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July 30, 2021

Licensing
Nunavut Water Board
P.O. Box 119
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Re: June 2021 – Monthly Monitoring Report for Water Licence 2AM-DOH1335

This report is comprised of the monitoring requirements set out in Part I and Schedule I of water licence 2AM-DOH1335 Amendment 2 (the licence), and additional requirements from CIRNAC.

On February 2, 2021 TMAC was purchased by Agnico Eagle Mines (Agnico Eagle) but TMAC continues to exist as a legal entity and is now a wholly owned subsidiary of Agnico Eagle. All rights, obligations, liabilities of TMAC continue to reside with TMAC until or if an amalgamation with Agnico Eagle occurs later in 2021.

During the subject period of this report, the focus of activities at Doris was underground mining, ore processing, water management and environmental compliance.

Dewatering of the Tailings Impoundment Area (TIA) and the Doris underground workings through the Robert's Bay Discharge System continued in June. Dewatering of the Doris underground workings through the mill tailings system to the TIA also continued this month.

In February, Agnico made the decision to pause mining activities at Madrid North to allow further evaluation of the mine plan for this area and focus on activities at Doris. Underground mining activities at the Madrid North Portal were suspended and remain inactive at this time.

Sampling locations monitored under this licence (seasonally or when facilities are operational) are provided in Figure 6 through Figure 8 at the end of this report.

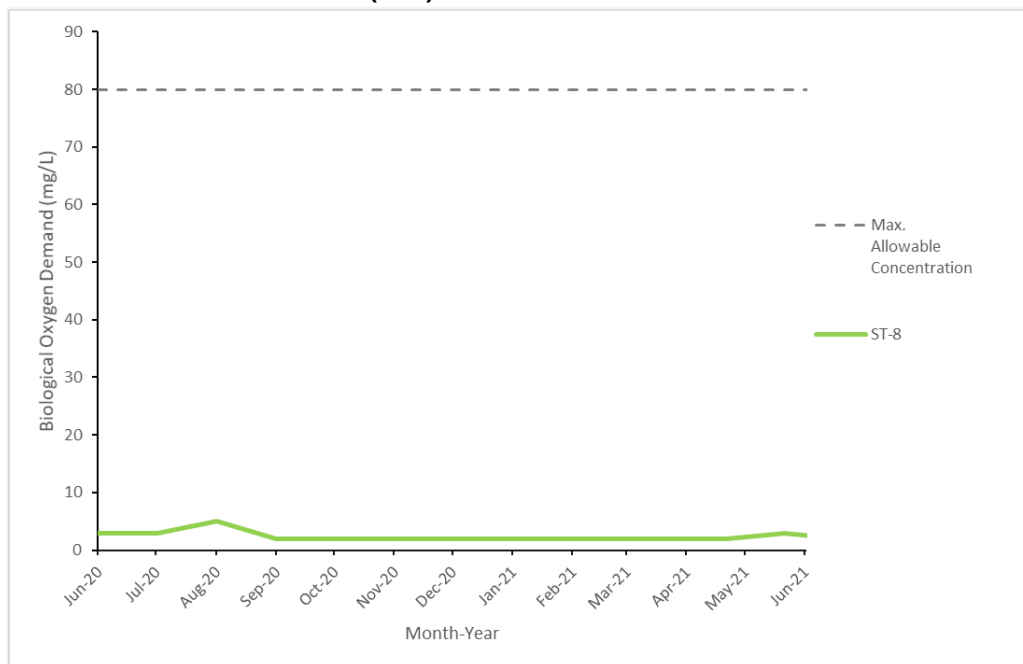
Site Wide Water Quality Monitoring Program (Part I Item 3 and Schedule I)

Water quality sampling was conducted in June at monitoring stations identified in Schedule I of the licence (ST-1 through ST-13, TL-1 through TL-12 and MMS-1 through MMS-10). Water quality samples were not collected for monitoring stations that were inactive during the month being reported (e.g., facilities that had not yet been constructed, were frozen during the month, or were not operationally active).

