



Water Licence 2AM-MRY1325 Monthly Report February 2025

March 30, 2025

Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, Nunavut XOB 1JO Resource Management Officer, CIRNAC Nunavut District, Nunavut Region P.O. Box 100 Igaluit, NU XOA 0H0

# RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report February 2025

The following is the monthly report for February 2025 as required under Part I, Item 21 of the Type 'A' Water Licence 2AM-MRY1325 (the Licence), which states:

"The Licensee shall submit to the Board, within thirty (30) days following the month being reported, a Monthly Monitoring Report. The Report shall include:

- a) All data and information required by this Part and generated by the Monitoring Program in the tables of Schedule I
- b) An assessment of data to identify areas of non-compliance with regulated discharge parameters referred to in Part F"

### **Monitoring Program**

Table 1.1 presents a list of samples/monitoring conducted in February under the Licence at sites with discharge/flowing water conditions and the details concerning the collected water quality samples, including sample dates and laboratory identification numbers. Analytical water quality testing results are presented in Table 2. Table 3.1 presents water volumes consumed for domestic and industrial water purposes as well as select volumes of effluent and waste discharged and/or disposed at the Mary River Mine Site and Milne Port during February 2025.

## **Monitoring Program Results**

Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Sewage Treatment Plant (STP) facilities. There were no exceedances of applicable water quality criteria observed at STP monitoring stations in February 2025. Due to frozen winter conditions, no other water samples were collected during the month of February.

Flow and Volume Measurements

Table 3.1 provides a breakdown of volume measurements for February 2025, as required by Part I, Item 9 of the Licence. There were no exceedances of the source-specific daily volume withdrawal limits in February 2025.





## Water Licence 2AM-MRY1325 Monthly Report

William Bowden

February 2025

We trust that the information provided in this monthly report is acceptable. If you have any questions regarding this report, please contact the undersigned.

Prepared by: Reviewed by:

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#### **Attachments**

Attachments - Table 1.1, Table 2, Table 3.1



# **Table 1.1: Monitoring Program Water Sampling Summary**

Location	Location Description	Sample Date	Sample Type	Lab Sample ID
MP-01	Sewage Treatment Facility	2025-02-04	Р	WT2502105-001
MP-01B	Sewage Treatment Facility	2025-02-04	Р	WT2502105-003
MS-01B	Sewage Treatment Facility	2025-02-04	Р	WT2502191-001

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken



		Location Name	MP-01			
		Sample Date & Time	2025-02-04			
	ALS L	aboratory Work Order	WT2502105			
		Sample Type	Р			
Analyte	Units	Criteria				
pH, Lab	pH units	6.0-9.5	7.57			
Total Suspended	mg/L	120	2.3			
Solids						
Total Dissolved	mg/L		889			
Solids	J.	-				
Turbidity	NTU	-	0.78			
Alkalinity, Total	mg/L	-	67.1			
Ammonia, Total (as	mg/L		0.0371			
N)		-				
Total Kjeldahl	mg/L		13.3			
Nitrogen		-				
Fecal Coliforms	CFU/100mL	10000	< 1			
BOD	mg/L	100	2			
Oil and Grease, Total	mg/L		< 5			
		-				
Visible Sheen	-	No Visible Sheen	No Visible Sheen			
Phosphorus, Nutrient	mg/L		5.83			
		-				

Notes: Highlight indicate result exceeded applicable criteria.

Sample Type:

P-Permitted

FD-Field Duplicate FB-Field Blank

TB-Trip Blank



		Location Name	MP-01B		
		Sample Date & Time	2025-02-04		
	ALS L	aboratory Work Order	WT2502105		
		Sample Type	Р		
Analyte	Units	Table 5 Criteria			
pH, Lab	pH units	6.0-9.5	8.07		
Total Suspended	mg/L	120	1.8		
Solids					
Total Dissolved	mg/L		474		
Solids		-			
Turbidity	NTU	-	0.35		
Alkalinity, Total	mg/L	-	95.2		
Ammonia, Total (as	mg/L		0.0193		
N)		-			
Total Kjeldahl	mg/L		5.38		
Nitrogen		-			
Fecal Coliforms	CFU/100mL	10000	29		
BOD	mg/L	100	< 2		
Oil and Grease, Total	mg/L	-	< 5		
Visible Sheen	-	No Visible Sheen	No Visible Sheen		
Phosphorus, Nutrient	mg/L	_	6.74		

Notes: Highlight indicate result exceeded applicable criteria.

