



**AGNICO EAGLE**

WHALE TAIL PROJECT

## **Monitoring Program Summary Report**

**June 2021**

Type A Water License 2AM-WTP1830

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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-WTP1830 Amendment No.1. 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 22 of Type A Water License 2AM-WTP1830, 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 plant discharge and Whale Tail Attenuation Pond discharge.

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

## SECTION 2 • WATER MANAGEMENT

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### 2.1 WATER USAGE

Fresh water usage for the month is summarized in Table 2.1 below

**Table 2.1: June 2021 – Freshwater Usage (m<sup>3</sup>)**

| Water Location                                | Source Lake      | Jan          | Feb          | March        | April        | May          | June         | Total         |
|---|------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Camp  | Nemo             | 2,713        | 2,428        | 2,823        | 2,827        | 2,759        | 2,642        | 16,192        |
| Construction / Operation                      | Nemo             | 2,074        | 2,184        | 2,287        | 2,319        | 2,273        | 1,534        | 12,671        |
| Dust Suppression                              | Nemo / WTHR Pond | 0            | 0            | 0            | 0            | 0            | 4,830        | 4,830         |
| Explosive                                     | Mammoth Lake     | 0            | 0            | 0            | 0            | 0            | 0            | 0             |
| Drilling                                      | Proximal Sources | 0            | 0            | 0            | 0            | 0            | 0            | 0             |
| <b>Total Freshwater Usage (m<sup>3</sup>)</b> |                  | <b>4,787</b> | <b>4,612</b> | <b>5,109</b> | <b>5,146</b> | <b>5,032</b> | <b>9,006</b> | <b>33,693</b> |

### 2.2 LAKE WATER MONITORING

Lakes around the Whale Tail Project were not monitored during the month due to the lakes being frozen. Lakes are only monitored during open water conditions as per the Water Licence.

### 2.3 WHALE TAIL SOUTH CHANNEL

The Whale Tail South Channel was operational in June. An estimated 747,028 m<sup>3</sup> of water flowed from Whale Tail South Basin to Mammoth Lake.

### 2.4 WHALE TAIL DIKE SEEPAGE MONITORING

Seepage at the toe of Whale Tail dike was still observed during the month. Agnico continues to manage seepage water from WTD as part of the Whale Tail Attenuation Pond.

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

### 2.5 SEWAGE TREATMENT PLANT

Effluent from the sewage treatment plant is discharged to the Whale Tail Attenuation Pond. As per Water License Schedule I Sampling Station ST-WT-11, effluent is to be sampled four times per calendar year. Agnico is currently sampling the STP monthly and thus a sample was taken in June. A total of 2,615.7 m<sup>3</sup> was discharged during the month.

## **2.6 WHALE TAIL/IVR ATTENUATION PONDS**

Water from the Whale Tail and IVR Attenuation Ponds was discharged during the entire month of June in Mammoth Lake and/or Whale Tail South. Discharge in Mammoth Lake West Diffuser was from June 9 to 30, in Mammoth Lake East Diffuser from June 18 to 30, in Whale Tail South Temporary Diffusor from June 1 to 18, and Whale Tail South Summer Diffusor from June 6 to 17. Water was treated by the Water Treatment Plan before discharge. A total of 345,201 m<sup>3</sup> was discharged to Mammoth Lake and 236,995 m<sup>3</sup> in Whale Tail South.

As per Water License Part F Item 5, the effluent from this discharge shall not exceed the limits detailed in Table 2.6.1 to 2.6.4 below. No non-compliance observed during the month of June related to these discharges to the receiving environment. There were no exceedances of Water License or MDMER limits during the month.