All parameters were compared to the applicable effluent quality limits outlined in Part D and Part F of the licence. No exceedances of effluent quality limits were observed in any samples collected this month. Results of all water quality monitoring are provided in Appendix A attached to this report.

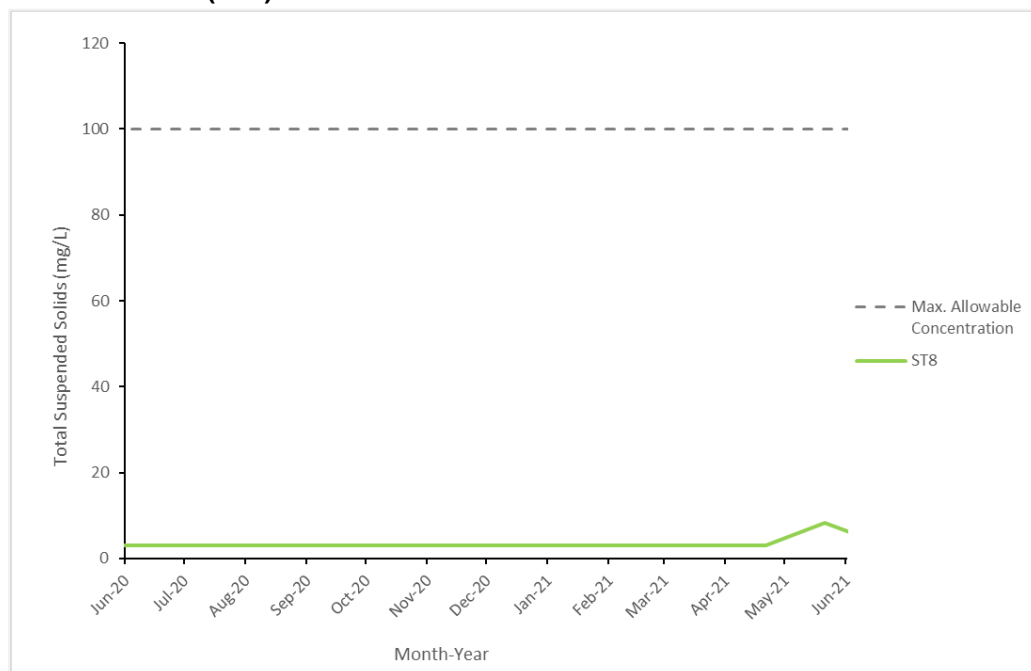
Figure 1 and 2 illustrates effluent quality characteristics for parameters of interest at select monitoring stations.

Figure 1. Biological Oxygen Demand Results Consistently Below Discharge Criteria for Wastewater Treatment Plant (ST8)



Note: Maximum Average Concentration as per Part F Item 4(b).

Figure 2. Total Suspended Solids Results Consistently Below Discharge Criteria for Wastewater Treatment Plant (ST8)



Note: Maximum Average Concentration as per Part F Item 4(b).

Flow and Volume Measurements (Part F, Part I and Schedule I)

