



MEADOWBANK DIVISION

## **Monitoring Program Summary Report**

**October 2020**

Type A Water License 2AM-MEA1530

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## **SECTION 1 • BACKGROUND**

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On May 13, 2020, Agnico 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 Pit Project.

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

### 2.1 WATER USAGE

Fresh and reclaim water usage for October is summarized in Table 2.1 below.

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

Water Location	Source Lake	Jan	Feb	March	April	May	June
Camp	Third Portage Lake	3,612	3,264	3,141	2,155	2,484	2,807
Mill (freshwater tank)	Third Portage Lake	220,085	229,949	270,242	219,998	231,334	130,128
Emulsion plant	Unnamed Lake	67	76	75	70	114	83
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>223,764</b>	<b>233,289</b>	<b>273,458</b>	<b>222,223</b>	<b>233,932</b>	<b>133,018</b>
<b>Ore Water (m<sup>3</sup>)</b>	Ore	4,668	3,821	2,306	0	534	5,737
<b>Reclaim Water Usage (m<sup>3</sup>)</b>	Tailings Pond	0	0	0	0	864	185,144

Water Location	Source Lake	July	Aug	Sept	Oct	Total
Camp	Third Portage Lake	2,966	2,634	2,467	2,584	28,114
Mill (freshwater tank)	Third Portage Lake	183,029	170,286	144,040	145,024	1,944,115
Emulsion plant	Unnamed Lake	137	116	110	168.2	1,013
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>186,132</b>	<b>173,036</b>	<b>146,617</b>	<b>147,776</b>	<b>1,973,242</b>
<b>Ore Water (m<sup>3</sup>)</b>	Ore	4,895	3,585	3,135	2,606	<b>31,287</b>
<b>Reclaim Water Usage (m<sup>3</sup>)</b>	Tailings Pond	152,428	161,914	202,706	164,427	<b>867,483</b>

### 2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In October, 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 October, 69,033 m<sup>3</sup> of water was pumped from ST-S-5 sump to Portage Pit.

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 Engineering Department, as well as daily monitoring of piezometric values.

## 2.4 ASSAY ROAD SEEPAGE

In October, no water was pumped from the mill trench back to the mill. No non-conformities were found.

## 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 October.

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.

No water was pumped from the Stormwater Management pond to the tailings storage facility during the month.

**Table 2.6.1: Seprotech Effluent Results**

Parameters	Units	October 5, 2020
Ammonia (NH <sub>3</sub> )	mg N/L	0.4
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	35.62
Total Kjeldahl Nitrogen	mg N/L	38
BOD-5	mg/L	17
COD	mg/L	80
Total Suspended Solids	mg/L	20
Nitrate	mg N/L	2.75
Nitrite	mg N/L	1.62
pH*	Units	6.90
Fecal Coliform	UFC/100 mL	1000
Total Coliform	UFC/100 mL	< 10,000

\*Parameter measured by STP operators

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

Parameters	Units	October 5, 2020
Ammonia (NH <sub>3</sub> )	mg N/L	0.02
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	30.45
Total Kjeldahl Nitrogen	mg N/L	34
BOD-5	mg/L	3
COD	mg/L	88
Total Suspended Solids	mg/L	9
Nitrate	mg N/L	42.7
Nitrite	mg N/L	0.04
pH*	Units	5.80
Fecal Coliform	UFC/100 mL	1,820
Total Coliform	UFC/100 mL	10,000

\*Parameter measured by STP operators

## 2.7 VAULT ATTENUATION POND EFFLUENT

No discharge has occurred from the Vault Attenuation Pond since October 9, 2017. There is currently no plan to restart the discharge in 2020.

## 2.8 PHASER ATTENUATION POND

No water was pumped from the Phaser Attenuation Pond in October.

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

## 2.9 EAST DIKE SEEPAGE EFFLUENT

The discharge to Second Portage Lake was restarted on October 23 upon review of the water quality data to ensure all discharge criteria were met. A total of 2,927 m<sup>3</sup> was discharged during the month.

