

August 30, 2023

Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut X0B 1J0

Resource Management Officer, CIRNAC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0

**RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report
July 2023**

The following is the monthly report for July 2023 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 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 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 July 2023.

Monitoring Program Results

Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Sewage Treatment Plant (STP) facilities and SNP sampling requirements. There were no exceedances of applicable water quality criteria observed at STP monitoring stations in July 2023; however, there were three (3) exceedances of the site-specific grab sample limit of 30mg/L for Total Suspended Solids (TSS) at SNP water monitoring stations, as follows:

- At the Milne Port:

At surface water monitoring station MP-Q1-02, TSS was 73.0 mg/L on July 23. TSS in a subsequent sample collected on July 26 was compliant with all applicable criteria and indicated a low TSS concentration of 3.9 mg/L. On the same day (July 23), surface water monitoring station MP-C-H; located downstream of MP-Q1-02, had a TSS concentration of < 1.3 mg/L.

- At the Mine Site:
 - At surface water monitoring station MS-C-F, TSS was 68.8 mg/L and 72.6 mg/L on July 4 and July 11, respectively. Subsequent samples collected on July 17 and July 23 were compliant with all applicable criteria and indicated a decreasing trend for TSS concentrations. Samples collected further down stream at monitoring stations MS-C-A and MS-C-B were compliant with site-specific grab sample limit on these dates.
 - At surface water monitoring station MQ-C-B, TSS was 292 mg/L on July 3; subsequent samples collected in July were compliant with all applicable criteria and indicated a decreasing trend for TSS concentrations. ESC mitigations including silt fences and check dams were implemented in this area.

In addition, due to the ongoing seepage event at the KM105 Surface Water Management Pond (KM105 Pond), elevated TSS concentrations of 1550 mg/L and 263 mg/L occurred in samples collected at surface water monitoring station KM105-SWMP-SEEP-02 on July 3 and July 5, respectively.

In July 2023, there were three (3) exceedances of the monthly average criteria of 15.0 mg/L for TSS:

- At the Milne Port: Average TSS at MP-Q1-02 was 19.1 mg/L.
- At the Mine Site: Average TSS at MS-C-F and MQ-C-B was 44.9 mg/L and 78.9 mg/L, respectively.

The monitoring station MP-Q1-02 is situated within the constructed drainage ditch responsible for capturing surface water runoff from the Q1 Quarry and is not located within a water body. The observed exceedance at MP-Q1-02 can be attributed to the discharge of sediment-laden water from a deep quarry puddle into the quarry ditch, coupled with sediment accumulation at the bottom of the ditch.

In response to the exceedance at MP-Q1-02, correctives measures were implemented. Specifically, on July 25 a coir log was installed one (1) meter upgradient of the sampling weir. Additionally, on July 28, a combination of crushed rocks and a coir log were installed at the quarry area to prevent sediment laden water at the quarry from entering the ditch. These measures were installed in accordance with the Surface Water and Aquatic Ecosystem Management Plan (SWAEMP), and were maintained and adjusted as required.

Exceedances at MS-C-F were due to elevated TSS from the KM 105 Pond dam seepage. Mitigative actions including the use of flocculant and polymer, construction of internal check dams and the installation of turbidity curtains in a reservoir upstream of these locations have been taken and are ongoing to address this seepage and associated water quality, including the ongoing development and implementation of a long-term remediation plan. Samples continue to be collected at water quality monitoring station KM105-SWMP-SEEP-02 when there is flowing water present and a representative sample can be collected. Estimated discharge volumes are provided in Table 3.1.

The exceedance at MQ-C-B was due to localized snow melt and freshet runoff conditions that continued into July. Check dams were subsequently constructed upgradient of MQ-C-B in accordance with the SWAEMP to slow the flow and settle sediments prior to the water entering the receiving environment. Acute lethality samples collected at MQ-C-B on July 3 were not acutely toxic.

Flow and Volume Measurements

Table 3.1 provides a breakdown of volume measurements for July 2023 as required by Part I, Item 9 of the Licence. There were no exceedances of the source specific daily volume withdrawal limits in July 2023.

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:

A handwritten signature in black ink that reads "Allison Parker".

Allison Parker
Environmental Specialist

Reviewed by:

A handwritten signature in black ink that reads "Katie Babin".

Katie Babin
Environmental Superintendent

cc: Jeremy Fraser, Omer Pasalic, Sean Noble-Nowdluk (CIRNAC)
Conor Goddard, Chris Spencer (QIA)
Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Connor Devereaux, Todd Swenson, Allison Parker, Elisabeth Luther (Baffinland)

Attachments

Attachments – Table 1.1, Tables 2, Table 3

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

Location	Location Description	Sample Date	Sample Type	Lab Sample ID
MP-01	Sewage Treatment Facility	2023-07-04	P	WT2319797-001
MP-01B	Sewage Treatment Facility	2023-07-04	P	WT2319798-001
MP-03	Bulk Fuel Storage Facility Stormwater	2023-07-22	P	BF2300167-001
MP-05	Ore Stockpile Sedimentation Pond (East)	2023-07-04	P	WT2320156-002
MP-06	Ore Stockpile Sedimentation Pond (West)	2023-07-04	P	WT2320156-001
MP-C-B	Downstream of Construction Area	2023-07-03	P	BF2300119-003
MP-C-B	Downstream of Construction Area	2023-07-09	P	BF2300136-003
MP-C-B	Downstream of Construction Area	2023-07-17	P	BF2300159-005
MP-C-B	Downstream of Construction Area	2023-07-23	P	BF2300169-003
MP-C-H	Downstream of Construction Area	2023-07-03	P	BF2300119-006
MP-C-H	Downstream of Construction Area	2023-07-03	TB	BF2300119-007
MP-C-H	Downstream of Construction Area	2023-07-09	P	BF2300136-007
MP-C-H	Downstream of Construction Area	2023-07-17	P	BF2300159-001
MP-C-H	Downstream of Construction Area	2023-07-23	P	BF2300169-001
MP-C-H	Downstream of Construction Area	2023-07-23	TB	BF2300169-002
MP-C-J	Downstream of Construction Area	2023-07-03	P	BF2300119-001
MP-C-J	Downstream of Construction Area	2023-07-09	FB	BF2300136-005
MP-C-J	Downstream of Construction Area	2023-07-09	P	BF2300136-004
MP-C-J	Downstream of Construction Area	2023-07-17	P	BF2300159-004
MP-C-J	Downstream of Construction Area	2023-07-23	P	BF2300169-005
MP-C-K	Downstream of Construction Area	2023-07-03	P	BF2300119-001
MP-C-K	Downstream of Construction Area	2023-07-09	P	BF2300136-006
MP-C-K	Downstream of Construction Area	2023-07-17	P	BF2300159-006
MP-C-K	Downstream of Construction Area	2023-07-23	P	BF2300169-004
MP-Q1-01	Downstream of Q1 Quarry	2023-07-03	P	BF2300119-004
MP-Q1-01	Downstream of Q1 Quarry	2023-07-09	P	BF2300136-001
MP-Q1-01	Downstream of Q1 Quarry	2023-07-17	P	BF2300159-003
MP-Q1-01	Downstream of Q1 Quarry	2023-07-23	P	BF2300169-006
MP-Q1-02	Downstream of Q1 Quarry	2023-07-03	P	BF2300119-005

