



MEADOWBANK DIVISION

Monitoring Program Summary Report

February 2020

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 February is summarized in Table 2-1 below.

Table 2-1: Freshwater Usage (m³)

Water Location	Source Lake	Jan	Feb	Total
Camp	Third Portage Lake	3 612	3 264	6 876
Mill (freshwater tank)	Third Portage Lake	220 085	229 949	450 034
Emulsion plant	Unnamed Lake	67	76	142
Total Freshwater Usage (m³)		223 764	233 289	457 052
Ore Water (m³)	Ore	4 668	3 821	8 489
Reclaim Water Usage (m³)	Tailings Pond	155	295	450

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In February, 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 February inspections at the Portage and Vault RSFs. No non-conformities 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 February, water was pumped from ST-S-5 sump to Tailings Storage Facility South Cell.

Sampling was conducted monthly at ST-S-5 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 February, 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 February, 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 February.

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. In February, no water was discharged from the Stormwater Management pond.

Table 2.7.1: Seprotech Effluent Results

Parameters	Units	February 3, 2020
Ammonia (NH ₃)	mg N/L	1.03
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	60.28
Total Kjeldahl Nitrogen	mg N/L	62
BOD-5	mg/L	8
COD	mg/L	71
Total Suspended Solids	mg/L	11
Nitrate	mg N/L	2.49
Nitrite	mg N/L	1.29
pH*	Units	7.60
Fecal Coliform	UFC/100 mL	120
Total Coliform	UFC/100 mL	5,000

*Parameter measured by STP operators

Table 2.7.2: LJ-Mix Effluent Results

Parameters	Units	February 3, 2020
Ammonia (NH ₃)	mg N/L	0.03
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	15.46
Total Kjeldahl Nitrogen	mg N/L	20
BOD-5	mg/L	14
COD	mg/L	73
Total Suspended Solids	mg/L	19
Nitrate	mg N/L	33.5
Nitrite	mg N/L	0.68
pH*	Units	7.00
Fecal Coliform	UFC/100 mL	>6,000
Total Coliform	UFC/100 mL	150,000

*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 2020.

2.9 PHASER ATTENUATION POND

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

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

2.10 EAST DIKE SEEPAGE EFFLUENT

In February, the discharge to Second Portage Lake was ongoing for the whole month.

Four (4) weekly effluent samples were collected at ST-8 in February 2020. 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 January 2020 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	Feb 3, 2020	Feb 10, 2020	Feb 17, 2020	Feb 24, 2020	Maximum Average Concentration
Total Suspended Solids	mg/L	2	1	2	6	2.75

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: February 2020 Monthly Monitoring Results

Parameters	Units	Feb 10, 2020
pH*		8.15
Aluminum	mg/L	0.031
Sulphate	mg/L	8.7
Arsenic	mg/L	<0.0005
Copper	mg/L	0.001
Nickel	mg/L	<0.0005
Lead	mg/L	<0.0003
Zinc	mg/L	0.002
Radium 226	mg/L	0.007
Total Cyanide	mg/L	0.003

2.11 NON CONTACT WATER

In February, 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 February. No issues to report. Discussion regrading the Pore Water Quality Management Plan update was held with CIRNAC and ECCC. Updated plan will be submitted with the 2019 Annual Report.

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 February.

All spills reported internally (8) were managed appropriately on site according to Agnico's spill contingency plan. Two (2) spills were reported to regulators in February. 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 2020 Reported and Non-Reported Spills

