

# WHALE TAIL PROJECT

# Monitoring Program Summary Report June 2019

## **Table of Contents**

SECTION 1	BACKGROUND	3
SECTION 2	• WATER MANAGEMENT	4
2.1	Water Usage	4
	LAKE A47 WATER MONITORING	
2.3	LAKE A15 WATER MONITORING.	4
2.4	LAKE A16 OUTLET WATER MONITORING	4
2.5	LAKE A45 WATER MONITORING	4
2.6	WHALE TAIL DIKE SEEPAGE MONITORING	4
	SEWAGE TREATMENT PLANT	
2.8	Whale Tail north Basin Dewatering	5
SECTION 3	SPILL MANAGEMENT	7

### 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 and Whale Tail North Basin dewatering.

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 A total volume of 4,6769 m³ was withdrawn from Nemo Lake in June. Details are provided in Table 2.1.1 below.

Table 2.1.1: June 2019 – Freshwater Consumption

Water Location	Source Lake	Jan	Feb	March	April	May	June	Total
Camp	Nemo	1 306	1 396	1 179	1 192	1 806	1 940	8 819
Construction/Operation	Nemo	1 283	2 188	3 076	2 206	2 831	2 829	14 413
Dust Suppression	Nemo / WTHR Pond	0	0	0	0	0	0	0
Total Freshwater Usage (m³)		2 589	3 584	4 255	3 398	4 637	4 769	23 232

#### 2.2 LAKE A47 WATER MONITORING

No monitoring sample at Lake A47 (ST-WT-6) was collected in June due to frozen condition.

#### 2.3 LAKE A15 WATER MONITORING

No monitoring sample at Lake A15 (ST-WT-15) was collected in June due to frozen condition.

#### 2.4 LAKE A16 OUTLET WATER MONITORING

No monitoring sample at Lake A16 (ST-WT-14) was collected in June due to frozen condition.

#### 2.5 LAKE A45 WATER MONITORING

No monitoring sample at Lake A45 (ST-WT-13) was collected in June due to frozen condition.

#### 2.6 WHALE TAIL DIKE SEEPAGE MONITORING

During dewatering operations of the North Basin, a small outflow of water has been observed out of the downstream toe of Whale Tail Dike in a low spot. For the moment it is not possible to measure the rate of outflow and to determine its provenance as dewatering is ongoing and the toe of the structure is still covered with ice and snow. Agnico is closely following the performance of the structure and will monitor the rate of outflow once access to the downstream toe is possible.

#### 2.7 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 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. Regulatory sampling were taken in June. A total of 1,290 m³ was discharged during the month.

#### 2.8 WHALE TAIL NORTH BASIN DEWATERING

Dewatering of the Whale Tail North Basin to Whale Tail South Basin was stopped on May 29, 2019. No discharge to Whale Tail South in June occurred.

On June 17, dewatering was restarted. Dewatering water was treated via the WTP and then discharged to Mammoth Lake temporary diffusers. A total of 147,552 m<sup>3</sup> of water was discharged during the month (June 17, June 22 to June 30).

As per Water License Part D Item 7, the effluent from Whale Tail North Basin (ST-DD-9) dewatering 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
pН	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:

- pH 24 hour minimum/maximum: 6.42 / 6.74 (Limit is 6-9 units)
- pH 30 days minimum/maximum: 6.53 / 6.59 (Limit is 6-9 units)
- Al 24 hour maximum concentration: <0.005 mg/L (Limit is 3.0 mg/L)</li>
- Al 30 days maximum concentration: 0.0025 mg/L (Limit is 1.5 mg/L)

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

- NTU 24 hour maximum concentration: 1.04 NTU (Maximum Limit is 30 NTU)
- NTU 30 days mean maximum concentration: 0.47 NTU (Maximum Limit is 15 NTU)
- TSS 24 hour maximum concentration: 5 mg/L (Maximum Limit is 22.5 mg/L)
- TSS 30 days mean maximum concentration: 3.38 mg/L (Maximum Limit is 15 mg/L)

Table 2.9.1 summarizes the dewatering monitoring results for pH, aluminum, turbidity and TSS for the month. No non-compliance was observed in June.

Table 2.9.1: Whale Tail North Basin Dewatering Monitoring

		ST-D	D-9		License Requirement				
Date	Turbidity <sup>1</sup>	TSS <sup>2</sup>	pH <sup>1</sup>	Total Al <sup>2</sup>	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	
17-06-2019	0.04	NA	6.66						
22-06-2019	0.52	2	6.60		0.28	2.00	6.63		
23-06-2019	0.17	1	6.44		0.24	1.50	6.57		
24-06-2019	0.01	2	6.42	<0.005	0.19	1.67	6.53	0.0025	
25-06-2019	0.3	3	6.74		0.21	2.00	6.57		
26-06-2019	0.72	5	6.60		0.29	2.60	6.58		
27-06-2019	0.99	5	6.65		0.39	3.00	6.59		
28-06-2019	1.04	4	6.53	<0.005	0.47	3.14	6.58	0.0025	
29-06-2019	Pump Shute	down in the m	orning before	sampling	0.47	3.14	6.58		
30-06-2019	0.21	5	6.56	<0.005	0.44	3.38	6.58	0.0025	
1 - Measures taken in the field									
2- Results from the certified laboratory									
Half-detection limit use in the mean calculation									

#### **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 June.

All spills reported internally (22) were managed appropriately on site according to Agnico's spill contingency plan. Three (3) spills were reported to regulators in June. 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.

