



Water Licence 2AM-MRY1325 Monthly Report October 2022

November 29, 2022

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 Iqaluit, NU XOA 0H0

RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report October 2022

The following is the monthly report for October 2022 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

During the month of October 2022, water samples were collected as part of the Surveillance Network Program (SNP).

Table 1.1 presents a list of samples/monitoring required under the Licence and the details concerning which water quality samples were collected along with sample dates and laboratory identification numbers, as appropriate. Analytical water quality testing results are presented in Tables 2.1 through 2.5. 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 October 2022.

Monitoring Program Results

Water Sampling and Analysis Results

Tables 2.1 through 2.5 provide the analytical results related to the SNP sampling requirements.

In October 2022, there was one exceedance of applicable water quality criterial observed at effluent monitoring station MS-01B. On October 12, fecal coliforms measured 1440 CFU/100 mL; exceeding the stipulated criteria for the MS-01B monitoring station of 1000 CFU/100 mL for fecal coliforms in a grab sample. The cause of the exceedance could not be determined; however, it likely resulted from cross contamination during sample collection or at the external laboratory. As a precaution, MS-01B sample equipment was cleaned and sample tubing was replaced. In addition, parts of the UV disinfection system were replaced. MS-01B was resampled on October 31 and the laboratory result indicated zero fecal coliforms present in the effluent sample. There were no other exceedances of applicable water quality criteria observed at monitoring stations during October 2022.





Water Licence 2AM-MRY1325 Monthly Report

October 2022

Samples taken at the previously established seepage monitoring point from MS-11 are labeled as KM105-SWMP-SEEP-01 for reporting purposes only.

Flow and Volume Measurements

Table 3.1 provides a breakdown of volume measurements for October 2022 as required by Part I, Item 9 of the Licence. There were no exceedances of the source specific daily volume withdrawal limits in October 2022.

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

Prepared by:

Todd Swenson

Environmental Superintendent

Reviewed by:

Connor Devereaux

Environmental Manager

cc: Jeremy Fraser (CIRNAC)

Chris Spencer, Hugh Karpik (QIA)

Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Sylvain Proulx, Kendra Button, Katie Babin, Allison Parker (Baffinland)

Attachments

Attachments – Monthly Water Sampling Results: Table 1.1, Tables 2.1 – 2.5, Table 3.1