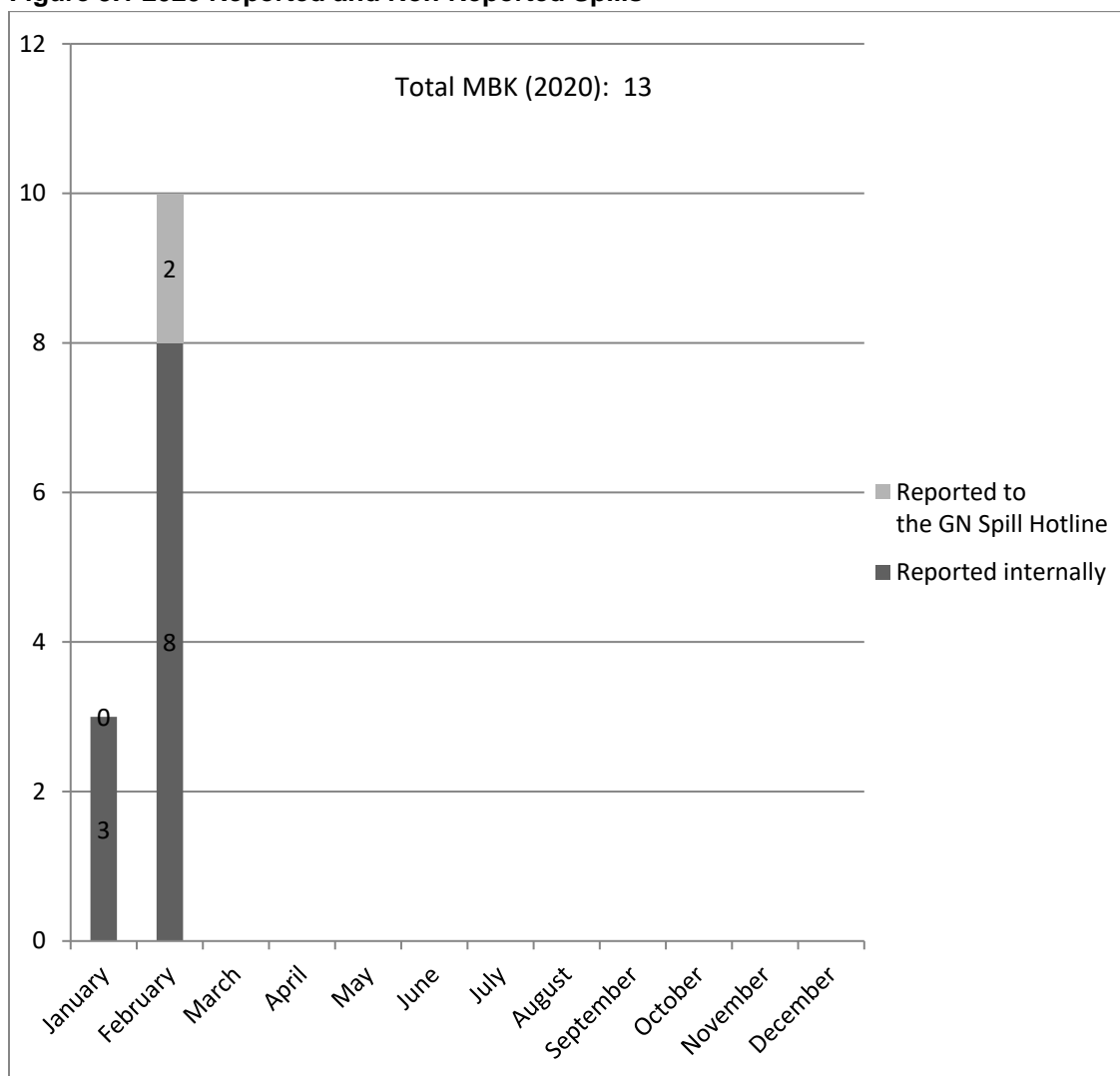


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, February 2020

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
February 4, 2020	Coolant	0.5	L	Parking environment office MBK	When doing the morning inspection around the pick-up, a little puddle of glycol/coolant was found under the pick-up.	Stopped the truck to stop the coolant from dripping. Picked up the spill with a shovel.
February 6, 2020	Engine oil	2	L	Environment office parking	At first start in the morning, the pickup leaked engine oil on the ground.	Stop the engine. Put absorbent pads underneath the vehicle. All contaminated material was disposed of adequately
February 6, 2020	Hydraulic oil	150	L	Maintenance shop parking	Drive seal failure	The unit was shut down and spill pads were placed on the ground. The pads were picked up and the contaminated area was scraped clean. Approximately 0.5m ³ was brought to the Meadowbank land farm
February 12, 2020	Coolant	4	L	SS Coverall	Coolant hose failure	Stop the excavator and clean the spill. Contaminated material disposed of in the contaminated material bin
February 15, 2020	Contaminated Ice	TBD	TBD	Central Dike Seepage	During operations at Meadowbank, water from the Central dike seepage was being pumped back into the South Cell tailings. During a routine inspection (6.2.3 of the Tailings Storage Facility - OMS), ice build up from the seepage discharge crested an area along south portion of the central dike. The ice formed on top of the frozen tailings.	The discharge into the south cell has been stopped and remedial actions are underway.
February 15, 2020	Engine Oil	5	L	Pushback parking	Equipment failure	Contaminated material picked up and disposed of adequately

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February 17, 2020	Sewage	20	L	Vault Washroom	Operator unhook hose too fast causing spill.	Contaminated material disposed of in the tailings pond
February 22, 2020	Coolant	20	L	FGL area	Coolant hose failure	Contaminated material picked up and disposed of adequately
February 22, 2020	Coolant	20	L	FGL garage	Coolant O-ring failure	Contaminated material picked up and disposed of adequately
February 29, 2020	Sewage	20	L	Vault Washroom	The sewage truck was pumping at Vault washroom and made a spill when he unplug the hose from the sewage truck.	Contaminated material disposed of in the tailings pond