Table 1. Effluent discharge, June 2021

Facility	Station Code	Discharge Volume (m ³)	Exceedances of Discharge Criteria	Discharge Location	Licence Reference
Doris Sedimentation Pond *	ST-1	2,480	N/A	Tailings Impoundment Area	Part F Item 17
Doris Contact Water Pond #1	ST-2	6	N/A	Tailings Impoundment Area	Part F Item 17, 18(a)
Non-Hazardous Landfill Sump	ST-3	0	0	Facility not constructed	Part F Item 18(a)
Landfarm Sump	ST-4	42	0	Tailings Impoundment Area	Part F Item 18(b)
Doris Plant Site Fuel Storage Area	ST-5	761	0	Tailings Impoundment Area	Part F Item 18(b)
Rob Bay Single 5ML Fuel Storage Area	ST-6a	947	0	Tundra Discharge 13W 432954 7563407	Part F Item 18(b)
Rob Bay Fuel Storage and Containment Berm	ST-6b	2	0	Tundra Discharge 13W 432878 7563130	Part F Item 18(b)
Doris Sewage Treatment Plant, Effluent	ST-8	1,032	0	Tundra Discharge 13W 432933 7559057	Part F Item 5(b-c)
Doris Sewage Treatment Plant, Sludge	N/A	30.5	N/A	Tailings Impoundment Area	Part I Item 5(f)
Doris Reagent and Cyanide Storage Facility Sump	ST-11	0	N/A	Tailings Impoundment Area	Part F Item 17
Doris Contact Water Pond #2	ST-13	0	N/A	Facility not constructed	Part F Item 17
Doris Mine Water Discharge	TL-12	53,308	N/A	Tailings Impoundment Area Roberts Bay	
Madrid North Contact Water Pond	MMS-1	940	0	Tailings Impoundment Area	Part F Item 17, 18(a)
Madrid South Primary Contact Water Pond	MMS-2	0	N/A	Facility not constructed	Part F Item 17, 18(a)
Madrid South Secondary Contact Water Pond	MMS-3	0	N/A	Facility not constructed	Part F Item 17, 18(a)
Madrid South Fuel Storage Facility	MMS-5	0	0	Facility not constructed	Part F Item 18(b)
Madrid North Connector	MMS-7	0	N/A	Facility not constructed	
Madrid North Fuel Storage Facility	MMS-8	0	0	Facility not constructed	Part F Item 18(b)
Madrid Mine Water Discharge	MMS-10	0	N/A	Tailings Impoundment Area	

Records of visual monitoring of discharge to tundra are maintained on file as per Part I Item 11.

* Note: Volume reported includes effluent transferred from the Doris Contact Water Pond #1, Landfarm Sump, Doris Plant Site Fuel Storage Area and Madrid North Contact Water Pond.

Table 2. Discharge from TIA to Roberts Bay, June 2021

Month	Number of days of discharge	Discharge Volume (m ³)	Exceedances of Discharge Criteria*
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	3	826	0
June	29	185,609	0
Annual Cumulative	32	186,435	0

* Discharge criteria as outlined in *Metal and Diamond Mining Effluent Regulations*.

Acute Lethality testing conducted as outlined in Part F Item 22 and Part I Item 14

Table 3. Water Usage, June 2021

Month	Windy Lake (ST-7A)			Doris Lake (ST-7)					Total Usage
	Domestic Water*	Industrial**	Winter Track	Domestic Water*	Surface Exploration	Industrial Usage**	Dust Suppression	Winter Track	
January	964	224	14	0	0	0	0	1	1,416
February	878	236	142	0	0	0	0	15	1,271
March	1,100	135	28	0	0	73	0	1,738	3,074
April	1,099	156	0	0	0	80	0	345	1,680
May	1,069	42	0	0	0	127	109	96	1,443
June	1,084	50	0	0	0	44	328	0	1,506
Annual Total	6,194	843	184	0	0	324	437	2,195	10,177
Annual Allowance	43,800					1,930,000			2,033,800

* As permitted by water licences 2BE-HOP1222 and 2AM-DOH1335 Part E Item 1 and Part I Item 5(a)(b)

** Includes industrial uses such as underground drilling, core processing, milling, concrete batching, etc.

Table 4. Volume of Reclaim Water from the TIA for Process Water, June 2021

Month	Reclaim Water (m³) *
January	85,079
February	77,385
March	76,663
April	78,336
May	74,222
June	57,629
Annual Cumulative	449,314

* As per Part E Item 5 and Part I Item 5(c)
Numbers rounded to the nearest cubic meter.