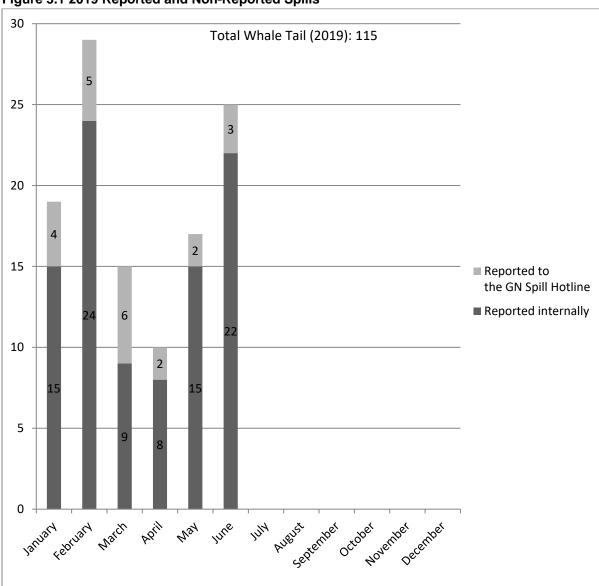


Figure 3.1 2019 Reported and Non-Reported Spills

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

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
June 6, 2019	Hydraulic oil	20	L	Quarry 2	Hydraulic hose failure	Contaminated soil picked up and disposed of appropriately
June 6, 2019	Glycol	10	L	WT UG shop	Radiator hose failure	Stopped truck to prevent a bigger leak and repaired the hose. Contaminated soil picked up and disposed of appropriately
June 7, 2019	Hydraulic Oil	40	L	5144MSW16	Ruptured hydraulic hose	Equipment stopped. Contaminated soil picked up and disposed off in the roll-off bin
June 7, 2019	Hydraulic oil	20	L	Quarry 2	One O-ring busted on BAC13	Contaminated soil picked up and disposed of appropriately
June 7, 2019	Hydraulic Oil	10	L	Quarry 2	O-ring busted on the LOA13	Contaminated soil picked up and disposed of appropriately
June 9, 2019	Hydraulic oil	35	L	Quarry 2	Hydraulic oil leak after loading truck	Contaminated soil picked up and disposed of appropriately
June 9, 2019	Coolant	10	L	WT Haul Road	Broken bolt in the shroud. Bolt hit the fan and ricochet in the radiator.	Contaminated soil picked up and disposed of appropriately
June 10, 2019	Coolant	30	L	RSF	Coolant hose failure	Contaminated soil picked up and disposed of appropriately
June 12, 2019	Coolant	10	L	Construction Pad H	Water pump failure	Contaminated soil picked up and disposed of appropriately
June 16, 2019	Transmission Fluid	4	L	Construction Pad H	Front right wheel seal failure	Contaminated soil picked up and disposed of appropriately

June 16, 2019	Hydraulic oil	15	L	Quarry 2	Mechanic failure	Contaminated soil picked up and disposed of appropriately
June 16, 2019	Hydraulic oil	450	L	Whale Tail	Hydraulic hose failure	Contaminated soil picked up and disposed of appropriately (MBK landfarm)
June 17, 2019	Hydraulic Oil	15	L	Northing 6928.6, Easting 14545.7	Unknown	Spill was contained and contaminated soil picked up and disposed of appropriately
June 19, 2019	Coolant	20	L	LHT loading area	Coolant hose failure	Spill was contained and contaminated soil picked up and disposed of appropriately
June 19, 2019	Coolant	40	L	LHT loading area	Coolant hose failure	Spill was contained and contaminated soil picked up and disposed of appropriately
June 20, 2019	Coolant	75	L	Quarry 2	Coolant hose failure	All contaminated material pick up, cleaned, and disposed off adequately. Hose was repaired.
June 22, 2019	Hydraulic Oil	10	L	Sana Crusher Pad	Hydraulic hose failure	Spill was contained and contaminated soil picked up and disposed of appropriately
June 22, 2019	Diesel	1	L	Tundra hole #AMQ-19-2077	Leak on the fitting on the tank and hose that bring the fuel to the water heater	Put absorbent pad. All contaminated material disposed off adequately
June 23, 2019	Coolant	60	L	Whale Tail Pit 5130MSW06	Coolant hose on engine got disconnected	Spill was contained and contaminated soil picked up and disposed of appropriately
June 23, 2019	Engine Oil	30	L	Waste Dump Parking	Engine hose failure	Spill was contained and contaminated soil picked up and disposed of appropriately. Call mechanic department for repair.
June 26, 2019	Coolant	80	L	5137MSW26	Coolant fitting hose failure	The equipment was shut down; absorbent pads were laid down while the machine was fixed. Absorbent pads

## Type A Water License 2AM-WTP1826 Monitoring Program Summary Report

						and contaminated material were put in the proper bin.
June 27, 2019	Diesel	200	L	N 65°13'33.2" W 96°23'33.6"	Fuel truck operator noticed fuel leaking behind him when returning from his fuel run. He pulled over and noticed a broken pipe	Fuel spill was contained as best possible with a spill kit and trenches. After, a shovel and a 50-ton truck collected the material that was transported the landfarm.
June 28, 2019	Hydraulic Oil	150	L	N 65°24'16.65" W 96°41'2.70"	Hydraulic hose from the tank on drill failure	The equipment was shut down and moved. Spill pad was used to clean up the drill and the contaminated material was picked up and brought to the MBK land farm.
June 28, 2019	Hydraulic Oil	80	L	5151MSW83 - Q2	Hydraulic hose failure	Stopped equipment and call for repair. All contaminated material disposed off adequately
June 29, 2019	Hydraulic Oil	5	L	Top of Quarry 2	Bucket Cylinder breakdown	Stopped equipment. All contaminated material disposed off adequately