



WHALE TAIL PROJECT

Monitoring Program Summary Report

November 2019

Type A Water License 2AM-WTP1826

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SECTION 1 • BACKGROUND

As required under Part I, Item 23 of Type A Water License 2AM-WTP1826, this report documents the water management and monitoring activities at the mine site for the month. This includes water usage, water and seepage monitoring around site, sewage treatment plan discharge, Whale Tail North Basin dewatering, Quarry 1 discharge and Whale Tail South Basin water transfer.

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

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

All water withdrawals related to Exploration activities is currently managed by Part C Item 1 of the Exploration Water License 2BB-MEA1828. All of the information regarding the use under this License 2BB-MEA1828 will be provided via the Annual Report required by Part B Item 6.

Agnico Eagle is authorized as per Part E Item 1 of the Water License 2AM-WTP1826 to intake water from Nemo Lake for a total year to date of 240,000 m³/year. A total volume of 5,389 m³ was withdrawn from Nemo Lake in November. Details are provided in Table 2.1.1 below.

Table 2.1.1: November 2019 – Freshwater Consumption

Water Location	Source Lake	Jan	Feb	March	April	May	June
Camp	Nemo	1 306	1 396	1 179	1 192	1 806	1 940
Construction/Operation	Nemo	1 283	2 188	3 076	2 206	2 831	2 829
Dust Suppression	Nemo / WTHR Pond	0	0	0	0	0	0
Total Freshwater Usage (m³)		2 589	3 584	4 255	3 398	4 637	4 769

Water Location	Source Lake	July	Aug	Sept	Oct	Nov	Total
Camp	Nemo	1 882	1 825	1 760	2 051	2 068	18 405
Construction/Operation	Nemo	3 431	3 094	2 445	3 337	2 456	29 176
Dust Suppression	Nemo / WTHR Pond	0	0	0	0.0	0.0	0
Total Freshwater Usage (m³)		5 313	4 919	4 205	5 389	4 524	47 581

2.2 LAKE WATER MONITORING

Lake around the Whale Tail Project were monitored on a monthly basis during the open water season. In November, no monthly samples were taken at Lake A47 (ST-WT-6), Lake A45 (ST-WT-13), Lake A16 (ST-WT-14) and Lake A15 (ST-WT-15) due to freezing conditions and safety issue to go on the lake.

2.3 WHALE TAIL DIKE SEEPAGE MONITORING

In November the Whale Tail North dewatering continued and seepage water was still observed at the toe of the structure. Seepage was estimated at 400 m³/h based on V Notch measurement and visual observation.

Water management strategy were continued to be put in place to intercept the seepage and be ready for winter water management.

Work began on the construction of a grouting blanket at Whale Tail Dike in an effort to reduce the seepage reporting to WTN. The tasks done in November for this activity included the drilling of casing to bedrock downstream of the secant wall and installation of casing plug.

With the beginning of grouting activity seepage is no longer transferred from the interception trench to WTS.

Agnico continue to manage water from WTD seepage as part of the dewatering of the Whale Tail North Basin and is be monitored for Water License 2AM-WTP1826 Part D Item 7. Refer to Section 2.6 below for the water quality monitoring results.

Seepage water quality is also monitored as per the requirement of the Water License. The sampling station is named ST-WT-17 and is minimally sampled on a monthly basis for Group 1.

2.4 SEEPAGE INTO MAMMOTH LAKE

As required by Part H, Item 8b of Water License 2AM-WTP1826, Agnico Eagle Mine Limited – Meadowbank Division ("Agnico") informed regulators via email on August 25 that during an inspection held on August 24 at 10:30hrs of the Whale Tail Waste Rock Storage Facility (WRSF) Dike, a water flow was observed at the toe of the dike entering Mammoth Lake. Work was immediately initiated to pump out the WRSF collection pond which decreased the water flow on August 24. By August 26, Agnico had actively pumped the water from the WRSF pond back to Quarry 1 and approximately 50% of the water was pumped in two (2) days. By September 1, the available water was pumped back to Quarry 1 and only a small amount of water that could not be pumped efficiently due to the local topography remained in the pond. A sump has since been further excavated within the footprint of the WRSF pond to pump out the remaining standing water to Quarry 1. As a mitigation measure, the WRSF will be kept dry until the investigation is done and corrective actions are completed. By September 1, no apparent flow was observed at the toe of the dike.