**Table 2.6.1: Whale Tail Attenuation Pond Discharge to Mammoth Lake West Diffuser (ST-WT-2)**

| Parameter                            | Maximum Authorized<br>Concentration Grab<br>Sample | Maximum Authorized<br>Monthly Mean<br>Concentration | Unit        | Sample Date |           |            |            | Monthly<br>Average |
|--------------------------------------|--|---|-------------|-------------|-----------|------------|------------|--------------------|
|                                      |  |   |             | 10/6/2021   | 14/6/2021 | 21/6/2021  | 28/6/2021  |                    |
| Field Measured                       |  |   |             |             |           |            |            |                    |
| pH                                   | 6.0 - 9.5  | 6.0 - 9.5   | pH<br>units | 7.21        | 7.11      | 7.38       | 6.94       | 7.16               |
| Conventional Parameters              |  |   |             |             |           |            |            |                    |
| Total suspended solids               | 30   | 15  | mg/L        | 6           | 1         | 1          | 2          | 2.5                |
| Nutrients                            |  |   |             |             |           |            |            |                    |
| Total phosphorus                     | 0.6  | 0.3   | mg/L        | 0.0059      | 0.0039    | 0.0034     | <0.0010    | 0.0137             |
| Total ammonia (NH3-N)                | 32   | 16  | mg/L        | 0.72        | 0.64      | 0.57       | 0.7        | 0.6575             |
| Total Petroleum hydrocarbons (TPH) * |  |   |             |             |           |            |            |                    |
| F2 (C10-C16)                         | 6  | 3   | mg/L        | < 0.1       | < 0.1     | < 0.1      | < 0.1      | 0.05               |
| F3 (C16-C34)                         |  |   | mg/L        | < 0.2       | < 0.2     | < 0.2      | < 0.2      | 0.1                |
| F4 (C34-C50)                         |  |   | mg/L        | < 0.2       | < 0.2     | < 0.2      | < 0.2      | 0.1                |
| Total Metals                         |  |   |             |             |           |            |            |                    |
| Aluminum                             | 1  | 0.5   | mg/L        | 0.0372      | < 0.0030  | 0.0069     | < 0.0030   | 0.04118            |
| Arsenic                              | 0.2  | 0.1   | mg/L        | 0.00471     | 0.00296   | 0.00347    | 0.005      | 0.004035           |
| Cadmium                              | 0.004  | 0.002   | mg/L        | 0.000013    | 0.000015  | < 0.000010 | < 0.000010 | 0.0000095          |
| Chromium                             | 0.04   | 0.02  | mg/L        | < 0.0010    | < 0.0010  | < 0.0010   | < 0.0010   | 0.0005             |
| Copper                               | 0.2  | 0.1   | mg/L        | 0.00168     | 0.00116   | 0.00104    | 0.00149    | 0.00134            |
| Iron                                 | 2  | 1   | mg/L        | 0.4000      | 0.0885    | 0.2280     | 0.0459     | 0.1906             |
| Lead                                 | 0.1  | 0.05  | mg/L        | < 0.00020   | < 0.00020 | < 0.00020  | < 0.00020  | 0.0001             |
| Mercury                              | 0.008  | 0.004   | mg/L        | < 0.00001   | < 0.00001 | < 0.00001  | < 0.00001  | 0.000005           |
| Nickel                               | 0.5  | 0.25  | mg/L        | 0.0098      | 0.0114    | 0.0075     | 0.0077     | 0.0091             |
| Zinc                                 | 0.2  | 0.1   | mg/L        | 0.0070      | 0.0058    | 0.0050     | 0.0137     | 0.0079             |

\* Analysis for TPH was done as fractions by the lab. The fractions analyzed equal total petroleum hydrocarbon. All results were below detection limits.