Table 5. Doris Waste Rock and Ore Volumes, June 2021

Month	Waste Rock Management					Underground Void Space			Ore Processing and Tailings Management		
	Produced from Mining Activity (tonnes)	Backfilled Directly to Mine (tonnes)	Returned Underground from Temporary Waste Rock Pile* (tonnes)	Moved to Temporary Waste Rock Pile (tonnes)*	Cumulative on Temporary Waste Rock Pile (tonnes)*	Volume Created from Mining Activities (tonnes)	Cumulative Volume Available for Backfill (tonnes)	Cumulative Volume Available for Backfill (m³)	Quantity of Ore Processed** (tonnes)	Total Dry Tailings Placed in TIA** (tonnes)	Total Dry Detoxified Tailings Placed Underground** (tonnes)
December Balance	-	-	-	-	647,948	-	1,487,357	700,312	-	-	-
January	11,573	13,297	3,000	-1,724	643,224	4,636	1,569,370	674,455	34,755	33,793	962
February	26,063	15,016	0	11,047	654,271	17,793	1,551,577	680,810	22,027	21,124	1,389
March	19,810	12,823	0	6,987	661,258	18,514	1,242,762	687,422	17,034	16,321	771
April	19,900	6,038	0	13,862	675,120	35,530	1,568,592	700,111	38,540	37,303	1,348
May	17,662	17,500	0	162	675,282	12,572	1,581,164	704,601	41,577	40,020	1,444
June	21,128	19,332	7,135	1,796	669,943	-4,752	1,576,412	705,452	15,058	14,514	554
Cumulative Total	116,136	84,006	10,135	32,130		84,293			168,991	163,075	6,468

* As per Part I Item 5(d)(e)

** As per Part I Item 6

Note: Void space created from mining activities is determined as the sum of the initial void space as calculated in March 2017 and void space created each month from mining activities. A negative volume of void space created in a month indicates that a higher volume of waste rock and detoxified tailings was returned underground compared to the volume of void space created from new mining activities.

Table 6. Madrid North Waste Rock and Ore Volumes, June 2021

Month	Waste Rock Management						Underground Void Space			Ore Produced
	Produced from Mining Activity (tonnes)	Backfilled Directly to Underground Mine (tonnes)	Returned Underground from Temporary Waste Rock Pile* (tonnes)	Moved to Temporary Waste Rock Pile (tonnes)*	Moved to Naartok East Crown Pillar Trench for Backfill (tonnes)*	Cumulative on Temporary Waste Rock Pile (tonnes)*	Volume Created from Mining Activities (tonnes)	Cumulative Volume Available for Backfill (tonnes)	Cumulative Volume Available for Backfill (m³)	Quantity of Ore Produced** (tonnes)
December Balance	-	-	-	-	-	350,426	-	-	-	-
January	2,369	0	0	0	2,369	348,057	-254	360,939	128,907	0
February	1,313	0	0	0	1,313	346,744	-141	360,545	128,766	0
March	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0
Cumulative Total	3,682	0	0	0	3,682		-395			0

* As per Part I Item 5(d)(e)

** As per Part I Item 6

Waste rock produced in January and February 2021 was removed from the underground decline and placed for backfill into the Naartok East Crown Pillar Recovery Trench.

Note: Void space created from mining activities is determined as the sum of the initial void space as calculated in December 2020 and void space created each month from mining activities. A negative volume of void space created in a month indicates that a higher volume of waste rock was returned underground or backfilled in the Naartok East Crown Pillar trench compared to the volume of void space created from new mining activities.

Table 7. Doris Lake Water Level (ST-12), June 2021

Month	Minimum Water Level (masl)	Maximum Water Level (masl)	Mean Water Level (masl)	Monthly Water Level Variation (masl)*	Comparison of Mean Water Level from Month to Month (masl)^
January	21.785	21.810	21.798	-0.009	-0.004
February	21.785	21.807	21.795	0.022	-0.003
March	21.769	21.797	21.783	0.028	-0.012
April	21.767	21.788	21.775	0.021	-0.008
May	21.750	21.774	21.764	0.024	-0.011
June	21.766	22.356	22.082	0.590	0.318

* Monthly Water Level Variation is calculated as the difference between the Maximum Water Level and the Minimum Water Level measured during the month.

^ Comparison of the change in water level from month to month. This value is calculated by subtracting the Mean Water Level of the current month from the Mean Water Level of the previous month (e.g. February Mean Water level - January Mean Water level). A positive value from this calculation indicates a rise in water level since the previous month; a negative value from this calculation indicates a drop in water level since the previous month.

