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**February 28, 2023**

Licensing  
Nunavut Water Board  
P.O. Box 119  
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**Re: January 2023 – Monthly Monitoring Report for Water License 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 license), and additional requirements from CIRNAC.

In March 2022, Agnico made the decision to maintain the suspension of production activities at the Doris Mine site and Madrid North Portal to dedicate the infrastructure of the Hope Bay site to exploration activities. As such, the mill operation will remain suspended and underground activities will focus on exploration development. As the mill will not be operational for the foreseeable future, Table 4: Volume of Reclaim Water from the TIA for Process Water has been removed from this report and from future reports until such a time as reclaim water is used on site.

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

Dewatering of the Doris underground workings was directed to the temporary water-filled portable dam in the TIA throughout the month of December.

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.

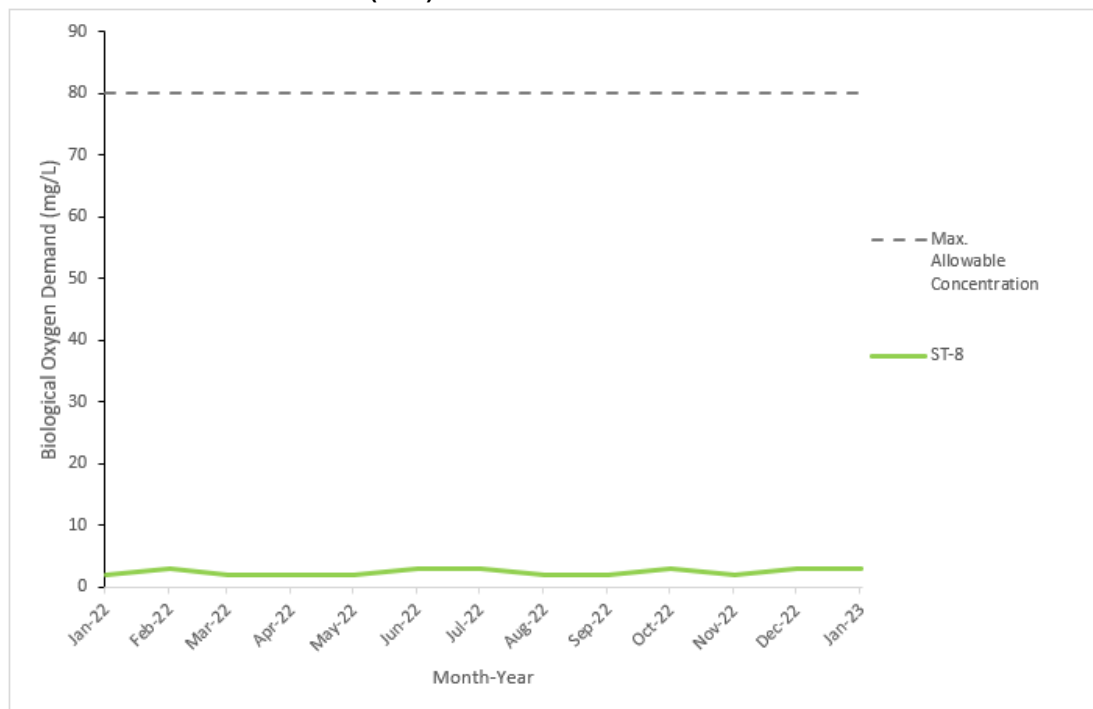
**Site Wide Water Quality Monitoring Program (Part I Item 3 and Schedule I)**

Water quality sampling was conducted in October 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.