Field measurements have been taken since the notification of the flow. Field measurements showed low turbidity and there were no concerns with pH noted. Acute lethality samples were taken on August 26 from the source as well as the receiving waterbody (Mammoth Lake). Results showed no mortalities in both samples. Samples were also taken for water quality specifically for Metal and Diamond Mining Effluent Regulations (Canada) related parameters. On September 20, a follow up report was sent to regulators. A second follow up report will be provided to regulators in December.

2.5 SEWAGE TREATMENT PLANT

Effluent from the Exploration Camp Sewage Treatment Plan (STP) is discharged to the Whale Tail Lake North Basin and is monitored as per the Water License 2BB-MEA1828 Part D Item 10. All of the information regarding this discharge will be provided via the Annual Report required by 2BB-MEA1828 Part B Item 6. The STP associated to the exploration camp was permanently stopped in November.

The Sewage Treatment Plan located in the permanent camp associated with the Water License 2AM-WTP1826 was commissioned on April 12, 2019. Effluent is discharge in the future Whale Tail Attenuation Pond. As per Water License Schedule I Sampling Station ST-WT-11, effluent is to be sample four time per calendar year. Agnico is currently sampling the STP on a monthly basis and thus sample was taken in November. A total of 2,046 m³ was discharged during the month.

2.6 WHALE TAIL NORTH BASIN DEWATERING

As describe in Section 2.3 above, Agnico has discharge the Whale Tail dike (WTD) seepage as part of the Whale Tail North Dewatering to Whale Tail South Basin (ST-DD-7). A total volume of 397,748 m³ was discharged in November

No dewatering of the Whale Tail North Basin to Mammoth Lake (ST-DD-9), via the temporary diffuser, in November.

As per Water License Part D Item 7, the effluent from Whale Tail North dewatering, either to Whale Tail South or Mammoth Lake shall not exceed the following quality limits:

Parameter	Maximum Monthly Mean	Short Term Maximum
Total Suspended Solids	15.0 mg/L	22.5 mg/L
Turbidity	15 NTU	30 NTU
pH	6.0 to 9.0	6.0 to 9.0
Total Aluminum	1.5 mg/L	3.0 mg/L

The pH and Aluminum concentrations were as follows for ST-DD-7:

- pH 24 hour minimum/maximum: 6.31 / 7.59 (Limit is 6-9 units)
- pH 30 days minimum/maximum: 7.02 / 7.54 (Limit is 6-9 units)
- Al 24 hour maximum concentration: 0.279 mg/L (Limit is 3.0 mg/L)
- Al 30 days maximum concentration: 0.135 mg/L (Limit is 1.5 mg/L)

The turbidity and Total Suspended Solids (TSS) concentrations were as follows:

- NTU 24 hour maximum concentration: 16.6 NTU (Maximum Limit is 30 NTU)
- NTU 30 days mean maximum concentration: 9.21 NTU (Maximum Limit is 15 NTU).
- TSS 24 hour maximum concentration: 17 mg/L (Maximum Limit is 22.5 mg/L)
- TSS 30 days mean maximum concentration: 11.04 mg/L (Maximum Limit is 15 mg/L)

Table 2.6.1 summarizes the dewatering monitoring results for pH, aluminum, turbidity and TSS for the month. No non-compliance was observed in November.