Waste Management (Part F Item 10 and 11)

In June, TMAC shipped hazardous waste offsite via empty cargo aircraft. Table 8 below summarizes the type and volume of waste shipped offsite during this month. Twelve totes of waste oil were received by Buffalo Airways Ltd. in Yellowknife for recycling in waste oil heaters at that facility. All other waste was received by KBL Environmental in Yellowknife for final remediation and/or disposal.

Table 8. Waste Backhaul Summary, June 2021

Waste Type Shipped	Volume Shipped* (m ³)
Waste Leachate - Mix	2
Used Glycol	3
Hydraulic Hoses	2
Used Oil Filters	1
Used Oil	12

* Numbers rounded to the nearest cubic meter.

Summary of Assessments of Water Balance and Water Quality Model (Part F Item 24 and Part I Item 12 c)

Average monthly water quality, hydrologic, and climatic monitoring data were collected while in operations during June. Data will contribute to the assessment of the water and load balance model and will be compared to the predicted water quality and elevation within the TIA and will be reported in the annual report for 2021.

Thermal Monitoring (Part I Items 7, 8 and Schedule I)

Thermal monitoring undertaken as per Part I Items 7, 8 and Schedule I is reported in the annual Geotechnical Report.

Site Freshet and Precipitation Conditions (Part I Item 12(d))

Visual monitoring was conducted at the Diversion Berm this month. No issues were identified at the Diversion Berm and associated check dam in June. Photos of this infrastructure are provided in Figure 3 below.

Inspections were completed of site culverts throughout the month of June. No issues were identified with these water management structures. Figure 4 and 5 below shows the upstream and downstream conditions of culverts located at the Marine Outfall Berm Access Road and the Madrid All-Weather Road.

Figure 3. Diversion berm during June 2021



Figure 4. Culvert at Marine Outfall Berm Access Road upstream (right) and downstream (left) June 2021



Figure 5. Culvert at Madrid All-Madrid All-Weather Road upstream (right and downstream (left) June 2021



Incident Reporting

There were two reportable spills pertaining to this licence that occurred this month.

Spill 2021-252

On June 18, 2021 contact water seepage was identified emanating from the toe of the Madrid North Contact Water Pond. The seepage was identified at the same location as it had been identified in June 2020. A second seepage location was also identified in June 2021. Contact water released from the pond was contained by a road to the east and laydown pad to the north. No contact water was released to any water body (nearest water body is Patch Lake located 800m east of the CWP).

A small sump pump was immediately installed at the toe of the berm to pump water back into the pond and minimize the volume of the release. Water trucks were used to transfer contact water from the pond to the Tailings Impoundment Area.

The initial reported estimate of quantity of water released on June 18th was unknown but believed to be more than 2000L. Based on survey of the water level elevation on June 14th prior to the release, the estimated quantity released is 350 m³.

The investigation identified the cause of the seepage to be the failure of the remedial works conducted in 2020 to fully seal the bedrock cracks/fissures in the foundation of the CWP. In addition to this, the water level within the pond was above the maximum water level elevation defined for the pond based on the 2020 investigation.

Water Quality Results

Water quality samples were collected of the seepage (MMS-1 Outside; MMS-1 Outside 2) and from within the CWP (MMS-1 Inside) at the time of the event. Results of these sample are presented in Table 9 below. A sample had been collected for MMS-1 on June 14th. Results of this sample are included in Table 9 for reference.

Results of all samples were below the Maximum Concentration outlined in Part F Item 18 (a) of Water Licence 2AM-DOH1335 for discharge to tundra from this facility.