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken

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

MP-Q1-02	Downstream of Q1 Quarry	2023-07-09	P	BF2300136-002
MP-Q1-02	Downstream of Q1 Quarry	2023-07-17	P	BF2300159-002
MP-Q1-02	Downstream of Q1 Quarry	2023-07-23	P	BF2300169-007
MP-Q1-02	Downstream of Q1 Quarry	2023-07-26	P	BF2300177-001
MS-01B	Sewage Treatment Facility	2023-07-04	P	WT2319794-001
MS-08	Mine Waste Rock Stockpile Pond	2023-07-11	P	BF2300144-001
KM105-SWMP-SEEP-02	KM105 Pond Stormwater	2023-07-03	P	BF2300123-001
KM105-SWMP-SEEP-02	KM105 Pond Stormwater	2023-07-05	P	BF2300122-001
MS-MRY-09	Deposit 1 Surface Water Drainage	2023-07-04	P	BF2300127-012
MS-MRY-09 ^{1,2}	Deposit 1 Surface Water Drainage	2023-07-17	P	BF2300157-007
MS-MRY-09	Deposit 1 Surface Water Drainage	2023-07-17	FD	BF2300157-015
MS-MRY-09	Deposit 1 Surface Water Drainage	2023-07-24	P	BF2300174-001
MS-MRY-09	Deposit 1 Surface Water Drainage	2023-07-24	FB	BF2300174-002
MS-MRY-13A	Downstream Non-Hazardous Landfill	2023-07-10	P	BF2300140-012
MS-MRY-13A	Downstream Non-Hazardous Landfill	2023-07-17	FB	BF2300157-003
MS-MRY-13A	Downstream Non-Hazardous Landfill	2023-07-17	P	BF2300157-002
MS-MRY-13A	Downstream Non-Hazardous Landfill	2023-07-23	P	BF2300170-005
MS-MRY-13B	Downstream Non-Hazardous Landfill	2023-07-23	P	BF2300170-004
MS-C-A	Downstream of Construction and Borrow Areas	2023-07-04	P	BF2300127-009
MS-C-A	Downstream of Construction and Borrow Areas	2023-07-10	P	BF2300140-004
MS-C-A	Downstream of Construction and Borrow Areas	2023-07-10	FB	BF2300140-013
MS-C-A	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-010
MS-C-A	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-002
MS-C-B	Downstream of Construction and Borrow Areas	2023-07-04	P	BF2300127-010
MS-C-B	Downstream of Construction and Borrow Areas	2023-07-11	P	BF2300140-005
MS-C-B	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-011
MS-C-B	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-003

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken

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

MS-C-C	Downstream of Construction and Borrow Areas	2023-07-10	P	BF2300140-006
MS-C-C	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-008
MS-C-C	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-010
MS-C-D	Downstream of Construction and Borrow Areas	2023-07-03	P	BF2300127-008
MS-C-D	Downstream of Construction and Borrow Areas	2023-07-10	P	BF2300140-007
MS-C-D	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-006
MS-C-D	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-009
MS-C-E	Downstream of Construction and Borrow Areas	2023-07-03	P	BF2300127-007
MS-C-E	Downstream of Construction and Borrow Areas	2023-07-10	P	BF2300140-008
MS-C-E	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-001
MS-C-E	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-008
MS-C-F	Downstream of Construction and Borrow Areas	2023-07-04	P	BF2300127-011
MS-C-F	Downstream of Construction and Borrow Areas	2023-07-11	P	BF2300140-009
MS-C-F	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-009
MS-C-F	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-001
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-04	P	BF2300127-013
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-10	P	BF2300140-010
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-10	FD	BF2300140-014
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-015
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-17	FD	BF2300157-015
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-006
MS-C-G	Downstream of Construction and Borrow Areas	2023-07-23	FD	BF2300170-007
MS-C-H	Downstream of Construction and Borrow Areas	2023-07-03	P	BF2300127-006

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken

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

MS-C-H	Downstream of Construction and Borrow Areas	2023-07-10	P	BF2300140-011
MS-C-H	Downstream of Construction and Borrow Areas	2023-07-17	P	BF2300157-005
MS-C-H	Downstream of Construction and Borrow Areas	2023-07-23	P	BF2300170-014
MQ-C-A	Downstream of QMR2 Quarry	2023-07-03	P	BF2300127-001
MQ-C-A	Downstream of QMR2 Quarry	2023-07-03	FB	BF2300127-002
MQ-C-A	Downstream of QMR2 Quarry	2023-07-10	P	BF2300140-001
MQ-C-A	Downstream of QMR2 Quarry	2023-07-17	P	BF2300157-013
MQ-C-A	Downstream of QMR2 Quarry	2023-07-23	P	BF2300170-012
MQ-C-B	Downstream of QMR2 Quarry	2023-07-03	P	WT2319993-001
MQ-C-B	Downstream of QMR2 Quarry	2023-07-10	P	BF2300140-002
MQ-C-B	Downstream of QMR2 Quarry	2023-07-17	P	BF2300157-012
MQ-C-B	Downstream of QMR2 Quarry	2023-07-23	P	BF2300170-011
MQ-C-D	Downstream of QMR2 Quarry	2023-07-03	P	BF2300127-003
MQ-C-D	Downstream of QMR2 Quarry	2023-07-03	FD	BF2300127-004
MQ-C-D	Downstream of QMR2 Quarry	2023-07-10	P	BF2300140-003
MQ-C-D	Downstream of QMR2 Quarry	2023-07-17	P	BF2300157-014
MQ-C-D	Downstream of QMR2 Quarry	2023-07-23	P	BF2300170-013

¹ Scheduled weekly sample could not be collected during the week of July 9 due to poor weather onsite and helicopter logistical constraints.

² An additional Group 7 was collected on July 17 to correspond to annual Group 3 sample collection.

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-01

			Sample ID
			MP-01
			ALS Lab Sample ID
			WT2319797
			Sample Date
			2023-07-04
			Sample Type
			P
Analyte	Units	Table 5 Criteria	
pH, Lab	pH units	9.5	7.74
Total Suspended Solids	mg/L	120	< 1.0
Total Dissolved Solids	mg/L		868
Turbidity	NTU		0.33
Alkalinity, Total	mg/L		104
Ammonia, Total (as N)	mg/L		0.0990
Total Kjeldahl Nitrogen	mg/L		1.42
Fecal Coliforms	CFU/100mL	10000	< 1
BOD	mg/L	100	2.8
Oil and Grease, Total	mg/L		< 5.0
Phosphorus, Nutrient	mg/L		10.8

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-01B

			Sample ID
			MP-01B
			ALS Lab Sample ID
			WT2319798
			Sample Date
			2023-07-04
			Sample Type
			P
Analyte	Units	Table 5 Criteria	
pH, Lab	pH units	9.5	7.50
Total Suspended Solids	mg/L	120	< 1.0
Total Dissolved Solids	mg/L		696
Turbidity	NTU		0.33
Alkalinity, Total	mg/L		66.4
Ammonia, Total (as N)	mg/L		0.0343
Total Kjeldahl Nitrogen	mg/L		1.47
Fecal Coliforms	CFU/100mL	10000	7
BOD	mg/L	100	< 2.0
Oil and Grease, Total	mg/L		< 5.0
Phosphorus, Nutrient	mg/L		9.21

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-03**

		Sample ID	MP-03
		ALS Lab Sample ID	BF2300167
		Sample Date	2023-07-22
		Sample Type	P
Analyte	Units	Table 11 Criteria	
pH, Lab	pH units		8.32
Total Suspended Solids	mg/L		2.3
Total Dissolved Solids	mg/L		585
Turbidity	NTU		3.51
Ammonia, Total (as N)	mg/L		0.0330
Arsenic - Total	mg/L		0.00134
Copper - Total	mg/L		< 0.00500
Lead - Total	mg/L	0.0010	< 0.000500
Nickel - Total	mg/L		< 0.00500
Zinc - Total	mg/L		< 0.0300
Oil and Grease, Total	mg/L	15	< 5.0
Visible Sheen (100=Yes, 0=No)	None	99	0
Benzene	ug/L	370	< 0.50
Ethylbenzene	ug/L	90	< 0.50
Toluene	ug/L	2.0	< 0.50
F1-BTEX	ug/L		< 25
F1 (C6-C10)	ug/L		< 25
F2 (C10-C16)	ug/L		110
F3 (C16-C34)	ug/L		< 250
F4 (C34-C50)	ug/L		< 250
Total Petroleum Hydrocarbons (C6-C50)	ug/L		< 370
Phosphorus, Nutrient	mg/L		0.0052

