and disposed of appropriately
2/10/2023	Diesel Fuel	150	L	Fuel Farm	Equipment failure	Absorbent material was placed down, and a loader was called to clean the area. Approximately 4 m <sup>3</sup> of contaminated snow/soil material was brought to the Meadowbank Landfarm. Absorbent material was collected brought to the Hazmat area for processing.
2/12/2023	Diesel Fuel	20	L	LHT Winter Parking	Unknown	Contaminated material picked up and disposed of appropriately. Snow was picked up and disposed of in the landfarm.
2/23/2023	Gasoline	15	L	Fuel Farm	Overfilled tank	Contaminated material picked up and disposed of appropriately