



MEADOWBANK DIVISION

Monitoring Program Summary Report

November 2019

Type A Water License 2AM-MEA1526

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SECTION 1 • BACKGROUND

As required under Part I, Item 20 of Type A Water License 2AM-MEA1526 (Amendment No.3), this report documents the water management and monitoring activities at the mine site for the month. This includes water usage, Vault Attenuation Pond discharge water quality, Phaser Attenuation Pond, 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 In-Pit disposal update.

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 November is summarized in Table 2-1 below.

Table 2-1: Freshwater Usage (m³)

Water Location	Source Lake	Jan	Feb	March	April	May	June
Camp	Third Portage Lake	3 577	3 238	3 539	3 188	3 624	3 418
Mill (freshwater tank)	Third Portage Lake	214 981	182 096	112 326	142 405	147 851	218 935
Emulsion plant	Unnamed Lake	50	13	48	57	83	16
Total Freshwater Usage (m³)		218 608	185 347	115 913	145 650	151 558	222 369
Ore Water (m³)	Ore	4 610	3 045	2 727	4 539	6 203	6 927
Reclaim Water Usage (m³)	Tailings Pond	7 180	29 023	91 207	69 216	82 018	17 693

Water Location	Source Lake	July	Aug	Sept	Oct	Nov	Total
Camp	Third Portage Lake	3 194	3 197	3 193	3 236	3 363	36 767
Mill (freshwater tank)	Third Portage Lake	220 398	76 341	209 339	148 008	238 530	1 911 210
Emulsion plant	Unnamed Lake	64	52	78	97.1	67.4	624
Total Freshwater Usage (m³)		223 656	79 590	212 610	151 341	241 960	1 948 601
Ore Water (m³)	Ore	7 251	5 992	2 454	4 430	3 901	52 079
Reclaim Water Usage (m³)	Tailings Pond	41 309	157 510	6 706	105 372	1 042	608 276

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In November, no water was pumped back to the North Cell TSF from the ST-16 sump due to freezing conditions. No water was transferred from the WEP1 and WEP2 sumps to the ST-16 sump.

Agnico Eagle completed in November inspections at the Portage and Vault RSFs. No non conformity were found. No open water sampling at WEP1 (Station ST-30) and WEP2 (Station ST-31) were also completed during the month.

2.3 CENTRAL DIKE SEEPAGE

In November, a total of 62,084 m³ of water was pumped from ST-S-5 sump to Portage Pit or Tailings Storage Facility South Cell.

Sampling was conducted monthly at ST-S-5 and the South Cell TSF (ST-21) as per the requirements of the NWB water license.

Daily visual inspections were also completed by the Engineering Department.

2.4 ASSAY ROAD SEEPAGE

In November, no of water was pumped back from the mill trench back to the mill. Inspections of the area were conducted during the month. No trench sampling and wells monitoring for CN downstream has been taken due to freezing conditions.

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL

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

2.6 SEEPAGE AT PIT WALL AND PIT WALL FREEZE/THAW AND PERMAFROST AGGRADATION

In November, ice wall continued to be observed into Vault Pit. There is no more mining activities in Vault Pit.

2.7 SEWAGE TREATMENT PLANT

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

The Seprotech STP results are shown in Table 2.7.1 below; the LJ-Mix STP results are shown in Table 2.7.2. The effluent is discharged to the Stormwater Management pond, which is pumped to the South Cell TSF during summer months. In November, no water was discharged from the Stormwater Management pond to the South Cell TSF.

Table 2.7.1: Seprotech Effluent Results

Parameters	Units	November 4, 2019
Ammonia (NH ₃)	mg N/L	1.06
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	62.2
Total Kjeldahl Nitrogen	mg N/L	72.6
BOD-5	mg/L	10
COD	mg/L	78
Total Suspended Solids	mg/L	12
Nitrate	mg N/L	6.41
Nitrite	mg N/L	1.05
pH*	Units	7.10
Fecal Coliform	UFC/100 mL	170
Total Coliform	UFC/100 mL	<10,000

*Parameter measured by STP operators

Table 2.7.2: LJ-Mix Effluent Results

Parameters	Units	November 4, 2019
Ammonia (NH ₃)	mg N/L	0.12
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	32.3
Total Kjeldahl Nitrogen	mg N/L	73.1
BOD-5	mg/L	56
COD	mg/L	84
Total Suspended Solids	mg/L	36
Nitrate	mg N/L	52.4
Nitrite	mg N/L	2.11

pH*	Units	7.00
Fecal Coliform	UFC/100 mL	19,000
Total Coliform	UFC/100 mL	130,000

*Parameter measured by STP operators

2.8 VAULT ATTENUATION POND EFFLUENT

No discharge from Vault Attenuation Pond since October 9, 2017. There is currently no plan to restart the discharge in 2019.