October 2022

Attachments Monthly Water Sampling Results

Baffinland

Table 1.1: Monitoring Program Water Sampling Summary for October 2022

MP-01 (Sewage Treatment Facility) MP-01A (Polishing Waste Stabilization Pond) MP-01B (Sewage Treatment Facility) MP-01B (Sewage Treatment Facility) MP-01B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-01C (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility NA NA NA NA No discharge. MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (Least) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-C (Downstream of Construction Area) MP-C-F NA NA NA NA No flow. Discharge volume recorded daily. No discharge. Discharge volume recorded daily. No discharge. Discharge volume recorded daily. No water withdrawal. L2736574-1 Discharge volume recorded daily. No water withdrawal. Pischarge volume recorded daily. No water withdrawal. Pischarge volume recorded daily. No water withdrawal. No discharge. No discharge.	Monitoring Program Station	Sampling Date	Lab ID Number	Comment			
Sewage Treatment Facility 2022-10-11 L2736567-1 daily.		Milne Po	ort				
(Sewage Treatment Facility) MP-D1A (Polishing Waste Stabilization Pond) MP-O1B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) (Freshwater Intake from Km 32 Lake) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-O2 (Milne Port Maintenance Shop) MP-O3 (Bulk Fuel Storage Facility Stormwater) MP-O4 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-O5 Ore Stockpile Sedimentation Pond (Reat) (Rest) MP-O6 Ore Stockpile Sedimentation Pond (West) MP-C-B (Downstream of Construction Area) MP-C-C (Downstream of Construction Area) MP-C-F NA NA NA NA No discharge. Discharge volume recorded daily. No water withdrawal. L2736574-1 L2736574-1 L2736574-1 L2736574-1 L2736574-1 Discharge volume recorded daily. No water withdrawal. Withdrawal volume recorded daily. Withdrawal volume recorded daily. No water withdrawal. No discharge.	MP-01	2022 10 11	12726567 1	Discharge volume recorded			
Polishing Waste Stabilization Pond NA	(Sewage Treatment Facility)	2022-10-11	L2/30307-1	daily.			
(Polishing Waste Stabilization Pond) MP-01B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-02 (MP-02 (MP-02 (Miline Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-05 Now dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-F NA NA NA NA NA NA NA No flow.	MP-01A	NΛ	NA	No discharge			
Sewage Treatment Facility 2022-10-11 L2736574-1 daily.	(Polishing Waste Stabilization Pond)	NA	INA	No discharge.			
(Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-02 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA NA NA NA NA NA N	MP-01B	2022 10 11	12726574 1	Discharge volume recorded			
Freshwater Intake at Phillips Creek NA NA No water withdrawal.	(Sewage Treatment Facility)	2022-10-11	12/303/4-1	daily.			
(Freshwater Intake at Phillips Creek) NA Withdrawal volume recorded daily. MP-MRY-3 (Freshwater Intake from Km 32 Lake) NA NA NA NA indischarge. MP-02 (Milne Port Maintenance Shop) NA NA NA No discharge. MP-03 (Bulk Fuel Storage Facility NA NA NA No discharge. Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) NA NA NA No discharge. MP-04 (Treated Oily Water from Milne Port Snow dump Facility to Tundra) NA NA NA No discharge. MP-05 Ore Stockpile Sedimentation Pond (East) NA NA NA No discharge. MP-06 Ore Stockpile Sedimentation Pond (West) NA NA NA No flow. MP-C-A (Downstream of Construction Area) NA NA No flow. MP-C-B (Downstream of Construction Area) NA NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA NA No flow.	MP-MRY-2	NΛ	NA	No water withdrawal			
(Freshwater Intake from Km 32 Lake) NA recorded daily. MP-02 (Milne Port Maintenance Shop) NA NA No discharge. MP-03 (Bulk Fuel Storage Facility NA NA NA No discharge. Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) NA NA NO discharge. MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) NA NA NO discharge. MP-05 Ore Stockpile Sedimentation Pond (East) NA NA No discharge. MP-06 Ore Stockpile Sedimentation Pond (West) NA NA No discharge. MP-C-A (Downstream of Construction Area) NA NA No flow. MP-C-B (Downstream of Construction Area) NA NA No flow. MP-C-D (Downstream of Construction Area) NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA No flow. MP-C-F (Downstream of Construction Area) NA NA No flow.	(Freshwater Intake at Phillips Creek)	INA	INA	No water withurawar.			
(Freshwater Intake from Km 32 Lake) recorded daily. MP-02 (Milne Port Maintenance Shop) NA NA No discharge. (Milne Port Maintenance Shop) NA NA No discharge. (Bulk Fuel Storage Facility NA NA No discharge. Stormwater) MP-04 NA NA No discharge. (Treated Oily Water from Milne Port Landfarm Facility to Tundra) NA NA No discharge. MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) NA NA No discharge. MP-05D Ore Stockpile Sedimentation Pond (East) NA NA No discharge. MP-06 Ore Stockpile Sedimentation Pond (West) NA NA No flow. MP-C-A (Downstream of Construction Area) NA NA No flow. MP-C-B (Downstream of Construction Area) NA NA No flow. MP-C-C (Downstream of Construction Area) NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA No flow. MP-C-F NA NA NA No flow.	MP-MRY-3	NIA	NIA	Withdrawal volume			
(Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NA NA NA NA NA NA N	(Freshwater Intake from Km 32 Lake)	INA	INA	recorded daily.			
(Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	MP-02	NIA	NIA	No disabarga			
(Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NA No flow. No flow.	(Milne Port Maintenance Shop)	NA NA	INA	No discharge.			
Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA No flow. NA No flow.	MP-03						
MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port NA NA NA NO discharge. MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond NA NA NO discharge. (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NO flow. No flow. No flow.	(Bulk Fuel Storage Facility	NA	NA	No discharge.			
(Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port NA NA No discharge. Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond NA NA No discharge. (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NO flow. NA NO flow. NA NO flow.	Stormwater)						
Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port NA NA No discharge. Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond NA NA NO discharge. (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NO flow. NA NO flow. NA NO flow.	MP-04						
MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond NA NA NA NO discharge. MP-06 Ore Stockpile Sedimentation Pond NA NA NA NO discharge. MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NO flow. No flow.	(Treated Oily Water from Milne Port	NA	NA	No discharge.			
(Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NA No flow.	Landfarm Facility to Tundra)						
Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA No flow.	MP-04A						
MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA No flow.	(Treated Oily Water from Milne Port	NA	NA	No discharge.			
Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	Snow dump Facility to Tundra)						
(East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	MP-05						
MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	Ore Stockpile Sedimentation Pond	NA	NA	No discharge.			
Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow.	(East)						
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MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA No flow. No flow.	Ore Stockpile Sedimentation Pond	NA	NA	No discharge.			
(Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow. No flow. No flow.	(West)						
MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA No flow. No flow. No flow.	MP-C-A						
(Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow. No flow. No flow.	(Downstream of Construction Area)	NA	NA NA	No flow.			
MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA No flow. MP-C-F NA NA No flow.	MP-C-B						
(Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA No flow. No flow. NP-C-F NA NA NO flow.	(Downstream of Construction Area)	NA	NA	No flow.			
(Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA No flow. No flow. NP-C-F NA NA NO flow.	MP-C-D						
(Downstream of Construction Area) NA NA NO flow. MP-C-F NA NA NO flow.	(Downstream of Construction Area)	NA	NA NA	No flow.			
(Downstream of Construction Area) MP-C-F NA NA NO flow.	,						
MP-C-F NA NA No flow.	(Downstream of Construction Area)	NA	NA NA	No flow.			
I NA I NA I No tlow.	MP-C-F						
(Downstream of Construction Area)		NA	NA	No flow.			