Sample Type:

P-Permitted

FD-Field Duplicate FB-Field Blank

TB-Trip Blank



		Location Name			
		Sample Date & Time			
	ALS L	aboratory Work Order	WT2502191		
		Sample Type	Р		
Analyte	Units	Table 4 Criteria			
pH, Lab	pH units	6.0-9.5	7.81		
Total Suspended	mg/L	35	< 1		
Solids					
Total Dissolved	mg/L		776		
Solids		-			
Turbidity	NTU	-	0.17		
Alkalinity, Total	mg/L	-	100		
Ammonia, Total (as	mg/L	4.0	0.02		
N)					
Total Kjeldahl	mg/L		0.852		
Nitrogen		-			
Fecal Coliforms	CFU/100mL	1000	< 1		
BOD	mg/L	30	< 2		
Oil and Grease, Total			< 5		
	_	-			
Visible Sheen	-	No Visible Sheen	No Visible Sheen		
Phosphorus, Nutrient	mg/L	4	0.133		



Table 3.1: Flow and Volume Measurements - Part I Item 11 - February 2025

DATE	Camp Lake Freshwater for Domestic Use - Daily Water MS-MRY-1 (m <sup>3</sup> ) <sup>1</sup>	Camp Lake Freshwater for Industrial Use - Daily Water MS-MRY-1 (m³) <sup>12</sup>	Treated Sewage Effluent from MS-01 to Discharge Location #1 (m <sup>3</sup> )	Treated Sewage Effluent from MS-01B to Discharge Location #1 (m³)	Sewage Sludge Removed from Mine Site WWTPs to Incinerator or Disposal Offsite by Backhaul (m³)	Sewage Sludge/Off- Spec Effluent Removed from Mine Site WWTPs to PWSP at Mine Site (m³)	Sewage Sludge Removed from Lift Stations to PWSP at Mine Site (m³)	Km 32 Lake Milne Port Camp Daily Water Use for Domestic Purposes MP- MRY-3 (m³)	Km 32 Lake Milne Port Camp Daily Water Use for Industrial Purposes MP- MRY-3 (m³)	Treated Sewage Effluent from MP-01 to Milne Inlet (m³)	Effluent from	Sewage Sludge Removed from Milne Port WWTPs to Incinerator or Disposal Offsite by Backhaul (m³)	Sewage Sludge Removed from Lift Stations to PWSP at Milne Port (m <sup>3</sup> )	Sludge Removed from Milne Port WWTPs/WTPs to PWSP at Milne Port (m³)
1-Feb-25	106.9	3.2	0.0	117.6	0.9	0.0	0.0	41.9	0.0	15.0	24.7	0.1	0.0	0.0
2-Feb-25	94.5	3.2	0.0	101.0	0.9	0.0	0.0	55.7	2.0	19.0	21.9	0.1	0.0	0.0
3-Feb-25	94.1	3.2	0.0	97.1	0.9	0.0	0.0	48.8	0.0	23.0	27.9	0.1	0.0	0.0
4-Feb-25	118.4	3.2	0.0	100.3	0.9	0.0	0.0	41.0	0.0	14.0	22.0	0.0	0.0	0.0
5-Feb-25	109.9	3.2	0.0	114.6	1.0	0.0	0.0	41.3	0.0	19.0	24.7	0.1	0.0	0.0
6-Feb-25	101.3	3.2	0.0	103.2	0.9	0.0	0.0	43.1	0.0	15.0	27.5	0.1	0.0	0.0
7-Feb-25	82.6	3.2	0.0	84.2	0.4	0.0	0.0	50.3	0.0	16.0	16.2	0.1	0.0	0.0