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-05

		Sample ID	MP-05
		ALS Lab Sample ID	WT2320156
		Sample Date	2023-07-04
		Sample Type	P
Analyte	Units	Table 6 Criteria	
Hardness	mg/L		367
pH, Lab	pH units	9.5	8.17
Total Suspended Solids	mg/L	15	1.1
Total Dissolved Solids	mg/L		561
Turbidity	NTU		2.50
Alkalinity, Total	mg/L		117
Ammonia, Total (as N)	mg/L		0.483
Chloride	mg/L		142
Fluoride	mg/L		0.181
Nitrate	mg/L		2.33
Total Kjeldahl Nitrogen	mg/L		1.63
Sulfate	mg/L		134
Dissolved Organic Carbon	mg/L		4.04
Total Organic Carbon	mg/L		3.99
Aluminum - Total	mg/L		0.0405
Antimony - Total	mg/L		0.00022
Arsenic - Total	mg/L	0.50	0.00020
Barium - Total	mg/L		0.0213
Cadmium - Total	mg/L		< 0.0000050
Calcium - Total	mg/L		76.6
Chromium - Total	mg/L		< 0.00050
Cobalt - Total	mg/L		0.00050
Copper - Total	mg/L	0.30	0.00137
Iron - Total	mg/L		0.038
Lead - Total	mg/L	0.20	0.000058
Lithium - Total	mg/L		0.0228
Magnesium - Total	mg/L		42.6
Manganese - Total	mg/L		0.0560
Mercury - Total	mg/L		< 0.0000050
Molybdenum - Total	mg/L		0.00569
Nickel - Total	mg/L	0.50	0.00093
Phosphorus, Total	mg/L		< 0.050
Potassium - Total	mg/L		9.05
Selenium - Total	mg/L		0.000436
Sodium - Total	mg/L		39.9
Strontium - Total	mg/L		0.332
Thallium - Total	mg/L		0.000026
Tin - Total	mg/L		< 0.00010
Titanium - Total	mg/L		< 0.00050
Uranium - Total	mg/L		0.121
Vanadium - Total	mg/L		< 0.00050
Zinc - Total	mg/L	0.50	0.0086
Aluminum - Dissolved	mg/L		0.0151
Arsenic - Dissolved	mg/L		0.00020
Cadmium - Dissolved	mg/L		< 0.0000050
Calcium - Dissolved	mg/L		77.9
Copper - Dissolved	mg/L		0.00128
Iron - Dissolved	mg/L		< 0.010
Lead - Dissolved	mg/L		< 0.000050
Magnesium - Dissolved	mg/L		43.0
Manganese - Dissolved	mg/L		0.0380
Mercury - Dissolved	mg/L		< 0.0000050
Molybdenum - Dissolved	mg/L		0.00588
Nickel - Dissolved	mg/L		0.00086
Potassium - Dissolved	mg/L		9.39
Selenium - Dissolved	mg/L		0.000444
Sodium - Dissolved	mg/L		40.3
Thallium - Dissolved	mg/L		0.000025
Uranium - Dissolved	mg/L		0.117
Zinc - Dissolved	mg/L		0.0081
Visible Sheen (100=Yes, 0=No)	None	99	0
Phenols	ug/L		< 1.0
Mean Mortality to Daphnia magna	%	50	< 1.0
Mean Mortality to Rainbow Trout	%	50	< 1.0
Phosphorus, Nutrient	mg/L		0.0057

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-06

		Sample ID	MP-06
		ALS Lab Sample ID	WT2320156
		Sample Date	2023-07-04
		Sample Type	P
Analyte	Units	Table 6 Criteria	
Hardness	mg/L		349
pH, Lab	pH units	9.5	7.97
Total Suspended Solids	mg/L	15	< 1.0
Total Dissolved Solids	mg/L		596
Turbidity	NTU		1.76
Alkalinity, Total	mg/L		77.2
Ammonia, Total (as N)	mg/L		4.14
Chloride	mg/L		89.8
Fluoride	mg/L		0.166
Nitrate	mg/L		6.57
Total Kjeldahl Nitrogen	mg/L		4.47
Sulfate	mg/L		258
Dissolved Organic Carbon	mg/L		4.31
Total Organic Carbon	mg/L		4.85
Aluminum - Total	mg/L		0.0138
Antimony - Total	mg/L		< 0.00010
Arsenic - Total	mg/L	0.50	0.00020
Barium - Total	mg/L		0.0111
Cadmium - Total	mg/L		< 0.0000050
Calcium - Total	mg/L		50.4
Chromium - Total	mg/L		< 0.00050
Cobalt - Total	mg/L		0.00126
Copper - Total	mg/L	0.30	< 0.00050
Iron - Total	mg/L		0.025
Lead - Total	mg/L	0.20	< 0.000050
Lithium - Total	mg/L		0.0144
Magnesium - Total	mg/L		54.3
Manganese - Total	mg/L		0.271
Mercury - Total	mg/L		< 0.0000050
Molybdenum - Total	mg/L		0.00319
Nickel - Total	mg/L	0.50	0.00155
Phosphorus, Total	mg/L		< 0.050
Potassium - Total	mg/L		9.46
Selenium - Total	mg/L		0.000549
Sodium - Total	mg/L		59.1
Strontium - Total	mg/L		0.214
Thallium - Total	mg/L		0.000057
Tin - Total	mg/L		< 0.00010
Titanium - Total	mg/L		< 0.00030
Uranium - Total	mg/L		0.297
Vanadium - Total	mg/L		< 0.00050
Zinc - Total	mg/L	0.50	< 0.0030
Aluminum - Dissolved	mg/L		0.0025
Arsenic - Dissolved	mg/L		0.00018
Cadmium - Dissolved	mg/L		< 0.0000050
Calcium - Dissolved	mg/L		51.3
Copper - Dissolved	mg/L		0.00033
Iron - Dissolved	mg/L		< 0.010
Lead - Dissolved	mg/L		< 0.000050
Magnesium - Dissolved	mg/L		56.1
Manganese - Dissolved	mg/L		0.223
Mercury - Dissolved	mg/L		< 0.0000050
Molybdenum - Dissolved	mg/L		0.00329
Nickel - Dissolved	mg/L		0.00139
Potassium - Dissolved	mg/L		9.99
Selenium - Dissolved	mg/L		0.000570
Sodium - Dissolved	mg/L		61.3
Thallium - Dissolved	mg/L		0.000057
Uranium - Dissolved	mg/L		0.291
Zinc - Dissolved	mg/L		0.0019
Visible Sheen (100=Yes, 0=No)	None	99	0
Phenols	ug/L		< 1.0
Mean Mortality to Daphnia magna	%	50	< 1.0
Mean Mortality to Rainbow Trout	%	50	< 1.0
Phosphorus, Nutrient	mg/L		0.0053

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-C-B**

			Sample ID	MP-C-B	MP-C-B	MP-C-B	MP-C-B
			ALS Lab Sample ID	BF2300119	BF2300136	BF2300159	BF2300169
			Sample Date	2023-07-03	2023-07-09	2023-07-17	2023-07-23
			Sample Type	P	P	P	P
Analyte	Units	Table 9 Criteria					
Conductivity	umhos/cm		291	-	-	-	-
pH, Lab	pH units	9.5	8.28	8.29	8.26	8.13	
Total Suspended Solids	mg/L	30	< 1.7	1.1	1.7	< 1.0	
Total Dissolved Solids	mg/L		155	154	252	282	
Turbidity	NTU		7.08	5.29	3.01	1.67	
Ammonia, Total (as N)	mg/L		0.150	-	-	-	
Nitrate	mg/L		1.83	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-C-H

			Sample ID	MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H
			ALS Lab Sample ID	BF2300119	BF2300119	BF2300136	BF2300159	BF2300169	BF2300169
			Sample Date	2023-07-03	2023-07-03	2023-07-09	2023-07-17	2023-07-23	2023-07-23
			Sample Type	P	TB	P	P	P	TB
Analyte	Units	Table 9 Criteria							
Conductivity	umhos/cm		136	< 1.0	-	-	-	-	-
pH, Lab	pH units	9.5	7.93	6.17	7.83	8.00	8.11	6.49	
Total Suspended Solids	mg/L	30	< 1.6	< 1.7	< 1.0	< 1.0	< 1.3	< 1.0	
Total Dissolved Solids	mg/L		78	19	48	133	118	< 18	
Turbidity	NTU		1.50	1.67	0.51	0.41	0.31	0.55	
Ammonia, Total (as N)	mg/L		0.0073	< 0.0050	-	-	-	-	
Nitrate	mg/L		0.146	< 0.020	-	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	< 5.0	-	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	-	0	0	0	-	