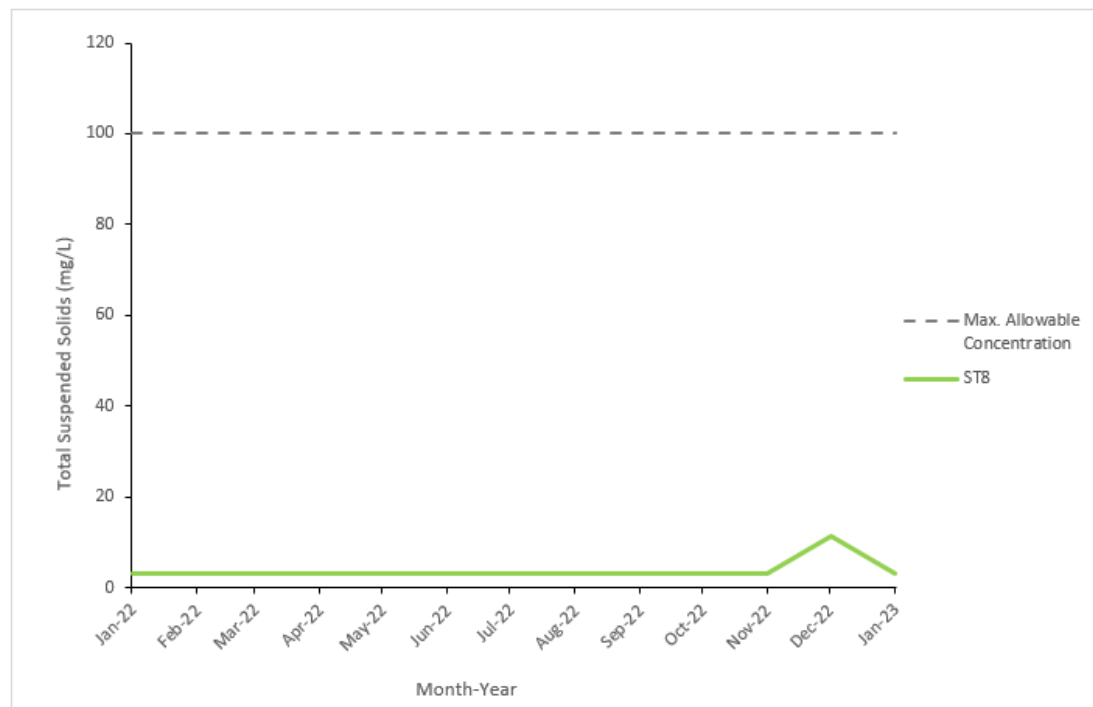
Figure 1 and 2 illustrates effluent quality characteristics for parameters of interest at select monitoring stations.

**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, January 2023

Facility	Station Code	Discharge Volume (m <sup>3</sup> )	Exceedances of Discharge Criteria	Discharge Location	Licence Reference
Doris Sedimentation Pond *	ST-1	0	N/A	Tailings Impoundment Area	Part F Item 17
Doris Contact Water Pond #1	ST-2	0	N/A	Doris sedimentation pond	Part F Item 17, 18(a)
Non-Hazardous Landfill Sump	ST-3	0	0	Facility not constructed	Part F Item 18(a)
Land farm Sump	ST-4	0	0	Tailings Impoundment Area	Part F Item 18(b)
Doris Plant Site Fuel Storage Area	ST-5	0	0	Tailings Impoundment Area	Part F Item 18(b)
Rob Bay Single 5ML Fuel Storage Area	ST-6a	0	0	Tundra Discharge 13W 432954 7563407	Part F Item 18(b)
Rob Bay Fuel Storage and Containment Berm	ST-6b	0	0	Tundra Discharge 13W 432878 7563130	Part F Item 18(b)
Doris Sewage Treatment Plant, Effluent	ST-8	594	0	Tundra Discharge 13W 432933 7559057	Part F Item 5(b-c)
Doris Sewage Treatment Plant, Sludge	N/A	22.8	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	46,014	N/A	Tailings Impoundment Area Roberts Bay	
Madrid North Contact Water Pond	MMS-1	0	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, January 2023**

Month	Number of days of discharge	Discharge Volume (m <sup>3</sup> )	Exceedances of Discharge Criteria*
January	0	0	0
<b>Annual Cumulative</b>	<b>0</b>	<b>0</b>	<b>0</b>

\* 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, January 2023**

Month	Windy Lake (ST-7A)				Patch Lake				Doris Lake (ST-7)				Total Usage
	Domestic Water*	Industrial**	Winter Track	Dust Suppression	Domestic Water*	Industrial Usage**	Dust Suppression	Winter Track	Domestic Water*	Industrial Usage**	Dust Suppression	Winter Track	
January	973	275	1,604	0	0	12	0	0	0	1303	0	690	3,267
<b>Annual Total</b>	973	275	1,604	0	0	12	0	0	0	1303	0	690	3,267
<b>Annual Allowance</b>	<b>43,800</b>									<b>1,930,000</b>			<b>2,033,800</b>