**Table 2.6.2: Whale Tail Attenuation Pond Discharge to Mammoth Lake East Diffuser (ST-WT-2a)**

| Parameter                            | Maximum Authorized<br>Concentration Grab<br>Sample | Maximum Authorized<br>Monthly Mean<br>Concentration | Unit        | Sample Date |            |           | Monthly<br>Average |
|--------------------------------------|--|---|-------------|-------------|------------|-----------|--------------------|
|                                      |  |   |             | 19/6/2021   | 21/6/2021  | 28/6/2021 |                    |
| Field Measured                       |  |   |             |             |            |           |                    |
| pH                                   | 6.0 - 9.5  | 6.0 - 9.5   | pH<br>units | 7.15        | 7.56       | 6.80      | 7.17               |
| Conventional Parameters              |  |   |             |             |            |           |                    |
| Total suspended solids               | 30   | 15  | mg/L        | 1           | 1          | 3         | 1.7                |
| Nutrients                            |  |   |             |             |            |           |                    |
| Total phosphorus                     | 0.6  | 0.3   | mg/L        | 0.0038      | 0.004      | < 0.0010  | 0.0028             |
| Total ammonia (NH3-N)                | 32   | 16  | mg/L        | 0.60        | 0.70       | 0.69      | 0.66               |
| Total Petroleum hydrocarbons (TPH) * |  |   |             |             |            |           |                    |
| F2 (C10-C16)                         | 6  | 3   | mg/L        | < 0.1       | < 0.1      | < 0.1     | 0.05               |
| F3 (C16-C34)                         |  |   | mg/L        | < 0.2       | < 0.2      | < 0.2     | 0.1                |
| F4 (C34-C50)                         |  |   | mg/L        | < 0.2       | < 0.2      | < 0.2     | 0.1                |
| Total Metals                         |  |   |             |             |            |           |                    |
| Aluminum                             | 1  | 0.5   | mg/L        | 0.0054      | 0.0087     | < 0.0030  | 0.0052             |
| Arsenic                              | 0.2  | 0.1   | mg/L        | 0.00318     | 0.00358    | 0.00520   | 0.003987           |
| Cadmium                              | 0.004  | 0.002   | mg/L        | < 0.000010  | < 0.000010 | 0.000011  | 0.000007           |
| Chromium                             | 0.04   | 0.02  | mg/L        | < 0.0010    | < 0.0010   | < 0.0010  | 0.0005             |
| Copper                               | 0.2  | 0.1   | mg/L        | 0.00145     | 0.00084    | 0.00238   | 0.001557           |
| Iron                                 | 2  | 1   | mg/L        | 0.1880      | 0.2300     | 0.0509    | 0.1563             |
| Lead                                 | 0.1  | 0.05  | mg/L        | < 0.00020   | < 0.00020  | < 0.00020 | 0.0001             |
| Mercury                              | 0.008  | 0.004   | mg/L        | < 0.00001   | < 0.00001  | < 0.00001 | 0.000005           |
| Nickel                               | 0.5  | 0.25  | mg/L        | 0.0080      | 0.0075     | 0.0075    | 0.007667           |
| Zinc                                 | 0.2  | 0.1   | mg/L        | 0.0063      | 0.0078     | 0.0280    | 0.014033           |

\* Analysis for TPH was done as fractions by the lab. The fractions analyzed equal total petroleum hydrocarbon. All results were below detection limits.