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-C-J**

			Sample ID	MP-C-J	MP-C-J	MP-C-J	MP-C-J	MP-C-J
			ALS Lab Sample ID	BF2300119	BF2300136	BF2300136	BF2300159	BF2300169
			Sample Date	2023-07-03	2023-07-09	2023-07-09	2023-07-17	2023-07-23
			Sample Type	P	P	FB	P	P
Analyte	Units	Table 9 Criteria						
Conductivity	umhos/cm		381	-	-	-	-	-
pH, Lab	pH units	9.5	7.83	7.94	6.90	7.81	7.79	
Total Suspended Solids	mg/L	30	< 1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Dissolved Solids	mg/L		204	181	< 19	250	264	
Turbidity	NTU		0.49	0.18	< 0.10	0.24	0.42	
Ammonia, Total (as N)	mg/L		0.0095	-	-	-	-	-
Nitrate	mg/L		0.084	-	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	-	0	0	

Notes:

Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-C-K**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-C-K	MP-C-K	MP-C-K	MP-C-K
			MP-C-K_2023-07-03	MP-C-K_2023-07-09	MP-C-K_2023-07-17	MP-C-K_2023-07-23
			BF2300119	BF2300136	BF2300159	BF2300169
			2023-07-03	2023-07-09	2023-07-17	2023-07-23
			P	P	P	P
Analyte	Units	Table 9 Criteria				
Conductivity	umhos/cm		370	-	-	-
pH, Lab	pH units	9.5	8.17	8.15	8.20	8.14
Total Suspended Solids	mg/L	30	< 1.5	1.2	6.2	< 1.0
Total Dissolved Solids	mg/L		170	244	312	336
Turbidity	NTU		2.90	1.68	3.41	1.00
Ammonia, Total (as N)	mg/L		0.115	-	-	-
Nitrate	mg/L		0.430	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-Q1-01**

			Sample ID	MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-01
			ALS Lab Sample ID	BF2300119	BF2300136	BF2300159	BF2300169
			Sample Date	2023-07-03	2023-07-09	2023-07-17	2023-07-23
			Sample Type	P	P	P	P
Analyte	Units	Table 9 Criteria					
Conductivity	umhos/cm		134	-	-	-	-
pH, Lab	pH units	9.5	7.88	7.94	7.80	7.89	
Total Suspended Solids	mg/L	30	< 1.6	< 1.0	2.1	< 1.0	
Total Dissolved Solids	mg/L		90	88	120	107	
Turbidity	NTU		4.29	2.88	4.12	3.37	
Ammonia, Total (as N)	mg/L		< 0.0050	-	-	-	
Nitrate	mg/L		0.396	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank

**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MP-Q1-02**

			Sample ID	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02
			ALS Lab Sample ID	BF2300119	BF2300136	BF2300159	BF2300169	BF2300177
			Sample Date	2023-07-03	2023-07-09	2023-07-17	2023-07-23	2023-07-26
			Sample Type	P	P	P	P	P
Analyte	Units	Table 9 Criteria (Quarry)						
Conductivity	umhos/cm		226	-	-	-	-	-
pH, Lab	pH units	9.5	7.90	7.92	7.87	7.88	7.75	
Total Suspended Solids	mg/L	30	< 1.5	6.9	10.9	-	3.9	
Total Suspended Solids	mg/L	30	-	-	-	73.0	-	
Total Dissolved Solids	mg/L		130	147	254	307	268	
Turbidity	NTU		11.1	17.8	28.0	128	15.9	
Ammonia, Total (as N)	mg/L		2.26	-	-	-	-	
Nitrate	mg/L		7.50	-	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0	0	
Mean Mortality to Daphnia magna	%	50	< 1.0	-	-	-	-	
Mean Mortality to Rainbow Trout	%	50	< 1.0	-	-	-	-	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-01B

			Sample ID
			MS-01B
			ALS Lab Sample ID
			WT2319794
			Sample Date
			2023-07-04
			Sample Type
			P
Analyte	Units	Table 4 Criteria	
pH, Lab	pH units	9.5	8.20
Total Suspended Solids	mg/L	35	< 1.0
Total Dissolved Solids	mg/L		766
Turbidity	NTU		0.27
Alkalinity, Total	mg/L		225
Ammonia, Total (as N)	mg/L	4.0	0.0236
Total Kjeldahl Nitrogen	mg/L		3.31
Fecal Coliforms	CFU/100mL	1000	3
BOD	mg/L	30	< 2.0
Oil and Grease, Total	mg/L		< 5.0
Phosphorus, Nutrient	mg/L	4.0	0.562

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-08

Sample ID			MS-08
ALS Lab Sample ID			BF2300144
Sample Date			2023-07-11
Sample Type			P
Analyte	Units	Table 6 Criteria	
Hardness	mg/L		98.0
Conductivity	umhos/cm		233
pH, Lab	pH units	9.5	6.56
Total Suspended Solids	mg/L	15	3.7
Total Dissolved Solids	mg/L		150
Turbidity	NTU		9.27
Alkalinity, Total	mg/L		5.5
Ammonia, Total (as N)	mg/L		0.230
Chloride	mg/L		1.73
Fluoride	mg/L		0.040
Nitrate	mg/L		1.33
Total Kjeldahl Nitrogen	mg/L		0.462
Sulfate	mg/L		87.8
Dissolved Organic Carbon	mg/L		0.81
Total Organic Carbon	mg/L		0.82
Aluminum - Total	mg/L		0.206
Antimony - Total	mg/L		< 0.00010
Arsenic - Total	mg/L	0.50	< 0.00010
Barium - Total	mg/L		0.00631
Cadmium - Total	mg/L		0.0000335
Calcium - Total	mg/L		7.43
Chromium - Total	mg/L		0.00066
Cobalt - Total	mg/L		0.00683
Copper - Total	mg/L	0.30	0.00103
Iron - Total	mg/L		0.428
Lead - Total	mg/L	0.20	0.000154
Lithium - Total	mg/L		0.0040
Magnesium - Total	mg/L		20.2
Manganese - Total	mg/L		0.533
Mercury - Total	mg/L		< 0.0000050
Molybdenum - Total	mg/L		0.00110
Nickel - Total	mg/L	0.50	0.0118
Phosphorus, Total	mg/L		< 0.050
Potassium - Total	mg/L		2.52
Selenium - Total	mg/L		0.000967
Sodium - Total	mg/L		0.686
Strontium - Total	mg/L		0.0132
Thallium - Total	mg/L		0.000018
Tin - Total	mg/L		< 0.00010
Titanium - Total	mg/L		0.00680
Uranium - Total	mg/L		0.000142
Vanadium - Total	mg/L		< 0.00050
Zinc - Total	mg/L	0.50	0.0032
Aluminum - Dissolved	mg/L		0.0012
Arsenic - Dissolved	mg/L		< 0.00010
Cadmium - Dissolved	mg/L		0.0000310
Calcium - Dissolved	mg/L		7.27
Copper - Dissolved	mg/L		0.00033
Iron - Dissolved	mg/L		0.021
Lead - Dissolved	mg/L		< 0.000050
Magnesium - Dissolved	mg/L		19.4
Manganese - Dissolved	mg/L		0.506
Mercury - Dissolved	mg/L		< 0.0000050
Molybdenum - Dissolved	mg/L		0.00104
Nickel - Dissolved	mg/L		0.0107
Potassium - Dissolved	mg/L		2.47
Selenium - Dissolved	mg/L		0.000976
Sodium - Dissolved	mg/L		0.668
Thallium - Dissolved	mg/L		0.000014
Uranium - Dissolved	mg/L		0.000062
Zinc - Dissolved	mg/L		0.0027
Visible Sheen (100=Yes, 0=No)	None	99	0
Mean Mortality to Daphnia magna	%	50	< 1.0
Mean Mortality to Rainbow Trout	%	50	< 1.0
Phosphorus, Nutrient	mg/L		0.0343

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - KM105-SWMP-SEEP-02**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			KM105-SWMP-SEEP-02	KM105-SWMP-SEEP-02
			KM105-SWMP-SEEP-02_2023-07-03	KM105-SWMP-SEEP-02_2023-07-05
			BF2300123	BF2300122
			2023-07-03	2023-07-05
			P	P
Analyte	Units	Table 6 Criteria		
Conductivity	umhos/cm		179	160
pH, Lab	pH units	9.5	7.64	7.60
Total Suspended Solids	mg/L	15	1560	263
Total Dissolved Solids	mg/L		125	122
Turbidity	NTU		2130	291
Ammonia, Total (as N)	mg/L		0.0541	0.0117
Nitrate	mg/L		-	0.346
Oil and Grease, Total	mg/L		-	< 5.0
Visible Sheen (100=Yes, 0=No)	None	99	0 0	0
Mean Mortality to Daphnia magna	%	50	6.7	-
Mean Mortality to Rainbow Trout	%	50	< 1.0	-