\* 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 5. Doris Waste Rock and Ore Volumes, January 2023

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)	Waste Hauled for Surface Construction from Surface Stockpile (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	-	-	-	-	-	723,872	-	1,700,749	751,239	-	-	-
January	10,557	0	0	0	10,557	752,418	10,557	1,717,119	852,580	0	0	0
Cumulative Total	10,557	0	0	0	10,557	752,418	10,557	1,717,119	852,580	0	0	0

\* 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, January 2023

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	-	-	-	-	-	0	-	-	-	-
January	0	0	0	0	0	0	0	0	0	0
Cumulative Total	0	0	0	0	0	0	0	0	0	0

\* 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 December 2021 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), January 2023**

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	21.979	22.043	22.043	0.064	0.030

\* 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 January, Agnico shipped no hazardous waste offsite. As a result, Table 8 has been removed from this month's report. Waste shipments are expected to proceed in February.

### **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 December. 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 2022.

### **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 January. Photos of this infrastructure are provided in Figure 3 below.

Inspections were suspended of site culverts throughout the month of December due to snow build up. Inspections are due to be resumed in freshet of 2023.



**Figure 3. Diversion berm during January 2023**



## **Incident Reporting**

Three incidents pertaining to this licence occurred this month.

**NU Spill #2023-003** - On January 4 2023, it was discovered that a sewage line froze below the Core Shack and approximately 0.1 m<sup>3</sup> of Sewage spilled to ground. (Coordinates: 68°13'60"N, 106°61'37"W).

Over the break in activity Dec 21, 2022 – January 4, 2023, a section of uninsulated line below the building froze resulting in a spill of approximately 0.1m<sup>3</sup> of sewage to the ground. While the line was heat traced this section lacked the insulation required to retain the heat and prevent the line from freezing, resulting in a break in the line, causing a spill.

### **Mitigation measures**

The vacuum truck was dispatched to clean the contaminated area and transport the spill to approved location in the TIA for disposal. Once area was clear repairs were completed, line integrity was confirmed, and insulation was installed. These measures were implemented to ensure that the line doesn't freeze again in the future and as such, preventing similar spills.

**NU Spill #2023-016:** - On January 16, 2023, a spill of approximately 500L of grey water occurred below the camp. The incident was noticed after an odour was noted inside the camp. The subsequent investigation revealed a pipe coming from the main camp kitchen area was leaking to the pad. The damage to the pipe was due to general wear and tear.

### **Mitigation measures**

The area surrounding the spill was secured and the pipe was repaired. The affected area surrounding the spill was then cleaned up and the contaminated material was appropriately disposed of by the waste management department.

Following the incident, a review of all the camp piping and pipe fixtures will be carried out in summer 2023 to reduce the risk of reoccurrence.

**NU SPIL #2023-021** - On January 22, 2023, at 2:00 am, a spill of approximately 300L of sewage occurred below the camp.

The required 24-hour period for reporting was exceeded due to an error with the time keeping. In the future, a record of the incident time will be kept with the supervisor as a reminder of the

delay. Furthermore, the importance of respecting the time-delay was reviewed with the supervisors.

The incident was noticed after an odour was reported inside the camp. The subsequent investigation revealed a pipe below the kitchen lift station had split open due to a broken support bracket. The damage to the bracket was due to general wear and tear.

### **Mitigation Measures**

The area surrounding the spill was secured and the pipe and the fitting were repaired. The affected area surrounding the spill was then cleaned up and the contaminated material was appropriately disposed of by the waste management department.

Following the incident, a review of all the camp piping and pipe fixtures will be carried out in summer 2023 to reduce the risk of reoccurrences.

Should there be any questions regarding this monthly report, please contact me at [jamie.power@agnicoeagle.com](mailto:jamie.power@agnicoeagle.com).

Yours sincerely,

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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