2.9 PHASER ATTENUATION POND

No water was pumped out from the Phaser Attenuation Pond in November.

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

2.10 EAST DIKE SEEPAGE EFFLUENT

East Dike Seepage discharge was stopped on March 30, 2019 and diverted back to the Pit. In November, the discharge to Second Portage Lake was restarted on November 13. A total of 7,239 m³ of water was discharged during the month.

Three (3) weekly effluent samples were collected at ST-8 in November 2019. TSS results did not exceed the maximum allowable grab sample concentration (30 mg/L) and maximum average concentration (15 mg/L) permitted by Water License, Part F, Item 6. TSS monitoring results for November 2019 are shown in Table 2.10.1 below. There have been no exceedances of MDMER criteria.

Table 2.10.1: East Dike Seepage Results for TSS

Parameters	Units	Nov. 13, 2019	Nov. 18, 2019	Nov. 25, 2019	Maximum Average Concentration
Total Suspended Solids	mg/L	2	<1	2	1.5

Monthly regular sampling pursuant to the Water License was also conducted at this location. Results are shown in Table 2.10.2 below. There have been no exceedances of MDMER for those criteria.

Table 2.10.2: November 2019 Monthly Monitoring Results

Parameters	Units	Nov. 13, 2019	Nov. 18, 2019	Nov. 25, 2019
pH*		7.84	7.59	8.04
Aluminum	mg/L	0.024	0.023	0.065
Sulphate	mg/L	9.6	6.8	7.4
Arsenic	mg/L	0.0011	0.0019	0.0025
Copper	mg/L	0.0020	0.0010	0.0026
Nickel	mg/L	0.0008	0.0006	0.0010
Lead	mg/L	<0.0003	<0.0003	0.0069
Zinc	mg/L	0.006	0.002	0.016
Radium 226	mg/L	<0.002	0.009	<0.002
Total Cyanide	mg/L	0.001	0.003	0.001

2.11 NON CONTACT WATER

In November, no monthly open water sampling conducted at Portage Area East (ST-5) and West diversion ditches (ST-6).

2.12 IN-PIT DISPOSAL

In-Pit disposal in Goose Pits was ongoing for November. No issues to report.

SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2019 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for November.

All spills reported internally (6) were managed appropriately on site according to Agnico's spill contingency plan. One (1) spill was reported to regulators in November. Spills were contained and cleaned, contaminated material was disposed to the appropriate area (landfarm, TSF if required), and the clean-up actions were monitored closely by the Environment Department. There was no off site impact to any watercourses.