**Table 2.6.3: Whale Tail Attenuation Pond Discharge to Whale Tail South Permanent Diffuser (ST-WT-24)**

| Parameter                            | Maximum Authorized<br>Concentration Grab Sample | Maximum Authorized Monthly<br>Mean Concentration | Unit     | Sample Date |           | Monthly<br>Average |
|--------------------------------------|---|--|----------|-------------|-----------|--------------------|
|                                      |   |  |          | 7/6/2021    | 14/6/2021 |                    |
| Field Measured                       |   |  |          |             |           |                    |
| pH                                   | 6.0 - 9.5                                       | 6.0 - 9.5  | pH units | 7.08        | 7.13      | 7.11               |
| Conventional Parameters              |   |  |          |             |           |                    |
| Total suspended solids               | 30  | 15   | mg/L     | 5           | <1        | 2.75               |
| Nutrients                            |   |  |          |             |           |                    |
| Total phosphorus                     | 0.6   | 0.3  | mg/L     | 0.0024      | 0.0042    | 0.0033             |
| Total ammonia (NH3-N)                | 32  | 16   | mg/L     | 1.4         | 0.65      | 1.025              |
| Total Petroleum hydrocarbons (TPH) * |   |  |          |             |           |                    |
| F2 (C10-C16)                         | 6   | 3  | mg/L     | < 0.1       | < 0.1     | 0.05               |
| F3 (C16-C34)                         |   |  | mg/L     | < 0.2       | < 0.2     | 0.1                |
| F4 (C34-C50)                         |   |  | mg/L     | < 0.2       | < 0.2     | 0.1                |
| Total Metals                         |   |  |          |             |           |                    |
| Aluminum                             | 1   | 0.5  | mg/L     | 0.1070      | 0.0118    | 0.0594             |
| Arsenic                              | 0.2   | 0.1  | mg/L     | 0.00762     | 0.00335   | 0.005485           |
| Cadmium                              | 0.004   | 0.002  | mg/L     | 0.000012    | 0.000014  | 0.000013           |
| Chromium                             | 0.04  | 0.02   | mg/L     | 0.0023      | <0.0010   | 0.0014             |
| Copper                               | 0.2   | 0.1  | mg/L     | 0.00223     | 0.00078   | 0.001505           |
| Iron                                 | 2   | 1  | mg/L     | 0.524       | 0.181     | 0.3525             |
| Lead                                 | 0.1   | 0.05   | mg/L     | 0.0002      | < 0.0002  | 0.00015            |
| Mercury                              | 0.008   | 0.004  | mg/L     | < 0.00001   | < 0.00001 | 0.000005           |
| Nickel                               | 0.5   | 0.25   | mg/L     | 0.0107      | 0.0107    | 0.0107             |
| Zinc                                 | 0.2   | 0.1  | mg/L     | 0.0091      | 0.0074    | 0.00825            |

\* Analysis for TPH was done as fractions by the lab. The fractions analyzed equal total petroleum hydrocarbon. All results were below detection limits.



**Table 2.6.4: Whale Tail Attenuation Pond Discharge to Whale Tail South Temporary Diffuser (ST-WT-24a)**

| Parameter                            | Maximum Authorized<br>Concentration Grab Sample | Maximum Authorized Monthly<br>Mean Concentration | Unit     | Sample Date | Monthly<br>Average |
|--------------------------------------|---|--|----------|-------------|--------------------|
|                                      |   |  |          | 7/6/2021    |                    |
| Field Measured                       |   |  |          |             |                    |
| pH                                   | 6.0 - 9.5                                       | 6.0 - 9.5  | pH units | 7.16        | 7.16               |
| Conventional Parameters              |   |  |          |             |                    |
| Total suspended solids               | 30  | 15   | mg/L     | 1           | 1                  |
| Nutrients                            |   |  |          |             |                    |
| Total phosphorus                     | 0.6   | 0.3  | mg/L     | <0.0010     | 0.0005             |
| Total ammonia (NH3-N)                | 32  | 16   | mg/L     | 1.3         | 1.3                |
| Total Petroleum hydrocarbons (TPH) * |   |  |          |             |                    |
| F2 (C10-C16)                         | 6   | 3  | mg/L     | < 0.1       | 0.05               |
| F3 (C16-C34)                         |   |  | mg/L     | < 0.2       | 0.1                |
| F4 (C34-C50)                         |   |  | mg/L     | < 0.2       | 0.1                |
| Total Metals                         |   |  |          |             |                    |
| Aluminum                             | 1   | 0.5  | mg/L     | 0.0117      | 0.0117             |
| Arsenic                              | 0.2   | 0.1  | mg/L     | 0.00538     | 0.00538            |
| Cadmium                              | 0.004   | 0.002  | mg/L     | 0.000012    | 0.000012           |
| Chromium                             | 0.04  | 0.02   | mg/L     | <0.001      | 0.0005             |
| Copper                               | 0.2   | 0.1  | mg/L     | 0.00226     | 0.00226            |
| Iron                                 | 2   | 1  | mg/L     | 0.168       | 0.168              |
| Lead                                 | 0.1   | 0.05   | mg/L     | <0.0002     | 0.0001             |
| Mercury                              | 0.008   | 0.004  | mg/L     | <0.00001    | 0.000005           |
| Nickel                               | 0.5   | 0.25   | mg/L     | 0.0099      | 0.0099             |
| Zinc                                 | 0.2   | 0.1  | mg/L     | <0.005      | 0.0025             |