Table 2.6.1: Whale Tail North Basin Dewatering Monitoring ST-DD-7

Date	ST-DD-7				License Requirement			
	Turbidity ¹	TSS ²	pH ¹	Total Al ²	NTU 30-day Mean	TSS 30-day Mean	pH 30-day Mean	Al 30-day Mean
	NTU	mg/L		mg/L	15	15	6.0 - 9.0	3
01-11-2019	4.43	4	7.59		8.39	9.38	7.54	
02-11-2019	4.18	7	7.37		8.29	9.34	7.54	
03-11-2019	No discharge							
04-11-2019	No discharge							
05-11-2019	No discharge							
06-11-2019	No discharge							
07-11-2019	16.6	17	7.16	0.279	9.21	11.04	7.49	0.135
08-11-2019	15.7	4	7.77		8.69	7.56	7.50	
09-11-2019	4.21	9	7.19		8.67	7.72	7.50	
10-11-2019	5.23	4	7.31		8.70	7.44	7.49	
11-11-2019	4.48	6	6.90	0.036	8.68	7.60	7.46	0.127
12-11-2019	3.28	4	7.18		8.67	7.36	7.45	
13-11-2019	1.20	3	7.08		8.54	7.32	7.42	
14-11-2019	0.96	8	6.31	0.025	8.41	7.28	7.38	0.121
15-11-2019	3.35	4	6.88		8.35	7.32	7.37	
16-11-2019	0.77	1	6.89		8.17	7.12	7.33	
17-11-2019	0.77	<1	7.30		7.94	6.90	7.32	
18-11-2019	0.93	<1	6.97	0.006	7.82	6.60	7.30	0.105
19-11-2019	1.61	4	6.90		7.75	6.64	7.26	
20-11-2019	3.31	9	7.17		7.74	6.80	7.27	
21-11-2019	2.03	6	6.75	0.045	7.67	6.84	7.22	0.106
22-11-2019	1.95	1	6.86		7.62	6.76	7.19	
23-11-2019	2.13	3	6.86		7.52	6.72	7.17	
24-11-2019	2.05	2	6.80		7.42	6.60	7.15	
25-11-2019	1.95	2	6.90	0.010	7.37	6.44	7.11	0.096
26-11-2019	1.70	<1	6.57		7.11	5.78	7.08	
27-11-2019	2.66	2	6.80		4.13	5.63	7.07	
28-11-2019	3.29	<1	6.87		3.80	4.65	7.05	
29-11-2019	0.70	4	7.10	<0.005	3.61	4.50	7.04	0.064
30-11-2019	0.95	3	7.03		3.48	4.19	7.02	
1 - Measures taken in the field								
2- Results from the certified laboratory								
Half-detection limit use in the mean calculation								

2.7 QUARRY 1 DISCHARGE

No discharge from Quarry to Mammoth Lake in November

2.8 WHALE TAIL SOUTH WATER TRANSFER

On September 6, a meeting was held between Agnico and NWB to discuss Whale Tail Project Water Management Strategy. The strategy include, among other, the Whale Tail South Basin (WTS) non-contact water transfer to Mammoth Lake. This pumping activity is to lower and then maintain water level in WTS in order to allow for the construction of the Whale Tail South Channel (SWTC) and preserve dike integrity. The objective of this activity is to temporarily substitute passive flow via the SWTC with a pumping alternative that would comply with the original intent of the approved water balance and Water License 2AM-WTP1826 (same origin and destination of water). Water quality monitoring will follow the Water License 2AM-WTP1826 Part F Item 6 and Schedule I Table 1 - Group 3, same as the one required for water flowing through the Whale Tail South Channel

Water transfer between Whale Tail South to Mammoth Lake was ongoing for the whole month of November. A total volume of 930,730 m³ was transferred. As per Water License Part F Item 6, the effluent from this discharge shall not exceed the limits detailed in Table 2.8.1 below. No non-compliance observed during the month of November related to this non-contact water transfer to Mammoth Lake.

Table 2.8.1: Whale Tail South Water Transfer

Parameter	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration Grab Sample	Unit	Sample Date				Average
				ST-WT-25 2019-11-04	ST-WT-25 2019-11-11	ST-WT-25 2019-11-18	ST-WT-25 2019-11-25	
Conventional Constituents								
pH			N/A	7.29	6.91	7.05	7.11	7.09
Turbidity			NTU	1.66	1.61	1.07	1.14	1.37
Total suspended solids	15	30	mg/L	3	2	3	<1	2.1
Sulphate			mg/L	2.6	0.9	5.0	6.0	3.6
Total Metals								
Aluminum			mg/L	0.028	0.025	0.017	0.021	0.0063
Arsenic			mg/L	0.0016	0.0021	0.0023	<0.0005	0.0020
Copper			mg/L	0.0007	<0.0005	0.001	0.0032	0.0013
Lead			mg/L	<0.0003	<0.0003	<0.0003	<0.0003	0.00015
Nickel			mg/L	0.0018	0.0025	0.002	0.0027	0.0023
Zinc			mg/L	<0.001	<0.001	0.003	0.005	0.0045