Figure 3.1 2019 Reported and Non-Reported Spills

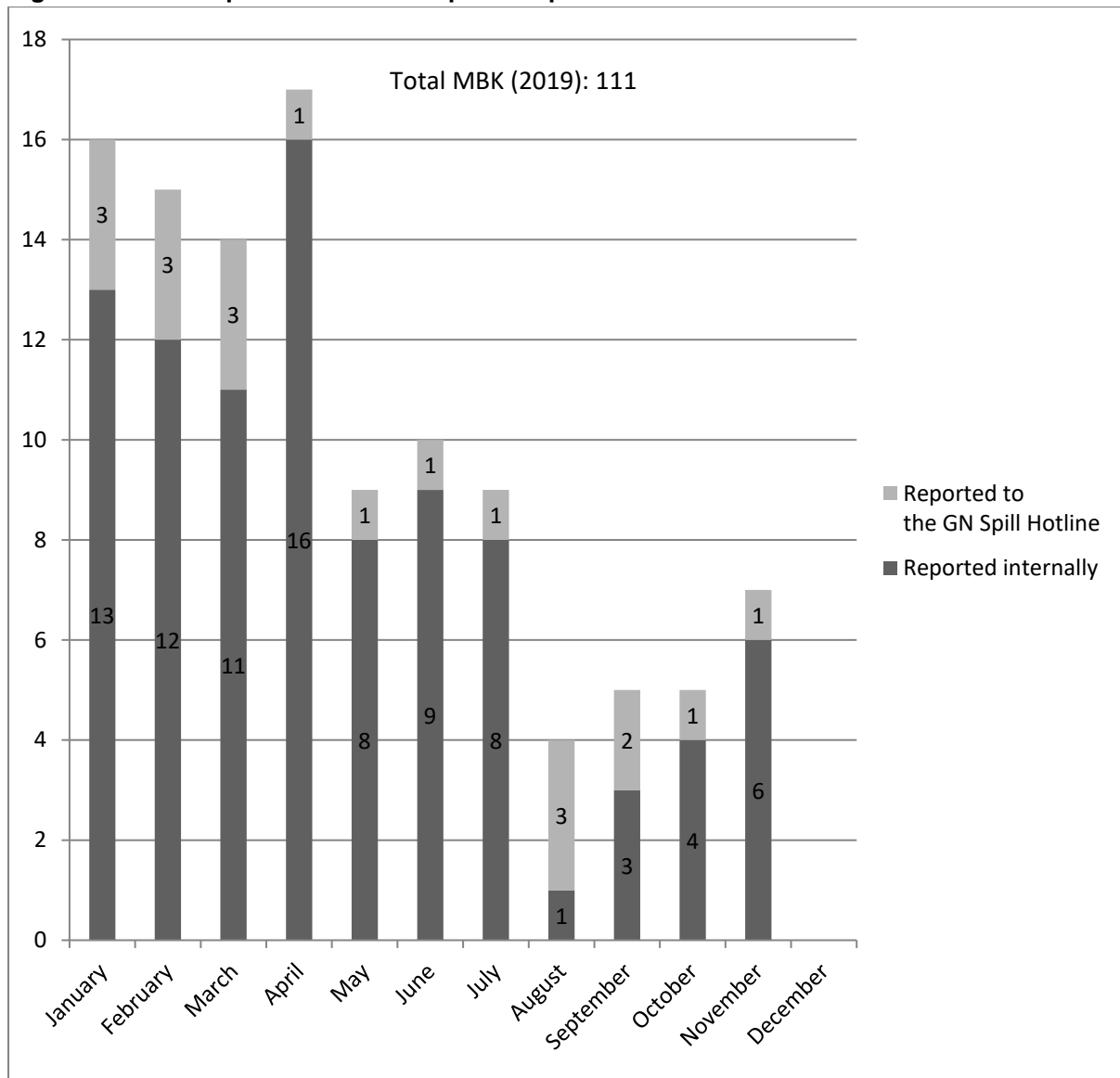


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, November 2019

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
November 1, 2019	Diesel	40	L	Baker Lake Tank Farm	Meter on the scully system defective	Contaminated soil picked up and disposed of appropriately
November 1, 2019	Coolant	10	L	Nahani Shop	Glycol stored in the steamer hose to prevent from freezing expended and spill out of the trailer.	Contaminated soil picked up and disposed of appropriately
November 6, 2019	Coolant	12	L	Sana yard	Probably rock ejected by fan blade on radiator core	Removed contaminated soil and snow with sky-track and put on contaminated special bin.
November 7, 2019	Hydraulic Oil	40	L	Portage parking haul truck	Truck was too cold and wheel seals leaked when fired up	Absorbent pads were put on the ground to contain the spill. Removed contaminated snow with loader and put on contaminated bin.
November 24, 2019	Grey Water	30	L	Laundry Lift Station (L/S#1)	A black pipe threaded nipple failure	Identify the leak location and repair. Contaminated soil picked up and disposed of appropriately
November 24, 2019	Coolant	4	L	Third Portage Lake	Coolant hose failure	Equipment stopped. After further inspection, a small coolant spill was observed. The contaminated material was picked up with a shovel and brought to the South Cell tailings.
November 27, 2019	Diesel Fuel (5L) and oil (10L)	15	L	AWAR KM 103	Truck roll over	The fuel tank was patched and a secondary containment was placed underneath. Contaminated soil picked up and disposed of appropriately