Water Licence 2AM-MRY1325 Monthly Report October 2022

Monitoring Program Station	Sampling Date	Lab ID Number	Comment			
MP-C-H		N/A	N. G			
(Downstream of Construction Area)	NA	NA	No flow.			
MP-C-J	N/A	NIA.	N. fl.			
(Downstream of Construction Area)	NA	NA	No flow.			
MP-C-K		214	N. C			
(Downstream of Construction Area)	NA	NA	No flow.			
MP-Q1-01						
(Downstream of Q1 Quarry)	NA	NA	No flow.			
MP-Q1-02			6			
(Downstream of Q1 Quarry)	NA	NA	No flow.			
	Mary River M	ine Site				
MS-01			Discharge volume recorded			
(Sewage Treatment Facility)	2022-10-12	L2736757-1	daily.			
MS-01A						
(Mine Site Polishing Waste	N/A	N/A	Facility not constructed.			
Stabilization Pond)						
MS-01B	2022-10-12	L2736759-1	Discharge volume recorded			
(Sewage Treatment Facility)	2022-10-31	L2738929-1	daily.			
MS-02						
(Mine Site Maintenance Shop)	N/A	N/A	No discharge.			
MS-MRY-1			Withdrawal volume			
(Freshwater Intake Camp Lake)	N/A	N/A	recorded daily.			
MS-MRY-04A	,					
(Polishing Waste Stabilization Pond)	N/A	N/A	No discharge.			
MS-MRY-04B						
(Polishing Waste Stabilization Pond)	N/A	N/A	No discharge.			
MS-MRY-04C						
(Polishing Waste Stabilization Pond)	N/A	N/A	No discharge.			
MS-03						
(Mine Site Bulk Fuel Storage Facility	N/A	N/A	No discharge.			
Stormwater)		,				
MS-03B						
(Mine Site Bulk Fuel Storage Facility	N/A	N/A	No discharge.			
Stormwater)	,	,	ŭ			
MS-04						
(Mine Site Fuel Unloading Station	N/A	N/A	No discharge.			
Stormwater)						
MS-05						
(Mine Site Landfarm Facility)	N/A	N/A	No discharge.			
MS-06						
(Ore Stockpile Pond Stormwater)	N/A	N/A	No discharge.			
,	1	1				