Parameter	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration Grab Sample	Unit	Sample Date				Average
				ST-WT-25a 2019-11-04	ST-WT-25a 2019-11-11	ST-WT-25a 2019-11-18	ST-WT-25a 2019-11-25	
Conventional Constituents								
pH			N/A	7.26	6.93	7.08	7.13	7.10
Turbidity			NTU	1.44	1.52	1.10	0.86	1.23
Total suspended solids	15	30	mg/L	4.0	1.0	<1	<1	1.5
Sulphate			mg/L	2.6	2.5	5.2	7.1	4.4
Total Metals								
Aluminum			mg/L	0.028	0.043	0.021	0.012	0.026
Arsenic			mg/L	0.0016	0.0029	0.0022	<0.0005	0.0017
Copper			mg/L	0.0007	0.0078	0.0008	0.0016	0.0027
Lead			mg/L	<0.0003	0.001	<0.0003	<0.0003	0.00036
Nickel			mg/L	0.0016	0.0048	0.0021	0.0023	0.0027
Zinc			mg/L	<0.001	0.011	0.003	<0.001	0.00375

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 (18) were managed appropriately on site according to Agnico's spill contingency plan. Two (2) spills were reported to regulators in November. 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 2019 Reported and Non-Reported Spills

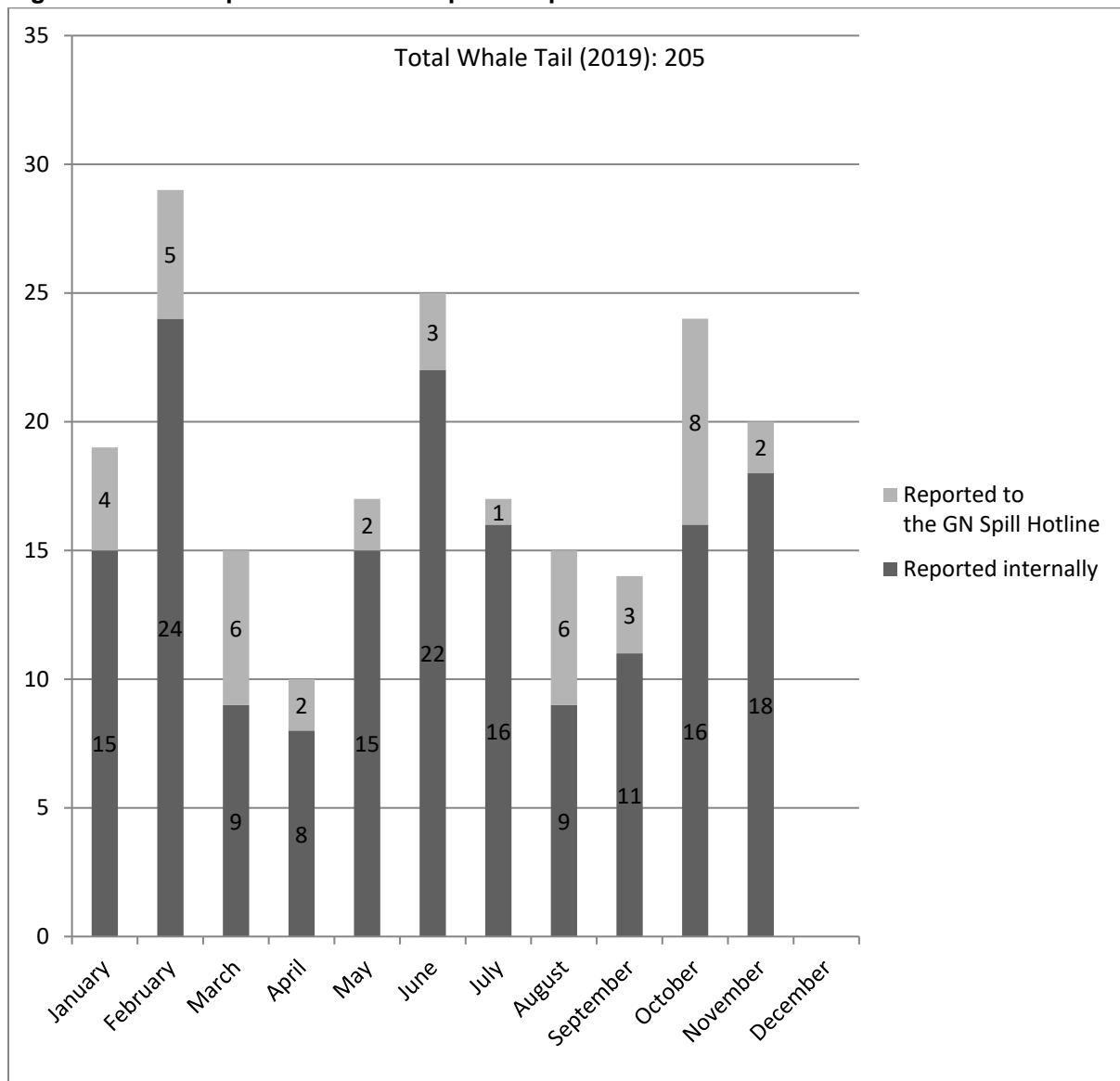


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, November 2019

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
November 1, 2019	Coolant	27	L	WTHR KM 128	Coolant pump hose failure	Absorbent pad were put on the ground. The contaminated soil was removed and disposed properly.
November 3, 2019	Hydraulic Oil	60	L	Quarry 2	Hydraulic hose failure	Contaminated soil picked up and disposed of appropriately
November 6, 2019	Hydraulic Oil	5	L	Maintenance shop	Hydraulic pipe failure	Truck brought to mechanical shop for repair. Contaminated soil picked up and disposed of appropriately
November 11, 2019	DEF Diesel	2	L	Fuel Farm Inspection Pad	Arriving at Amaruq, the driver parked LHT 08 by the Fuel Farm area to perform his inspection. Approaching the DEF tank, employee saw some DEF leaking. By the time he tried to identify the location the leak had stopped.	Contaminated soil picked up and disposed of appropriately
November 11, 2019	Hydraulic Oil	10	L	WTHR KM 165	Drive shaft between the transmission and the transfer case had failed and damaged some air lines. The transfer case yoke was broken couldn't hold the oil anymore.	Absorbent pads and booms were put in place to control the spill. Contaminated soil picked up and disposed of appropriately
November 13, 2019	Hydraulic Oil	75	L	Pattern 5144MSW 92 AMQ	Hydraulic hose O-ring failure	Mechanic was called to repair the O-ring. Contaminated soil picked up and disposed in the yellow bin behind the shop.