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-MRY-09

Sample ID			MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09
ALS Lab Sample ID			BF2300127	BF2300156	BF2300157	BF2300174	BF2300174
Sample Date			2023-07-04	2023-07-17	2023-07-17	2023-07-24	2023-07-24
Sample Type			P	P	FD	P	FB
Analyte	Units	Table 6 Criteria					
Hardness	mg/L		26.6	41.2	42.5	-	-
Conductivity	umhos/cm		57.4	-	-	-	-
pH, Lab	pH units	9.5	7.63	7.61	7.64	7.75	6.67
Total Suspended Solids	mg/L	15	3.1	< 1.0	1.0	1.0	3.7
Total Dissolved Solids	mg/L		< 20	67	60	58	< 18
Turbidity	NTU		0.97	1.08	0.99	1.91	3.55
Alkalinity, Total	mg/L		27.0	45.8	47.1	-	-
Ammonia, Total (as N)	mg/L		< 0.0050	< 0.0050	< 0.0050	-	-
Chloride	mg/L		2.40	3.36	3.44	-	-
Fluoride	mg/L		< 0.020	< 0.020	< 0.020	-	-
Nitrate	mg/L		< 0.020	0.036	0.037	-	-
Total Kjeldahl Nitrogen	mg/L		< 0.050	< 0.050	< 0.050	-	-
Sulfate	mg/L		0.71	1.27	1.31	-	-
Dissolved Organic Carbon	mg/L		0.89	1.06	1.01	-	-
Total Organic Carbon	mg/L		1.18	1.07	1.08	-	-
Aluminum - Total	mg/L		0.0523	0.0212	0.0297	-	-
Antimony - Total	mg/L		< 0.00010	< 0.00010	< 0.00010	-	-
Arsenic - Total	mg/L	0.50	< 0.00010	< 0.00010	< 0.00010	-	-
Barium - Total	mg/L		0.00423	0.00556	0.00575	-	-
Cadmium - Total	mg/L		< 0.0000050	< 0.0000050	< 0.0000050	-	-
Calcium - Total	mg/L		5.10	7.84	8.06	-	-
Chromium - Total	mg/L		< 0.00050	< 0.00050	< 0.00050	-	-
Cobalt - Total	mg/L		< 0.00010	< 0.00010	< 0.00010	-	-
Copper - Total	mg/L	0.30	0.00105	0.00149	0.00148	-	-
Iron - Total	mg/L		0.075	0.024	0.035	-	-
Lead - Total	mg/L	0.20	0.000059	< 0.000050	< 0.000050	-	-
Lithium - Total	mg/L		< 0.0010	< 0.0010	< 0.0010	-	-
Magnesium - Total	mg/L		3.36	5.26	5.44	-	-
Manganese - Total	mg/L		0.00152	0.00094	0.00105	-	-
Mercury - Total	mg/L		< 0.0000050	< 0.0000050	< 0.0000050	-	-
Molybdenum - Total	mg/L		0.000147	0.000322	0.000342	-	-
Nickel - Total	mg/L	0.50	< 0.00050	< 0.00050	0.00057	-	-
Phosphorus, Total	mg/L		< 0.050	< 0.050	< 0.050	-	-
Potassium - Total	mg/L		0.781	1.11	1.10	-	-
Selenium - Total	mg/L		< 0.000050	< 0.000050	< 0.000050	-	-
Sodium - Total	mg/L		0.283	0.399	0.396	-	-
Strontium - Total	mg/L		0.00298	0.00482	0.00489	-	-
Thallium - Total	mg/L		< 0.000010	< 0.000010	< 0.000010	-	-
Tin - Total	mg/L		< 0.00010	< 0.00010	< 0.00010	-	-
Titanium - Total	mg/L		0.00256	0.00086	0.00136	-	-
Uranium - Total	mg/L		0.000167	0.000560	0.000566	-	-
Vanadium - Total	mg/L		< 0.00050	< 0.00050	< 0.00050	-	-
Zinc - Total	mg/L	0.50	< 0.0030	< 0.0030	< 0.0030	-	-
Aluminum - Dissolved	mg/L		0.0072	0.0068	0.0061	-	-
Arsenic - Dissolved	mg/L		< 0.00010	< 0.00010	< 0.00010	-	-
Cadmium - Dissolved	mg/L		< 0.0000050	< 0.0000050	< 0.0000050	-	-
Calcium - Dissolved	mg/L		4.94	7.95	7.95	-	-
Copper - Dissolved	mg/L		0.00089	0.00140	0.00134	-	-
Iron - Dissolved	mg/L		< 0.010	< 0.010	< 0.010	-	-
Lead - Dissolved	mg/L		< 0.000050	< 0.000050	< 0.000050	-	-
Magnesium - Dissolved	mg/L		3.33	5.09	5.03	-	-
Manganese - Dissolved	mg/L		0.00035	0.00040	0.00039	-	-
Mercury - Dissolved	mg/L		< 0.0000050	< 0.0000050	< 0.0000050	-	-
Molybdenum - Dissolved	mg/L		0.000150	0.000364	0.000355	-	-
Nickel - Dissolved	mg/L		< 0.00050	< 0.00050	< 0.00050	-	-
Potassium - Dissolved	mg/L		0.753	1.21	1.22	-	-
Selenium - Dissolved	mg/L		< 0.000050	< 0.000050	< 0.000050	-	-
Sodium - Dissolved	mg/L		0.283	0.424	0.426	-	-
Thallium - Dissolved	mg/L		< 0.000010	< 0.000010	< 0.000010	-	-
Uranium - Dissolved	mg/L		0.000151	0.000594	0.000582	-	-
Zinc - Dissolved	mg/L		< 0.0010	< 0.0010	< 0.0010	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	-	0	-
Phenols	ug/L		< 1.0	< 1.0	< 1.0	-	-
Mean Mortality to Daphnia magna	%	50	-	< 1.0	-	-	-
Mean Mortality to Rainbow Trout	%	50	-	< 1.0	-	-	-
Phosphorus, Nutrient	mg/L		0.0045	0.0036	0.0030	-	-

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-MRY-13A

Sample ID			MS-MRY-13A	MS-MRY-13A	MS-MRY-13A	MS-MRY-13A
ALS Lab Sample ID			BF2300140	BF2300157	BF2300157	BF2300170
Sample Date			2023-07-10	2023-07-17	2023-07-17	2023-07-23
Sample Type			P	P	FB	P
Analyte	Units	Table 10 Criteria				
Conductivity	umhos/cm		559	-	-	-
pH, Lab	pH units	9.5	7.96	7.89	6.66	7.88
Total Suspended Solids	mg/L	15	< 1.0	< 1.0	< 1.0	< 1.0
Total Dissolved Solids	mg/L		350	411	< 18	487
Turbidity	NTU		0.49	0.28	0.64	0.36
Alkalinity, Total	mg/L		136	-	-	-
Dissolved Organic Carbon	mg/L		5.68	-	-	-
Total Organic Carbon	mg/L		4.40	-	-	-
Aluminum - Total	mg/L		0.0111	-	-	-
Antimony - Total	mg/L		0.00015	-	-	-
Arsenic - Total	mg/L	0.50	0.00019	-	-	-
Barium - Total	mg/L		0.0375	-	-	-
Cadmium - Total	mg/L		0.0000104	-	-	-
Calcium - Total	mg/L		46.9	-	-	-
Chromium - Total	mg/L		0.00060	-	-	-
Cobalt - Total	mg/L		0.00015	-	-	-
Copper - Total	mg/L	0.30	0.00154	-	-	-
Iron - Total	mg/L		0.020	-	-	-
Lead - Total	mg/L	0.20	< 0.000050	-	-	-
Lithium - Total	mg/L		0.0267	-	-	-
Magnesium - Total	mg/L		31.9	-	-	-
Manganese - Total	mg/L		0.00437	-	-	-
Mercury - Total	mg/L		< 0.0000050	-	-	-
Molybdenum - Total	mg/L		0.000529	-	-	-
Nickel - Total	mg/L	0.50	0.0110	-	-	-
Phosphorus, Total	mg/L		< 0.050	-	-	-
Potassium - Total	mg/L		3.95	-	-	-
Selenium - Total	mg/L		< 0.000050	-	-	-
Sodium - Total	mg/L		17.5	-	-	-
Strontium - Total	mg/L		0.0430	-	-	-
Thallium - Total	mg/L		0.000015	-	-	-
Tin - Total	mg/L		< 0.00010	-	-	-
Titanium - Total	mg/L		< 0.00060	-	-	-
Uranium - Total	mg/L		0.00193	-	-	-
Vanadium - Total	mg/L		< 0.00050	-	-	-
Zinc - Total	mg/L	0.50	0.0032	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	-	0
Phenols	ug/L		< 1.0	-	-	-
F1 (C6-C10)	ug/L		< 25	-	-	-
F2 (C10-C16)	ug/L		< 100	-	-	-
F3 (C16-C34)	ug/L		< 250	-	-	-
F4 (C34-C50)	ug/L		< 250	-	-	-
Total Petroleum Hydrocarbons (C6-C50)	ug/L		< 370	-	-	-