October 2022

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MS-07			
(Run of Mine Ore Stockpile Pond	NA	NA	No discharge.
Stormwater)			
MS-08			
(Mine Waste Rock Stockpile Pond)	NA	NA	No discharge
MS-09		21/2	
(Waste Rock Stockpile East Pond)	N/A	N/A	No discharge.
MS-10			
(SDLT-1 Pond Ore Stockpile	N/A	N/A	No discharge.
Stormwater)			
			Discharge volume calculated
MS-11	2022-10-01	L2735184-1	daily from October 1 to
(KM105 Pond Stormwater)			October 3.
MS-12	N1/A	N1/A	Facility and a section of all
(Weatherhaven Camp Stormwater)	N/A	N/A	Facility not constructed.
MS-13		21/2	
(Explosives Magazine Pond)	N/A	N/A	Facility not constructed.
MS-14		21/2	
(Quarry QMR2 Pond/Sump)	N/A	N/A	Facility not constructed.
MS-MRY-6			
(Exploration Camp Bulk Fuel Storage	N/A	N/A	No discharge.
Facility Stormwater)			
MS-MRY-09		21/2	
(Deposit 1 Surface Water Drainage)	N/A	N/A	No flow.
MS-MRY-10			
(Deposit 1 Surface Water Drainage)	N/A	N/A	No flow.
MS-MRY-13A			
(Downstream Non-Hazardous	N/A	N/A	No flow.
Landfill)			
MS-MRY-13B			
(Downstream Non-Hazardous	N/A	N/A	No flow.
Landfill)			
MS-C-A			
(Downstream of Construction and	N/A	N/A	No flow.
Borrow Areas)			
MS-C-B			
(Downstream of Construction and	N/A	N/A	No flow.
Borrow Areas)			
MS-C-C			
(Downstream of Construction and	N/A	N/A	No flow.
Borrow Areas)	-		
BOLLOM ALEAS)			

Baffinland



Water Licence 2AM-MRY1325 Monthly Report

October 2022

Monitoring Program Station	Sampling Date	Lab ID Number	Comment		
MS-C-D					
(Downstream of Construction and	N/A	N/A	No flow.		
Borrow Areas)					
MS-C-E					
(Downstream of Construction and	N/A	N/A	No flow.		
Borrow Areas)					
MS-C-F					
(Downstream of Construction and	N/A	N/A	No flow.		
Borrow Areas)					
MS-C-G					
(Downstream of Construction and	N/A	N/A	No flow.		
Borrow Areas)					
MS-C-H					
(Downstream of Construction and	N/A	N/A	No flow.		
Borrow Areas)					
MQ-C-A	N/A	NI/A	No flow.		
(Downstream of QMR2 Quarry)	N/A	N/A	NO HOW.		
MQ-C-B	N/A	N/A	No flow.		
(Downstream of QMR2 Quarry)	N/A	IN/A	NO HOW.		
MQ-C-D	N/A	N/A	No flow.		
(Downstream of QMR2 Quarry)	IN/A	IN/A	INU HOW.		
	Steensby F	Port			
Steensby Exploration Camp is					
presently inactive.	N/A	N/A	N/A		



Table 2.1: Water Quality Results for Water Licence Monitoring Location - MP-01

Analyte		MP-01_2022-10-11 L2736567-1 2022-10-11 13:10 N/A			
	Units	LOR	Criteria ¹		
рН	pH units	0.10	6.0 - 9.5	8.03	
Total Suspended Solids	mg/L	1.0	120	<1.0	
Ammonia, Total (as N)	mg/L	0.010	-	0.063	
Total Kjeldahl Nitrogen	mg/L	0.050	-	1.10	
Phosphorus, Total	mg/L	0.060	-	10.9	
Fecal Coliforms	CFU/100 mL	1	10,000	0	
BOD	mg/L	2.0	100	<2.0	
Oil and Grease, Total	mg/L	5.0	-	<5.0	
On and Grease, Total	-	-	No Visible Sheen	No Visible Sheen	
Toxicity	-	-	Not Acutely Toxic	-	

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) -Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean



Table 2.2: Water Quality Results for Water Licence Monitoring Location - MP-01B

Analyte	F	Sample ID ALS Laboratory Sa Sample Date & QA/QC Sample	MP-01B_2022-10-11 L2736574-1 2022-10-11 13:40 N/A				
	Units	LOR	Criteria ¹				
рН	pH units	0.10	6.0 - 9.5	8.19			
Total Suspended Solids	mg/L	1.0	120	<1.0			
Ammonia, Total (as N)	mg/L	0.010	-	0.071			
Total Kjeldahl Nitrogen	mg/L	0.05	-	1.08			
Phosphorus, Total	mg/L	0.030	-	4.49			
Fecal Coliforms	CFU/100 mL	1	10,000	>200 ²			
BOD	mg/L	2.0	100	<2.0			
Oil and Grease, Total	mg/L	5.0	-	<5.0			
On and Grease, rolar	-	-	No Visible Sheen	No Visible Sheen			
Toxicity	-	-	Not Acutely Toxic	-			