Two (2) weekly effluent samples were collected at ST-8 in October 2020. The TSS results did not exceed the maximum allowable grab sample concentration of 30 mg/L or the maximum monthly average concentration of 15 mg/L permitted by the Water License, Part F, Item 7. The TSS monitoring results for October is shown in Table 2.9.1 below. There were no exceedances of Water Licence or MDMER criteria during the month.

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

Parameter	Unit	Sample Date		Monthly Average
		10/24/2020	10/26/2020	
Total Suspended Solids	mg/L	<1	4	2.25

Monthly regular sampling pursuant to the Water License was also conducted at this location during the month. Results are shown in Table 2.9.2 below. There were no exceedances of MDMER criteria.

**Table 2.9.2: October 2020 Monthly Monitoring Results**

Parameter	Unit	Sample Date
		10/26/2020
pH*	mg/L	7.84
Aluminum	mg/L	<0.005
Sulphate	mg/L	6.6
Arsenic	mg/L	0.0009
Copper	mg/L	0.0006
Nickel	mg/L	<0.0005
Lead	mg/L	<0.00017
Zinc	mg/L	<0.001
Radium 226	mg/L	<0.002
Total Cyanide	mg/L	<0.001

## 2.10 NON CONTACT WATER

Portage Area East diversion ditch (ST-5) and West diversion ditch (ST-6) water quality results are shown in Tables 2.10.1 and 2.10.2, respectively.

TSS results for both stations did not exceed the maximum allowable grab sample concentration (30 mg/L) or the maximum average concentration (15 mg/L) permitted by the Water License Part F, Item 7.