November 14, 2019	Hydraulic Oil	80	L	WRSF	Hydraulic hose failure	Stop equipment and contain the spill. Contaminated soil picked up and disposed of appropriately

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November 14, 2019	Diesel	60	L	WTHR KM 151	Equipment flipped on its side witch caused fuel leaking by the breather	Plastic bag was put on the breather to contained fuel leaking. Contaminated soil picked up and disposed of appropriately
November 15, 2019	Hydraulic Oil	70	L	WTHR	Hydraulic hose failure	Stop equipment to contain the spill. Contaminated soil picked up and disposed of in the yellow bin at old shop
November 16, 2019	Transmissi on Oil	30	L	WTHR KM 150	Transmission filter broken because equipment flipped on its side	Stopped equipment. Contaminated soil picked up and disposed of appropriately
November 19, 2019	Hydraulic Oil	20	L	Phase 1 Ramp	O-ring failure	Stop equipment to contain the spill. Contaminated soil picked up and disposed of in the yellow bin at old shop
November 19, 2019	Diesel	85	L	Fuel farm	Refueling nozzle defective	Contaminated soil picked up and disposed of appropriately
November 20, 2019	Hydraulic oil	30	L	Road 24	Drain plate on transmission broken	Contaminated soil picked up and disposed of appropriately
November 21, 2019	Coolant	25	L	Quarry 2	Coolant radiator cap failure	Contaminated soil picked up and disposed of appropriately
November 23, 2019	Hydraulic oil	75	L	Quarry 2	Hydraulic hose cylinder failure	Contaminated soil picked up and disposed of appropriately. Contaminated soil picked up and disposed of appropriately
November 24, 2019	Turbine Oil	5	L	Whale Tail Dike	A fitting broke on a hose of air compressor	The air compressor was stopped. Contaminated soil and absorbent pads were collected and disposed of properly.
November 27, 2019	Coolant	200	L	WRSF	The fan of the haul truck had contact with the radiator, causing a coolant leak	Contaminated soil picked up and disposed of appropriately

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November 27, 2019	Hydraulic Oil	120	L	Quarry 2	Hydraulic hose failure	Contaminated soil picked up and disposed of appropriately
November 28, 2019	Hydraulic Oil	2	L	WRSF	Hydraulic hose failure	Operator called for a mechanic. Contaminated soil picked up and disposed of appropriately
November 30, 2019	Hydraulic Oil	10	L	Top lift WRSF	Hydraulic hose failure	The operator immediately shut the equipment down to prevent more spillage.