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-MRY-13B

		Sample ID	MS-MRY-13B
		ALS Lab Sample ID	BF2300170
		Sample Date	2023-07-23
		Sample Type	P
Analyte	Units	Table 10 Criteria	
Conductivity	umhos/cm		764
pH, Lab	pH units	9.5	7.97
Total Suspended Solids	mg/L	15	5.2
Total Dissolved Solids	mg/L		484
Turbidity	NTU		1.20
Alkalinity, Total	mg/L		170
Dissolved Organic Carbon	mg/L		5.52
Total Organic Carbon	mg/L		5.97
Aluminum - Total	mg/L		0.0317
Antimony - Total	mg/L		< 0.00100
Arsenic - Total	mg/L	0.50	< 0.00100
Barium - Total	mg/L		0.0418
Cadmium - Total	mg/L		< 0.0000500
Calcium - Total	mg/L		75.2
Chromium - Total	mg/L		< 0.00500
Cobalt - Total	mg/L		< 0.00100
Copper - Total	mg/L	0.30	< 0.00500
Iron - Total	mg/L		< 0.100
Lead - Total	mg/L	0.20	< 0.000500
Lithium - Total	mg/L		0.0432
Magnesium - Total	mg/L		40.9
Manganese - Total	mg/L		0.00423
Mercury - Total	mg/L		< 0.0000050
Molybdenum - Total	mg/L		< 0.000500
Nickel - Total	mg/L	0.50	0.0126
Phosphorus, Total	mg/L		< 0.500
Potassium - Total	mg/L		4.43
Selenium - Total	mg/L		< 0.000500
Sodium - Total	mg/L		22.2
Strontium - Total	mg/L		0.0938
Thallium - Total	mg/L		< 0.000100
Tin - Total	mg/L		< 0.00100
Titanium - Total	mg/L		< 0.00300
Uranium - Total	mg/L		0.00653
Vanadium - Total	mg/L		< 0.00500
Zinc - Total	mg/L	0.50	< 0.0300
Oil and Grease, Total	mg/L		< 5.0
Visible Sheen (100=Yes, 0=No)	None	99	0
Phenols	ug/L		< 1.0
F1 (C6-C10)	ug/L		< 25
F2 (C10-C16)	ug/L		< 100
F3 (C16-C34)	ug/L		< 250
F4 (C34-C50)	ug/L		< 250
Total Petroleum Hydrocarbons (C6-C50)	ug/L		< 370

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-A**

Sample ID ALS Lab Sample ID Sample Date Sample Type			MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A
			BF2300127	BF2300140	BF2300140	BF2300157	BF2300170
			2023-07-04	2023-07-10	2023-07-10	2023-07-17	2023-07-23
			P	P	FB	P	P
Analyte	Units	Table 9 Criteria					
Conductivity	umhos/cm		166	-	-	-	-
pH, Lab	pH units	9.5	7.74	7.70	6.98	7.84	7.81
Total Suspended Solids	mg/L	30	29.1	20.4	< 1.0	4.1	2.3
Total Dissolved Solids	mg/L		100	113	21	157	164
Turbidity	NTU		114	105	< 0.10	16.7	8.35
Ammonia, Total (as N)	mg/L		0.0107	-	-	-	-
Nitrate	mg/L		0.380	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	-	0	0

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-B**

			Sample ID	MS-C-B	MS-C-B	MS-C-B	MS-C-B
			ALS Lab Sample ID	BF2300127	BF2300140	BF2300157	BF2300170
			Sample Date	2023-07-04	2023-07-11	2023-07-17	2023-07-23
			Sample Type	P	P	P	P
Analyte	Units	Table 9 Criteria					
Conductivity	umhos/cm		168	-	-	-	-
pH, Lab	pH units	9.5	7.62	7.66	7.75	7.69	
Total Suspended Solids	mg/L	30	27.6	15.9	13.6	3.0	
Total Dissolved Solids	mg/L		118	113	157	168	
Turbidity	NTU		111	84.5	17.0	8.49	
Ammonia, Total (as N)	mg/L		0.0101	-	-	-	
Nitrate	mg/L		0.383	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-C

			Sample ID	MS-C-C	MS-C-C	MS-C-C
			ALS Lab Sample ID	BF2300140	BF2300157	BF2300170
			Sample Date	2023-07-10	2023-07-17	2023-07-23
			Sample Type	P	P	P
Analyte	Units	Table 9 Criteria				
Conductivity	umhos/cm		893	-	-	
pH, Lab	pH units	9.5	7.88	7.88	7.97	
Total Suspended Solids	mg/L	30	3.4	< 1.0	3.8	
Total Dissolved Solids	mg/L		567	582	650	
Turbidity	NTU		4.06	1.87	6.60	
Ammonia, Total (as N)	mg/L		0.0129	-	-	
Nitrate	mg/L		4.64	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-D

			Sample ID	MS-C-D	MS-C-D	MS-C-D	MS-C-D
			ALS Lab Sample ID	BF2300127	BF2300140	BF2300157	BF2300170
			Sample Date	2023-07-03	2023-07-10	2023-07-17	2023-07-23
			Sample Type	P	P	P	P
Analyte	Units	Table 9 Criteria					
Conductivity	umhos/cm		1120	-	-	-	-
pH, Lab	pH units	9.5	8.37	8.43	8.39	8.32	
Total Suspended Solids	mg/L	30	7.9	10.5	1.7	3.5	
Total Dissolved Solids	mg/L		698	664	641	633	
Turbidity	NTU		6.51	12.5	4.22	5.23	
Ammonia, Total (as N)	mg/L		0.103	-	-	-	
Nitrate	mg/L		3.57	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0	

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-E

Sample ID ALS Lab Sample ID Sample Date Sample Type			MS-C-E	MS-C-E	MS-C-E	MS-C-E
			BF2300127	BF2300140	BF2300157	BF2300170
			2023-07-03	2023-07-10	2023-07-17	2023-07-23
			P	P	P	P
Analyte	Units	Table 9 Criteria				
Conductivity	umhos/cm		874	-	-	-
pH, Lab	pH units	9.5	8.11	8.08	8.05	7.96
Total Suspended Solids	mg/L	30	15.3	1.0	< 1.0	< 1.0
Total Dissolved Solids	mg/L		516	498	612	563
Turbidity	NTU		3.73	2.02	1.58	2.42
Ammonia, Total (as N)	mg/L		0.0230	-	-	-
Nitrate	mg/L		2.60	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0

Notes:
Highlight indicate result exceeded applicable criteria.
Half value used in monthly average when value is less than detection limit.
pH criteria is a range;6.0-9.5.
Sample Type:
P-Permitted
FD-Field Duplicate
FB-Field Blank
TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-F**