8-Feb-25	99.6	3.2	0.0	99.6	0.9	0.0	0.0	35.8	0.0	15.0	21.2	0.1	0.0	5.0
9-Feb-25	105.3	3.2	0.0	94.5	0.9	0.0	0.0	46.7	0.0	15.0	17.1	0.1	0.0	0.0
10-Feb-25	89.4	15.7	0.0	92.4	0.9	0.0	0.0	46.6	22.0	19.0	26.3	0.1	0.0	0.0
11-Feb-25	114.0	3.2	0.0	96.3	0.4	0.0	0.0	44.7	0.0	23.0	31.1	0.0	0.0	0.0
12-Feb-25	105.0	3.2	0.0	103.1	0.9	0.0	0.0	31.7	0.0	17.0	12.7	0.1	0.0	0.0
13-Feb-25	128.5	3.2	0.0	102.4	0.9	0.0	0.0	39.4	0.0	14.0	10.1	0.1	0.0	0.0
14-Feb-25	136.3	3.2	0.0	123.6	1.3	0.0	0.0	63.9	0.0	19.0	40.2	0.1	0.0	0.0
15-Feb-25	108.0	3.2	0.0	134.7	0.9	0.0	0.0	39.8	0.0	15.0	27.8	0.1	0.0	1.5
16-Feb-25	119.4	19.6	0.0	119.5	0.9	0.0	0.0	47.3	0.0	14.0	32.8	0.1	0.0	0.0
17-Feb-25	81.4	3.2	0.0	112.3	0.4	0.0	0.0	62.0	0.0	19.0	22.9	0.0	0.0	0.0
18-Feb-25	100.3	3.2	0.0	90.9	0.9	0.0	0.0	40.8	0.0	18.0	23.9	0.1	0.0	0.0
19-Feb-25	130.1	3.2	0.0	116.6	0.9	0.0	0.0	50.1	0.0	18.0	20.4	0.0	0.0	0.0
20-Feb-25	103.3	3.2	0.0	95.2	0.4	0.0	10.0	39.6	0.0	18.0	13.4	0.0	0.0	0.0
21-Feb-25	88.5	20.1	0.0	124.8	0.4	0.0	0.0	55.5	0.0	20.0	27.5	0.1	0.0	0.0
22-Feb-25	85.5	14.4	0.0	108.0	0.9	0.0	0.0	37.1	0.0	19.0	20.8	0.0	0.0	0.0
23-Feb-25	95.2	17.0	0.0	95.4	0.9	0.0	0.0	42.6	0.0	17.0	19.2	0.0	0.0	0.0
24-Feb-25	104.4	24.0	0.0	96.2	0.9	0.0	0.0	43.5	0.0	18.0	17.2	0.1	0.0	0.0
25-Feb-25	96.0	19.1	0.0	95.3	0.9	0.0	0.0	40.1	0.0	20.0	17.4	0.0	0.0	0.0
26-Feb-25	107.0	15.8	0.0	94.2	0.4	15.0	0.0	47.1	0.0	17.0	20.2	0.1	0.0	2.0
27-Feb-25	103.7	16.7	0.0	106.0	0.4	15.0	0.0	40.8	0.0	16.0	15.8	0.0	0.0	0.0
28-Feb-25	111.6	13.1	0.0	105.1	0.9	0.0	0.0	46.9	0.0	20.0	16.0	0.1	0.0	0.0
Total	2,919.7	233.3	0.0	2,924.1	21.4	30.0	10.0	1,263.9	24.0	492.0	619.1	1.4	0.0	8.5

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

<sup>&</sup>lt;sup>1</sup> Tracking may be influenced by reported data to the Pi data system; variances between reported domestic and industrial values have potential to occur. However, total daily withdrawal is not influenced by the tracking methodology.

<sup>&</sup>lt;sup>2</sup> The daily water usage data for emulsion production (for blasting purposes) is unavailable, leading to the estimation of daily water consumption based on the total emulsion produced for the month. Additionally, daily water use totals are influenced by regularly monitored industrial activities.