**Table 2.10.1: Portage Area East Diversion Ditch (ST-5) Results**

Parameters	Units	October 5, 2020
Total Suspended Solids	mg/L	3

**Table 2.10.2: Portage Area West Diversion Ditch (ST-6) Results**

Parameters	Units	October 5, 2020
Total Suspended Solids	mg/L	3

## 2.11 IN-PIT DISPOSAL

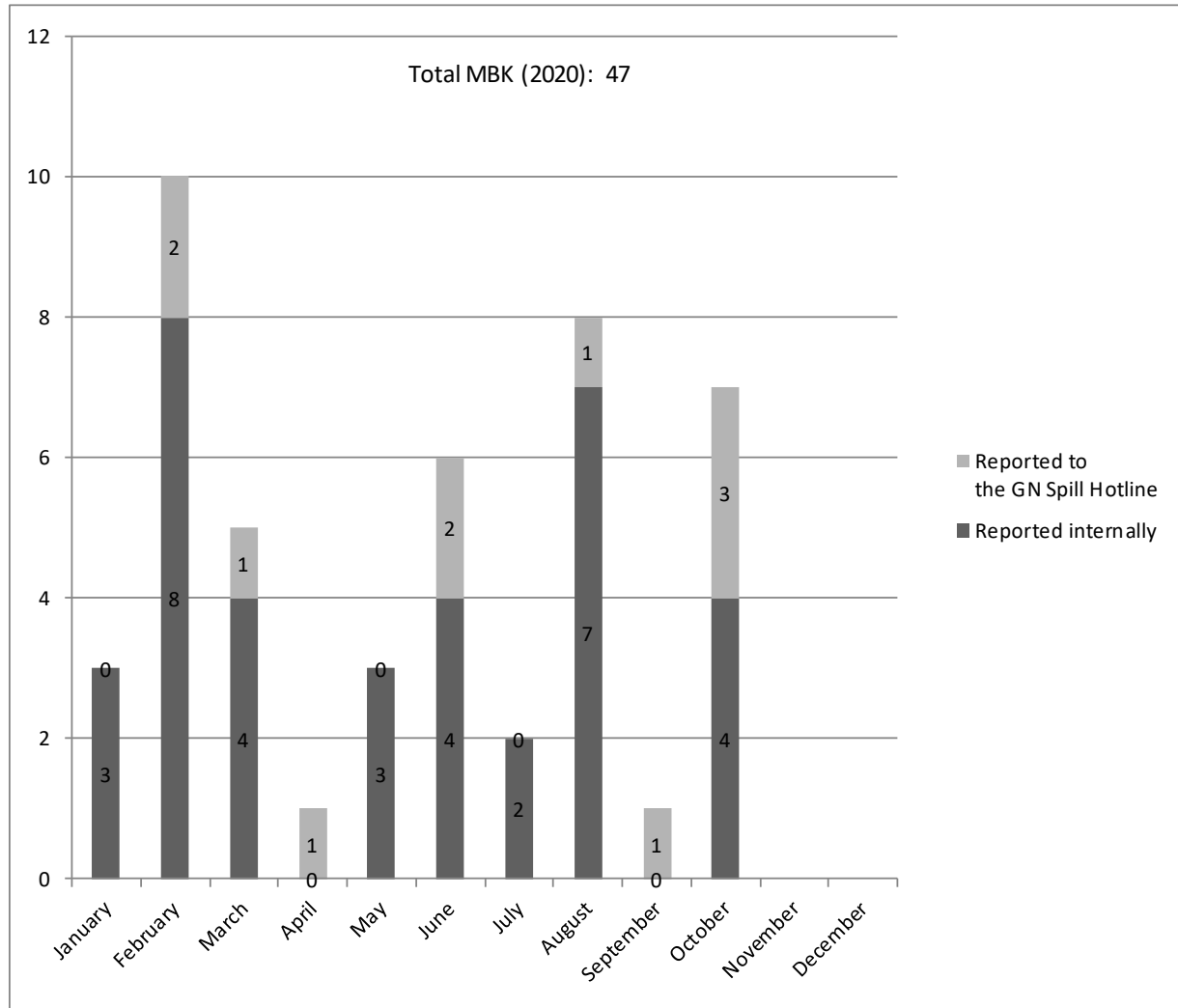
In-Pit tailings disposal occurred in Portage Pit E and reclaim water was taken from Portage Pit A for the month.

## SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2020 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for October.

Seven (7) spills occurred in October, two (2) of which were reported to regulators and one (1) was considered an environmental incident that was also reported to regulator for due diligence. The spills were contained and clean-up actions were monitored closely by the Environment Department. There was no off-site impact to any watercourses.

**Figure 3.1 2020 Reported and Non-Reported Spills**





**Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, October 2020**

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
October 5, 2020 ( <i>Environmental Incident</i> )	Tailings Dust	NA	NA	Tailings Storage Facility	It was observed that wind was carrying tailing dust airborne over a large area extending outside the property. The volume of dust is unknown.	Additional monitoring of lakes in the surrounding area was completed and a short-term dust suppression plan was developed and implemented. A long-term dust mitigation plan is currently being developed.
October 6, 2020	Diesel	2	L	Fuel Farm Meadowbank	Equipment failure	Spill was cleaned using absorbent pads and the contaminated material was adequately disposed of.
October 8, 2020	Diesel	250	L	Baker Lake OHF	Overfilling of fuel tank	Contaminated soil was removed and adequately disposed of in contaminated soil bin.
October 21, 2020	Waste Oil	200	L	Dyno Noble Waste Oil Sea Can	Waste oil tote tipped while being put into sea can, the lid was not on properly and waste oil spilled onto the ground.	Contaminated soil was removed and put in the MBK landfarm for disposal.
October 21, 2020	Hydraulic Oil	30	L	Winter Parking	Equipment failure	Contaminated soil was removed and put in the MBK landfarm for disposal.
October 25, 2020	Hydraulic Oil	30	L	Fountain Tire Shop	Equipment failure	Contaminated soil was removed and adequately disposed of.
October 25, 2020	Diesel	TBD	L	Freshwater Barge Road	Equipment failure	Spill pads were used to clean up the spill. Spill pads were then adequately disposed of.