			Sample ID	MS-C-F	MS-C-F	MS-C-F	MS-C-F
			ALS Lab Sample ID	BF2300127	BF2300140	BF2300157	BF2300170
			Sample Date	2023-07-04	2023-07-11	2023-07-17	2023-07-23
			Sample Type	P	P	P	P
Analyte	Units	Table 9 Criteria					
Conductivity	umhos/cm		166	-	-	-	-
pH, Lab	pH units	9.5	7.60	7.86	7.91	7.91	7.91
Total Suspended Solids	mg/L	30	-	-	26.5	11.6	
Total Suspended Solids	mg/L	30	68.8	72.6	-	-	
Total Dissolved Solids	mg/L		102	136	160	188	
Turbidity	NTU		183	193	52.5	27.6	
Ammonia, Total (as N)	mg/L		0.0276	-	-	-	
Nitrate	mg/L		0.372	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-G**

			Sample ID	MS-C-G	MS-C-G	MS-C-G	MS-C-G	MS-C-G	MS-C-G	MS-C-G
			ALS Lab Sample ID	BF2300127	BF2300140	BF2300140	BF2300157	BF2300157	BF2300170	BF2300170
			Sample Date	2023-07-04	2023-07-10	2023-07-10	2023-07-17	2023-07-17	2023-07-23	2023-07-23
			Sample Type	P	P	FD	P	FD	P	FD
Analyte	Units	Table 9 Criteria								
Conductivity	umhos/cm		133	-	-	-	-	-	-	-
pH, Lab	pH units	9.5	7.63	7.79	7.60	7.55	7.61	7.66	7.55	
Total Suspended Solids	mg/L	30	< 1.5	< 1.0	< 1.0	< 1.4	< 1.0	< 1.0	< 1.0	
Total Dissolved Solids	mg/L		54	76	82	88	96	111	100	
Turbidity	NTU		2.20	2.02	2.05	0.12	0.39	0.67	0.15	
Alkalinity, Total	mg/L		-	-	-	-	-	-	-	
Ammonia, Total (as N)	mg/L		0.0152	-	-	-	-	-	-	
Nitrate	mg/L		0.624	-	-	-	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	0	-	0	-	0	-	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MS-C-H**

Sample ID ALS Lab Sample ID Sample Date Sample Type			MS-C-H	MS-C-H	MS-C-H	MS-C-H
			BF2300127	BF2300140	BF2300157	BF2300170
			2023-07-03	2023-07-10	2023-07-17	2023-07-23
			P	P	P	P
Analyte	Units	Table 9 Criteria				
Conductivity	umhos/cm		255	-	-	-
pH, Lab	pH units	9.5	7.99	7.84	7.94	7.95
Total Suspended Solids	mg/L	30	4.1	< 1.0	< 1.0	< 1.3
Total Dissolved Solids	mg/L		117	134	137	136
Turbidity	NTU		0.65	0.37	0.29	0.45
Ammonia, Total (as N)	mg/L		0.0230	-	-	-
Nitrate	mg/L		1.40	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MQ-C-A**

			Sample ID	MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A
			ALS Lab Sample ID	BF2300127	BF2300127	BF2300140	BF2300157	BF2300170
			Sample Date	2023-07-03	2023-07-03	2023-07-10	2023-07-17	2023-07-23
			Sample Type	P	FB	P	P	P
Analyte	Units	Table 9 Criteria (Quarry)						
Conductivity	umhos/cm		90.3	< 1.0	-	-	-	-
pH, Lab	pH units	9.5	7.96	6.86	7.84	7.96	7.93	
Total Suspended Solids	mg/L	30	< 1.5	< 1.6	< 1.0	< 1.0	1.7	
Total Dissolved Solids	mg/L		25	< 20	61	85	116	
Turbidity	NTU		2.19	0.46	2.24	0.56	1.11	
Ammonia, Total (as N)	mg/L		0.0058	< 0.0050	-	-	-	
Nitrate	mg/L		< 0.020	< 0.020	-	-	-	
Oil and Grease, Total	mg/L		< 5.0	< 5.0	-	-	-	
Visible Sheen (100=Yes, 0=No)	None	99	0	-	0	0	0	

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MQ-C-B**

Sample ID ALS Lab Sample ID Sample Date Sample Type			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B
			BF2300127	BF2300140	BF2300157	WT2319993
			2023-07-03	2023-07-10	2023-07-17	2023-07-23
			P	P	P	P
Analyte	Units	Table 9 Criteria (Quarry)				
Conductivity	umhos/cm		184	-	-	-
pH, Lab	pH units	9.5	7.71	7.89	7.90	7.95
Total Suspended Solids	mg/L	30	-	17.7	3.0	3.0
Total Suspended Solids	mg/L	30	292	-	-	-
Total Dissolved Solids	mg/L		174	102	152	180
Turbidity	NTU		319	42.7	12.1	8.46
Ammonia, Total (as N)	mg/L		0.0933	-	-	-
Nitrate	mg/L		1.11	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	0	0	0
Mean Mortality to Daphnia magna	%	50	< 1.0	-	-	-
Mean Mortality to Rainbow Trout	%	50	< 1.0	-	-	-

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



**Table 2 : Water Quality Results for Water Licence
Monitoring Location - MQ-C-D**

			Sample ID	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D
			ALS Lab Sample ID	BF2300127	BF2300127	BF2300140	BF2300157	BF2300170
			Sample Date	2023-07-03	2023-07-03	2023-07-10	2023-07-17	2023-07-23
			Sample Type	P	FD	P	P	P
Analyte	Units	Table 9 Criteria (Quarry)						
Conductivity	umhos/cm		124	122	-	-	-	-
pH, Lab	pH units	9.5	7.69	7.74	7.84	7.82	7.84	7.84
Total Suspended Solids	mg/L	30	5.9	5.7	5.5	2.3	< 1.0	< 1.0
Total Dissolved Solids	mg/L		54	58	83	95	102	102
Turbidity	NTU		19.4	19.0	19.7	10.5	7.92	7.92
Ammonia, Total (as N)	mg/L		0.0111	0.0102	-	-	-	-
Nitrate	mg/L		0.098	0.101	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	< 5.0	-	-	-	-
Visible Sheen (100=Yes, 0=No)	None	99	0	-	0	0	0	0