Table 9: Water quality results 2AM-DOH1335 Part F Item 18 (a)

		MMS-1	MMS-1 INSIDE	MMS1- OUTSIDE	MMS1- OUTSIDE 2	2AM-DOH1335 Part F Item 18 (a)	
		YL2100560-001	YL2100581-003	YL2100581-001	YL2100581-002	Maximum Monthly Mean Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
		14-Jun-2021	18-Jun-2021	18-Jun-2021	18-Jun-2021		
Parameter	Units	Prior to Release	Outside Pond at Time of Release	Outside Pond at Time of Release	Inside Pond at Time of Release		
pH	pH Units	7.53	7.75	7.84	7.98	6.0 – 9.5	6.0 – 9.5
Total Suspended Solids	mg/L	13.6	11.4	3.0	20.0	50	100
Arsenic (As)-Total	mg/L	0.222	0.229	0.120	0.257	0.5	1
Nickel (Ni)-Total	mg/L	0.0165	0.0146	0.00456	0.0159	0.5	1
Oil & Grease	mg/L	<5.0	<5.0	<5.0	<5.0	5	10
Oil & Grease (Visible Sheen)		Absent	Absent	Absent	Absent	No Visible Sheen	No Visible Sheen

Mitigation Measures

Additional remedial works to seal the bedrock fractures within the base of the pond are not anticipated to prevent future seepage events. As an alternative, a water management structure

will be installed at the downstream toe prior to freshet 2022 to capture any seepage and return it to the pond. This change to the water management strategy will be incorporated into an update of the Hope Bay Water Management Plan and Issued for Construction drawings will be submitted to the Nunavut Water Board for review at least sixty days prior to construction as outlined in Part D Item 1 (a) of Water Licence 2AM-DOH1335.

A lack of visual marker to track water level within the pond was identified as a contributing factor in this event. To mitigate this issue, a water level gauge and signage will be installed at the CWP to identify the full supply level to allow for quick visual assessment of water level allowing operators to quickly respond if the water level is approaching the maximum allowable water elevation. Daily inspections will be conducted leading up to and during freshet to assess water level and initiate water management as needed.

Rapid melting of the snow accumulation within the pond and a lack of manpower availability at the time of the event was also identified as a contributing factor in this event. Additional resources will be planned for future freshet water management activities to ensure adequate support is available to manage water within this facility.

Spill 2021-269

On June 27, a release of treated effluent occurred to the tundra from the on-land section of the ocean discharge pipeline. Electricians working in the area identified that a leak was occurring from the flange of one vacuum break on the pipeline. Treated effluent from the 10" ocean discharge pipeline was leaking from this flange to the surrounding tundra. The effluent soaked immediately into the tundra and could not be recovered. The quantity of effluent released is unknown but is estimated to have exceeded 100L.

As no allowable discharge to tundra criteria exist for this effluent stream, an assessment of the impact of the spill was conducted by comparing the results to allowable criteria outlined in Part F Item 18 (a) of Water Licence 2AM-DOH1335. Although no effluent was discharged to a water body as a result of this event, the results of this sample were also compared to the allowable criteria outlined in Schedule 4 of the *Metal and Diamond Mining Effluent Regulations SOR/2002-222* (MDMER).

Results of the sample collected were below the allowable limits outlined in Part F Item 18 (a) of 2AM-DOH1335 licence and Schedule 4 of the MDMER. Chloride and salinity levels of the sample (3530 mg/L and 6.5ppt respectively) indicate that some minor impact to vegetation in a localized area (45 m²) surrounding the vacuum break may occur. No impacts to vegetation have been identified to date, however this area will continue to be visually monitored for signs of vegetation stress/impact.

The bolts securing the flange were tightened to stop the leak and flanges on the other two vacuum breaks were inspected to confirm no leaks were occurring.

The incident investigation identified that a preventative maintenance schedule to retorque the bolts on these flanges during the spring/fall temperature changes had not been implemented. In addition to this, no routine visual inspection of these flanges was being conducted to assess for leaks. To prevent a reoccurrence of this event, a daily visual inspection of the vacuum breaks by the Water Treatment Plant operator has now been implemented. A preventative maintenance schedule to perform retorque of bolts for all flanges along the pipeline has also been scheduled to occur twice annually (spring and fall) and will begin in fall 2021.

Should there be any questions regarding this monthly report, please contact me at sarah.warnock@agnicoeagle.com.

Yours sincerely,



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Cc:

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Figure 6. 2AM-DOH1335 SNP Monitoring Locations



Figure 7. 2AM-DOH1335 SNP Monitoring Locations



Figure 8. 2AM-DOH1335 SNP Monitoring Locations