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean

² The October 11, 2022 sample collected at MP-01B indicates that Fecal Colifirms were present in the sample at a concentration of >200 CFU/100 mL; however, due to overgrowth with non-target bacteria, the laboratory was unable to determine the distinct Fecal Coliforms count. This indicates likely a generic bacterial contamination at the laboratory made it impossible to accurately count the analysis plate.



Table 2.3: Water Quality Results for Water Licence Monitoring Location - MS-01

Analyte	A	Sample ID ALS Laboratory Sample ID Sample Date & Time QA/QC Sample Type								
	Units	LOR	Criteria ¹							
рН	pH units	0.10	6.0 - 9.5	7.34						
Total Suspended Solids	mg/L	5.0	35	10.5						
Ammonia, Total (as N)	mg/L	0.010	4.0	0.32						
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.476						
Phosphorus, Total	mg/L	0.0030	4.0	0.607						
Fecal Coliforms	CFU/100 mL	0.0	1,000	0						
BOD	mg/L	2.0	30	<2.0						
Oil and Grease, Total	mg/L	5.0	-	<5.0						
On and drease, rotal	-	-	No Visible Sheen	No Visible Sheen						
Toxicity	-	-	Not Acutely Toxic	-						

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment



Table 2.4: Water Quality Results for Water Licence Monitoring Location - MS-01B

Analyte	A	Sample ID ALS Laboratory Sa Sample Date & QA/QC Sample	mple ID Time	MS-01B L2736759-1 2022-10-12 15:00 N/A	MS-01B L2738929-1 2022-10-31 18:00 N/A
	Units	LOR	Criteria ¹		
рН	pH units	0.10	6.0 - 9.5	8.13	8.32
Total Suspended Solids	mg/L	1.0	35	12.9	1
Ammonia, Total (as N)	mg/L	0.010	4.0	0.096	0.245
Total Kjeldahl Nitrogen	mg/L	0.050	-	1.84	1.12
Phosphorus, Total	mg/L	0.0030	4.0	3.12	0.816
Fecal Coliforms	CFU/100 mL	0.0	1,000	1440	0
BOD	mg/L	2.0	30	4.8	<2.0
Oil and Grease, Total	mg/L	5.0	-	<5.0	<5.0
Oil allu Grease, Total	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-	-