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank

Table 3.1: Flow and Volume Measurements - Part I Item 11 - July 2023

DATE	Camp Lake Freshwater for Domestic Use - Daily Water MS-MRY-1 (m ³)	Camp Lake Freshwater for Industrial Use - Daily Water MS-MRY-1 (m ³)	Treated Sewage Effluent from MS-01 to Discharge Location #1 (m ³)	Treated Sewage Effluent from MS-01B to Discharge Location #1 (m ³)	Sewage Sludge Removed from Mine Site WWTPs to Incinerator or Disposal Offsite by Backhaul (m ³)	Sewage Sludge/Off- Spec Effluent Removed from Mine Site WWTPs to PWSP at Mine Site (m ³)	Sewage Sludge Removed from Lift Stations to PWSP at Mine Site (m ³)	Km 32 Lake Milne Port Camp Daily Water Use for Domestic Purposes MP- MRY-3 (m ³)	Km 32 Lake Milne Port Camp Daily Water Use for Industrial Purposes MP- MRY-3 (m ³)	Treated Sewage Effluent from MP 01 to Milne Inlet (m ³)	Treated Sewage Effluent from MP 01B to Milne Inlet (m ³)	Sewage Sludge Removed from Milne Port WWTPs to Incinerator or Disposal Offsite by Backhaul (m ³)
1-Jul-23	121.0	15.7	0.0	127.0	1.7	0.0	0.0	54.6	0.0	25.0	22.4	0.8
2-Jul-23	108.1	4.1	0.0	116.8	1.7	0.0	0.0	55.7	0.0	25.0	20.2	0.7
3-Jul-23	124.6	16.8	0.0	125.4	1.7	17.0	13.0	62.3	0.0	29.0	22.5	0.8
4-Jul-23	145.3	14.5	0.0	104.7	1.1	0.0	0.0	60.8	0.0	28.0	27.9	0.5
5-Jul-23	123.9	4.9	0.0	129.1	1.7	0.0	0.0	66.0	0.0	29.0	24.1	1.0
6-Jul-23	128.5	23.5	0.0	115.1	0.9	0.0	0.0	73.6	0.0	30.0	25.8	0.8
7-Jul-23	108.0	1.0	0.0	110.6	0.4	0.0	0.0	35.8	2.0	25.0	25.9	0.8
8-Jul-23	100.9	11.8	0.0	100.7	0.4	0.0	0.0	56.2	2.0	24.0	22.3	0.8
9-Jul-23	115.2	8.9	0.0	104.5	0.0	0.0	0.0	70.9	2.0	24.0	24.2	0.8
10-Jul-23	91.9	14.6	0.0	105.7	0.3	0.0	0.0	47.2	8.0	26.0	22.9	0.7
11-Jul-23	125.4	10.9	0.0	108.5	0.5	0.0	0.0	53.3	0.0	27.0	25.1	0.8
12-Jul-23	152.1	14.4	0.0	119.5	0.0	0.0	0.0	85.7	0.0	30.0	25.1	0.2
13-Jul-23	114.6	0.0	0.0	124.8	0.3	0.0	0.0	38.1	0.0	26.0	24.2	0.4
14-Jul-23	115.1	0.0	0.0	113.0	0.3	0.0	0.0	52.9	1.0	30.0	23.8	0.0
15-Jul-23	110.9	3.1	0.0	48.8	0.6	0.0	0.0	60.5	0.0	35.0	25.4	0.0
16-Jul-23	131.1	0.0	0.0	92.6	1.0	0.0	0.0	38.2	0.0	42.0	24.2	0.0
17-Jul-23	121.5	15.0	0.0	115.7	1.2	0.0	0.0	43.1	0.0	44.0	22.5	0.4
18-Jul-23	120.4	4.1	0.0	120.7	1.5	0.0	0.0	96.6	0.0	46.0	22.5	0.9
19-Jul-23	125.2	17.1	0.0	126.1	1.3	0.0	0.0	70.2	2.0	50.0	28.2	0.5
20-Jul-23	121.3	0.0	0.0	112.9	1.7	0.0	0.0	52.9	0.0	49.0	27.2	0.9
21-Jul-23	142.1	7.2	0.0	127.6	1.7	0.0	0.0	42.6	0.0	50.0	27.2	0.7
22-Jul-23	101.2	0.0	0.0	127.0	1.3	0.0	0.0	43.9	0.0	51.0	22.1	0.3
23-Jul-23	134.7	4.2	0.0	59.9	1.7	0.0	0.0	44.9	0.0	53.0	24.5	0.0
24-Jul-23	130.5	2.3	0.0	110.3	1.7	0.0	0.0	23.8	0.0	49.0	28.3	0.4
25-Jul-23	121.1	4.6	0.0	139.0	1.7	0.0	0.0	57.7	3.5	32.0	28.5	0.3
26-Jul-23	123.4	0.0	0.0	123.8	1.7	0.0	0.0	67.8	3.0	25.0	27.4	0.0
27-Jul-23	140.0	5.2	0.0	119.7	2.1	0.0	0.0	45.2	0.0	24.0	25.2	0.0
28-Jul-23	136.8	3.4	0.0	130.4	2.1	0.0	26.0	20.4	2.0	24.0	28.0	0.0
29-Jul-23	110.2	19.6	0.0	54.3	1.7	0.0	0.0	76.2	0.0	16.0	26.3	0.3
30-Jul-23	114.3	10.4	0.0	102.6	1.7	0.0	0.0	48.9	0.0	23.0	26.3	0.3
31-Jul-23	130.3	0.0	0.0	119.5	1.7	0.0	0.0	58.1	2.0	24.0	29.2	0.3
Total	3,789.6	237.3	0.0	3,436.3	37.4	17.0	39.0	1,703.8	27.5	1,015.0	779.6	14.2

Notes:

- WWTP - Waste Water Treatment Plant
- PWSP - Polishing Waste Stabilization Pond
- MS-11 Volume Estimated from Hydrology Station at MS-C-A/B (Installed June 22)

Table 3.1: Flow and Volume Measurements - Part I Item 11 - July 2023

DATE	Sewage Sludge Removed from Lift Stations to PWSP at Milne Port (m ³)	Sludge Removed from Milne Port WWTPs/WTPs to PWSP at Milne Port (m ³)	Water Use for Dust Suppression from Authorized Sources (m ³)	Effluent Discharge from Mine Site Waste Rock Stockpile Pond (MS-08) (m ³)	Effluent Discharge from KM105 Surface Water Management Pond (VIS-11) (m ³)	Effluent Discharge from Milne Port Ore Stockpile Sedimentation Pond (East) to Milne Inlet (MP-05) (m ³)	Effluent Discharge from Milne Port Ore Stockpile Sedimentation Pond (West) to Milne Inlet (MP-06) (m ³)	Effluent Discharge from Milne Port Bulk Fuel Tank Farm Facility to Milne Inlet (MP-03) (m ³)
1-Jul-23	0.0	0.0	90.8	0.0	12,182.6	0.0	0.3	0.0
2-Jul-23	0.0	0.0	60.6	0.0	12,844.5	0.0	0.0	0.0
3-Jul-23	0.0	0.0	0.0	0.0	10,453.2	0.0	0.0	0.0
4-Jul-23	0.0	0.0	545.0	0.0	7,554.2	26.0	30.8	0.0
5-Jul-23	0.0	0.0	212.0	0.0	6,023.6	0.0	1.7	0.0
6-Jul-23	0.0	0.0	345.3	0.0	5,801.6	0.0	0.0	0.0
7-Jul-23	0.0	0.0	30.3	0.0	8,271.1	0.0	0.0	0.0
8-Jul-23	0.0	0.0	302.8	0.0	7,866.8	394.0	424.7	0.0
9-Jul-23	0.0	0.0	696.4	0.0	9,986.4	117.8	211.8	0.0
10-Jul-23	0.0	0.0	635.9	0.0	8,665.7	250.0	533.3	0.0
11-Jul-23	0.0	0.0	242.2	1,626.0	7,698.3	426.0	301.3	0.0
12-Jul-23	0.0	0.0	302.8	3,294.0	7,651.9	0.0	0.0	0.0
13-Jul-23	0.0	0.0	121.1	4,626.0	7,280.9	0.0	0.0	0.0
14-Jul-23	0.0	0.0	242.2	4,978.0	6,738.7	0.0	0.0	0.0
15-Jul-23	0.0	0.0	302.8	4,722.0	5,649.0	0.0	509.6	0.0
16-Jul-23	0.0	0.0	423.9	3,779.0	5,284.8	0.0	0.0	0.0
17-Jul-23	0.0	0.0	545.0	3,553.0	4,616.0	0.0	0.0	0.0
18-Jul-23	0.0	0.0	242.2	4,745.0	7,561.1	0.0	0.0	0.0
19-Jul-23	0.0	0.0	242.2	4,267.0	5,260.1	0.0	0.0	0.0
20-Jul-23	0.0	0.0	454.2	5,738.0	3,985.2	0.0	0.0	0.0
21-Jul-23	0.0	0.0	454.2	5,631.0	3,811.4	0.0	0.0	0.0
22-Jul-23	0.0	0.0	696.4	6,013.0	3,203.1	0.0	0.0	8.3
23-Jul-23	0.0	0.0	938.7	5,811.0	2,649.4	0.0	0.0	95.4
24-Jul-23	0.0	0.0	272.5	5,732.0	2,422.7	0.0	0.0	101.2
25-Jul-23	2.8	0.0	908.4	5,705.0	2,353.3	0.0	0.0	74.5
26-Jul-23	0.0	0.0	999.2	5,641.0	2,200.0	0.0	0.0	2.7
27-Jul-23	0.0	0.0	605.6	5,511.0	2,022.1	0.0	0.0	0.0
28-Jul-23	0.0	0.0	454.2	4,931.0	1,897.7	0.0	0.0	0.0
29-Jul-23	0.0	0.0	1271.8	5,538.0	1,771.1	0.0	0.0	0.0
30-Jul-23	0.0	0.0	999.2	5,179.0	1,639.4	0.0	0.0	0.0
31-Jul-23	0.0	0.0	969.0	4,715.0	1,514.4	0.0	0.0	0.0
Total	2.8	0.0	14,607.2	101,735.0	176,860.2	1,213.8	2,013.4	282.1

Notes:
WWTP - Waste Water Treatment Plant
PWSP - Polishing Waste Stabilization Pond
MS-11 Volume Estimated from Hydrology Station at MS-C-A/B (Installed June 22)