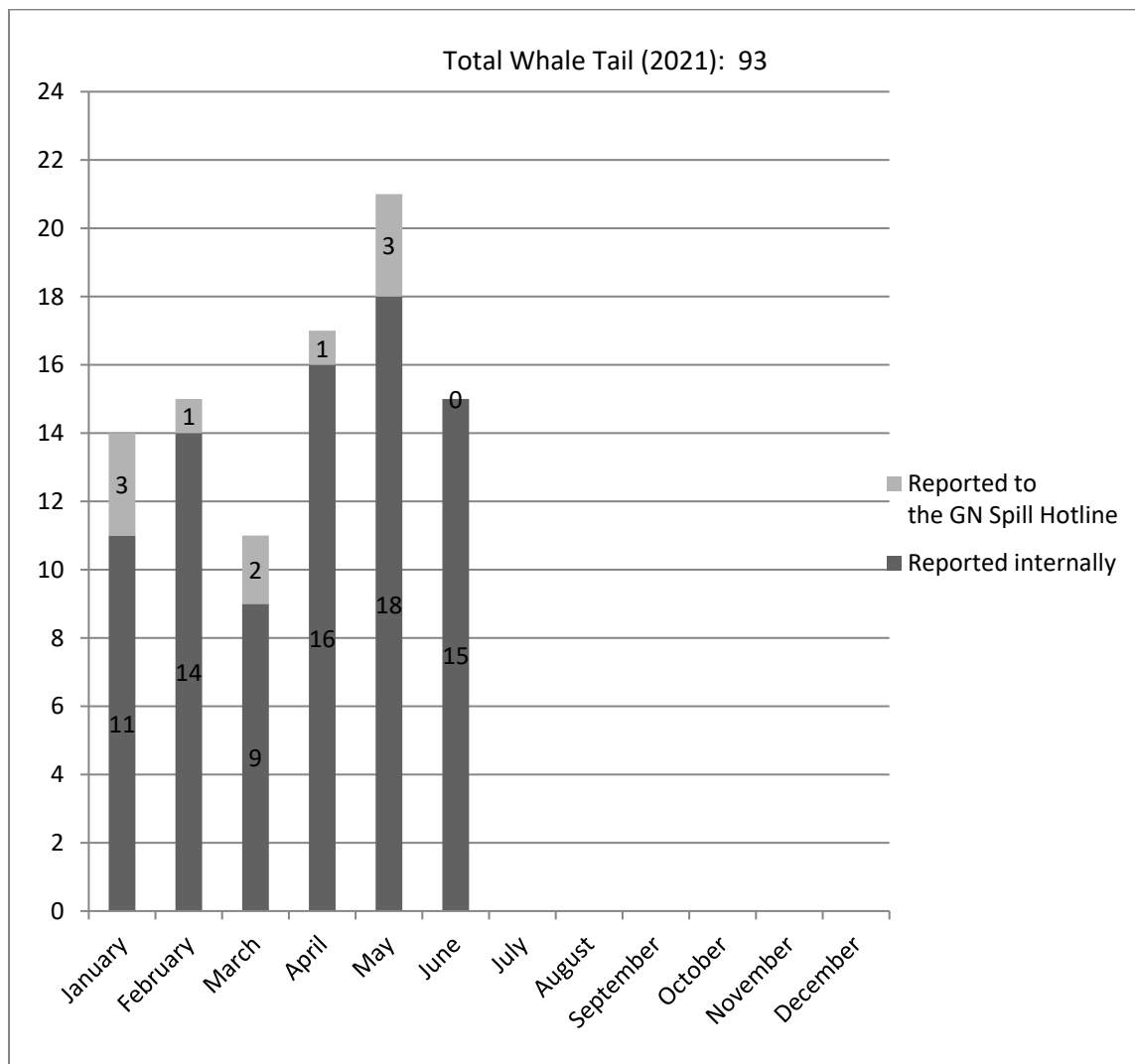
\* Analysis for TPH was done as fractions by the lab. The fractions analyzed equal total petroleum hydrocarbon. All results were below detection limits.

### SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2021 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for June.

Fifteen (15) spills occurred on site during the month with none (0) reported to regulators. 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 2021 Reported and Non-Reported Spills**



**Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, June 2021**

| Date of Spill | Hazardous Material   | Qty | Units (L / Kg) | Location                    | Cause of spill                     | Clean-up action taken   |
|---------------|----------------------|-----|----------------|-----------------------------|------------------------------------|---|
| 6/5/2021      | Hydraulic Oil        | 60  | L              | IVR PIT 5130MSI36           | Hydraulic hose failure             | Equipment was turned off. Contaminated material was removed and adequately disposed of in the yellow bin.     |
| 6/5/2021      | Hydraulic Oil        | 45  | L              | IVR Pit                     | Hydraulic hose failure             | Contaminated soil picked up and disposed of in the yellow bin.  |
| 6/6/2021      | Power Steering Fluid | 2   | L              | Environment Office Parking  | Powersteering Hose failure         | Clean up area with shovel and dispose of the contaminated material in the appropriate bin.                    |
| 6/6/2021      | Hydraulic Oil        | 25  | L              | Phase 1                     | Hydraulic hose failure             | Contaminated soil picked up and disposed in the yellow bin.   |
| 6/12/2021     | Waste Oil            | 20  | L              | Hazmat Area                 | Puncture                           | The contaminated soil was collected and disposed properly in the yellow bin.                                  |
| 6/12/2021     | Hydraulic Oil        | 60  | L              | Pad B                       | Hydraulic hose failure             | Equipment was turned off. Contaminated material was removed and adequately disposed of in the yellow bin.     |
| 6/12/2021     | Transmission Oil     | 40  | L              | WTHR KM 148                 | Operator hit the transfer case cap | Put some spill pads on the top of the spill. Contaminated material was removed and adequately disposed of.    |
| 6/24/2021     | Diesel               | 15  | L              | Truck parking               | Equipment failure                  | Contaminated material was removed and adequately disposed of in the yellow bin.                               |
| 6/24/2021     | Hydraulic Oil        | 60  | L              | Pad Q near Sana shop        | Hydraulic hose failure             | Absorbent pads were put in place. Contaminated soil was removed and adequately disposed of in the yellow bin. |
| 6/25/2021     | Coolant              | 55  | L              | Whale Tail WRSF             | Coolant hose failure.              | Contaminated soil was removed and adequately disposed of in the yellow bin.                                   |
| 06/26/2021    | Hydraulic Oil        | 85  | L              | IVR pit, Pattern 5130MSI34. | Hydraulic hose failure             | Contaminated soil was removed and adequately disposed of in the yellow bin                                    |
| 06/26/2021    | Hydraulic Oil        | 10  | L              | Pattern 5067MSK07           | Hydraulic hose failure             | Absorbent pads were put in place. Contaminated soil was removed and adequately disposed of                    |
| 06/28/2021    | Hydraulic Oil        | 70  | L              | Pattern 5123MSI19 in IVR    | Hydraulic hose failure             | Absorbent pads were put in place. Contaminated soil was removed and adequately disposed of                    |
| 06/30/2021    | Diesel               | 20  | L              | Stand by parking lot.       | Fuel cap was broken.               | Contaminated soil was removed and adequately disposed of  |

|            |           |    |   |                 |   |   |
|------------|-----------|----|---|-----------------|---|---|
| 06/30/2021 | Waste Oil | 10 | L | Behind U/G shop | O-ring failed on waste oil tote causing spill inside truck and ran down the door seal when truck was parked | Absorbent pads were put in place. Contaminated soil was removed and adequately disposed of in the contaminated soil bin |
|------------|-----------|----|---|-----------------|---|---|