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment



Table 2.5: Water Quality Results for Water Licence Monitoring Location - MS-11

			KM105-SWMP-	
		Sample ID		SEEP01_2022-10-01
Analyta	AL	S Laboratory Sam	nple ID	L2735184-1
Analyte		Sample Date & T	ime	2022-10-01 9:35
		QA/QC Sample T	уре	N/A
	Units	LOR	Criteria ¹	
Hardness (as CaCO3)	mg/L	0.50	-	263.0
pH	pH units	0.10	6.0 - 9.5	7.71
Total Suspended Solids	mg/L	2.0	15	<2.0
Total Dissolved Solids		10	13	336.0
	mg/L		-	
Turbidity	NTU	0.10	-	1.17
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	128.0
Ammonia, Total (as N)	mg/L	0.010	-	0.019
Chloride (Cl)	mg/L	0.50	-	42.6
Fluoride (F)	mg/L	0.020	-	0.117
Nitrate (as N)	mg/L	0.020	-	1.77
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.194
Phosphorus, Total	mg/L	0.0030	-	<0.0030
Sulfate (SO4)	mg/L	0.30	-	78.4
Dissolved Organic Carbon	mg/L	0.50	-	2.03
Total Organic Carbon	mg/L	0.50	-	1.76
Aluminum (Al)-Total	mg/L	0.0050	-	0.0356
Arsenic (As)-Total	mg/L	0.00010	0.50	0.00011
Cadmium (Cd)-Total	mg/L	0.0000050	-	0.0000887
Calcium (Ca)-Total	mg/L	0.050	_	59.9
Copper (Cu)-Total	mg/L	0.00050	0.30	0.00204
Iron (Fe)-Total	mg/L	0.010	-	0.044
Lead (Pb)-Total	mg/L	0.000050	0.20	0.000054
Magnesium (Mg)-Total	mg/L	0.0050	-	30.5
Manganese (Mn)-Total	mg/L	0.00050	_	0.00891
		0.000050	-	<0.000050
Mercury (Hg)-Total	mg/L		-	
Molybdenum (Mo)-Total	mg/L	0.000050	-	0.0213
Nickel (Ni)-Total	mg/L	0.00050	0.50	0.00103
Potassium (K)-Total	mg/L	0.050	-	7.40
Selenium (Se)-Total	mg/L	0.000050	-	0.000299
Sodium (Na)-Total	mg/L	0.050	-	5.27
Thallium (Tl)-Total	mg/L	0.000010	-	0.000017
Uranium (U)-Total	mg/L	0.000010	-	0.0287
Zinc (Zn)-Total	mg/L	0.0030	0.50	<0.0030
Aluminum (AI)-Dissolved	mg/L	0.0050	-	0.0056
Arsenic (As)-Dissolved	mg/L	0.00010	-	<0.00010
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	0.0000817
Calcium (Ca)-Dissolved	mg/L	0.050	-	55.2
Copper (Cu)-Dissolved	mg/L	0.00020	-	0.00194
Iron (Fe)-Dissolved	mg/L	0.010	-	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	-	<0.00050
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	30.3
Manganese (Mn)-Dissolved	mg/L	0.00050	-	0.00829
Mercury (Hg)-Dissolved	mg/L	0.0000050	_	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	_	0.0193
Nickel (Ni)-Dissolved	mg/L	0.00050	-	0.0093
Potassium (K)-Dissolved	mg/L	0.050	_	7.06
Selenium (Se)-Dissolved	mg/L	0.000050	_	0.000324
Sodium (Na)-Dissolved		0.00030	-	5.00
` ,	mg/L		-	0.000014
Thallium (TI)-Dissolved	mg/L	0.000010	-	
Uranium (U)-Dissolved	mg/L	0.000010	-	0.0253
Zinc (Zn)-Dissolved	mg/L	0.0010	-	<0.0010
Oil and Grease	-	-	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles and Sedimentation Ponds



Table 3.1: Flow and Volume Measurements - Part I Item 11 - October 2022

DATE	Camp Lake Freshwater for Domestic Use - Daily Water MS-MRY-1 (m³)	Industrial Use -	Treated Sewage Effluent from MS- 01 to Discharge Location #1 (m³)	Effluent from MS 01B to Discharge	WWTPs to Incinerator or	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)	Effluent from	Treated Sewage Effluent from MP-01B to Milne Inlet (m³)	WWTPs to	Removed from	Sludge Removed from Milne Port WWTPs/WTPs to PWSP at Milne Port (m³)	Water Use for Dust Suppression from Authorized Sources (m³) ¹	Treated Sewage Effluent from PWSP MP-01A to Milne Inlet (MP-01A) (m³)	Effluent Discharge from Mine Site Crusher Pad Sedimentation Pond (MS-06) (m³)	Effluent Discharge from Mine Site Run of Mine Ore Stockpile Pond Stormwater (MS-07) (m³)	Effluent Discharge from Mine Site Waste Rock Stockpile Pond (MS-08) (m³)	Effluent Discharge from KM105 Surface Water Management Pond (MS-11) (m³)	Effluent Discharge from Milne Port Ore Stockpile Sedimentation Pond (East) to Milne Inlet (MP-05) (m²)	Effluent Discharge from Milne Port Ore Stockpile Sedimentation Pond (West) to Milne Inlet (MP-06) (m³)	Treated Sewage Effluent from PWSP to Sheardown Lake (MS-MRY-4B) (m³)	Treated Oily Water from Exploration Camp Bulk Fuel Storage Facility to Tundra (MS-MRY-6) (m³)	Treated Oily Water from Milne Port Snowdump Facility to Tundra (MP-04A) (m²)	Effluent Discharge from Milne Port Bulk Fuel Tank Farm Facility to Milne Inlet (MP-03) (m³)		Effluent Discharge from Mine Site Bulk Fuel Storage Facility Stormwater (MS-03) (m³)	Effluent Discharge from Mine Site Bulk Fuel Storage Facility Stormwater (MS-03B) (m³)
1-Oct-22	116.3	6.5	39.0	137.0	0.7	0.0	0.0	51.7	0.0	20.0	34.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	419.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct-22	99.4	3.0	36.0	143.1	1.0	0.0	0.0	49.8	0.0	23.0	30.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	279.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct-22	118.0	15.2	35.0	149.8	0.5	2.0	0.0	53.1	2.0	20.0	30.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct-22	102.6	6.5	34.0	153.3	0.5	0.0	0.0	51.5	0.0	20.0	37.3	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-Oct-22	132.6	10.3	34.0	150.2	0.6	0.0	0.0	62.0	0.0	25.0	39.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Oct-22	108.4	3.0	34.0	142.4	0.5	0.0	0.0	75.2	0.0	21.0	29.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct-22	124.1	6.7	31.0	119.2	0.8	0.0	0.0	60.6	0.0	26.0	34.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct-22	108.3	4.3	25.0	125.2	0.7	0.0	0.0	68.9	0.0	25.0	22.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9-Oct-22	104.2	12.9	25.0	137.5	0.6	0.0	0.0	22.6	0.0	18.0	38.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct-22	114.1	10.3	24.0	138.9	0.5	0.0	0.0	64.4	0.0	18.0	28.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct-22	121.2	8.6	16.0	137.1	0.6	0.0	0.0	48.0	0.0	25.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-Oct-22	155.8	12.9	12.0	152.7	0.6	0.0	0.0	47.8	0.0	23.0	36.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct-22	126.6	5.3	21.0	131.2	0.6	0.0	0.0	38.7	0.0	20.0	36.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct-22	113.1	7.3	33.0	122.4	0.7	0.0	0.0	74.4	0.0	25.0	32.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct-22	100.5	18.4	25.0	130.3	0.6	0.0	0.0	36.5	0.0	25.0	18.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct-22	105.0	10.3	32.0	121.1	0.5	0.0	0.0	44.7	0.0	22.0	33.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17-Oct-22	121.7	19.5	30.0	117.4	0.6	0.0	0.0	65.5	0.0	17.0	29.8	1.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-Oct-22	130.8	3.4	31.0	126.6	0.6	0.0	0.0	49.9	0.0	20.0	30.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct-22	109.1	8.4	24.0	106.5	0.4	0.0	0.0	29.4	0.0	24.0	20.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Oct-22	94.7	0.0	26.2	141.7	0.3	0.0	0.0	51.7	0.0	17.0	23.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21-Oct-22 22-Oct-22	99.6 112.0	8.0	36.0 8.0	123.3 122.4	0.3	0.0	0.0	35.2 49.6	0.0	14.0 15.0	23.2 36.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct-22	114.9	0.0	19.0	104.1	0.4	0.0	0.0	47.0	0.0	25.0	26.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct-22	111.0	22.4	25.0	111.3	0.8	0.0	0.0	49.6	0.0	21.0	22.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct-22	103.8	15.5	32.0	150.4	0.3	0.0	0.0	33.8	0.0	17.0	27.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26-Oct-22	154.3	14.6	22.0	133.8	0.3	0.0	0.0	47.7	0.0	19.0	32.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Oct-22	115.6	12.9	27.0	116.2	1.1	0.0	0.0	21.6	0.0	20.0	23.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct-22	110.2	13.8	29.0	118.8	1.2	0.0	0.0	73.1	0.0	17.0	17.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct-22	127.0	12.9	12.0	112.4	0.5	5.0	0.0	41.7	0.0	20.0	27.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-Oct-22	123.5	24.4	14.0	132.2	1.1	0.0	0.0	44.1	0.0	21.0	18.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31-Oct-22	101.3	4.3	22.0	114.2	1.2	0.0	0.0	39.7	0.0	24.0	18.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		301.7	813.2	4,022.7	19.4	7.0	0.0	1,529.3	2.0	647.0	898.2	35.1	0.0	4.3	0.0	0.0	0.0	0.0	0.0	838.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes: WWTP - Waste Water Treatment Plant PWSP - Polishing Waste Stabilization Pond