

June 30, 2018

Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0 Water Resources Officer, INAC Nunavut District, Nunavut Region P.O. Box 100 Igaluit, NU X0A 0H0

RE: Water Licence 2AM-MRY1325 Monthly SNP Report - May 2018

The following is the monthly report for May 2018 as required under Part I, Item 21 Water Licence 2AM-MRY1325. Part I, Item 21 of the above referenced Water Licence 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 identified area of non-compliance with regulated discharge parameters referred to in Part F"

Monitoring Program

During the month of May 2018, water samples were collected as part of the Water Licence Monitoring Program.

Table 1 presents a list of samples/monitoring required under the Water Licences and the details concerning which water quality samples were collected along with sample date/laboratory identification number as appropriate. Analytical water quality testing results received are presented in Table 2. Volumes consumed for domestic and industrial water purposes and the volumes of effluent discharged at the Mary River Mine Site and Milne Port Camp are presented in the attached Table 3.

Monitoring Program Results

A) Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Monitoring Program sampling requirements for May 2018.

B) Flow and Volume Measurements

Table 3 provides a breakdown of volume measurements as requested in Part I, Item 9 of the Water Licence for May 2018.

We trust that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact myself, Connor Devereaux (ext. 6010), or Timothy Ray Sewell at 416.364.8820 ext. 6054.

Regards.

William Bowden

Environmental Superintendent

Reviewed by:

Timothy Ray Sewell

Head of Health, Safety and Environment

Attach: Tables 1, 2, and 3

Cc: Jonathon Mesher, Ian Parsons (INAC); Grant Goddard, William Napier, Megan Lord-Hoyle, Timothy Ray Sewell, Sylvain Proulx, Gerald Rogers, Francois Gaudrau, William Bowden (Baffinland); Stephen Bathory (QIA);

Table 1: Monitoring Program Water Sampling Summary for May 2018

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			-
MP-01 (Sewage Treatment Facility)	5/1/2018	L2088476-1	Discharge volume reported daily
MP-0103 (Travel Blank of MP-01)	N/A	N/A	
MP-MRY-3 (Freshwater Intake from Km 32 Lake - Winter)	N/A	N/A	Volume reported daily during discharge
MP-MRY-04 (RBC at Exploration Camp)	N/A	N/A	Facility Inactive
MP-03 (Bulk Fuel Storage Facility Stormwater)	N/A	N/A	Volume reported daily during discharge
MP-04 (Landfarm Facility & Snow Containment Facility)	N/A	N/A	Volume reported daily during discharge
MP-05 (Ore Stockpile Sedimentation Pond (East)	N/A	N/A	Volume reported daily during discharge
MP-06 (Ore Stockpile Sedimentation Pond (West)	N/A	N/A	Volume reported daily during discharge
MP-MRY-12 (Bulk Sample Stockpile Area Seepage)	N/A	N/A	No flow, location is being retired due to lack of flow
MP-C-A (Downstream of Construction Area)	N/A	N/A	No flow, location is being retired due to lack of flow
MP-C-B (Downstream of Construction Area)	N/A	N/A	No flow during month of May
MP-C-B01 (Downstream of Construction Area)	N/A	N/A	No flow during month of May
MP-C-D (Downstream of Construction Area)	N/A	N/A	No flow, location is being retired due to lack of flow.
MP-C-E (Downstream of Construction Area)	N/A	N/A	No flow, location is being retired due to lack of flow.
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow during month of May
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow during month of May
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of May
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of May

Mary River Mine Site		1	1
MS-01 (Sewage Treatment Facility)	5/1/2018	L2088449-1	Discharge volume reported daily
MS-01b (Sewage Treatment Facility)	5/9/2018	L2092874-1	Discharge volume reported daily
MS-MRY-1 (Freshwater Intake Camp Lake)	N/A	N/A	Withdrawal volume reported daily
MS-MRY-04a	N/A	N/A	
MS-MRY-04b	N/A	N/A	
MS-MRY-04c	N/A	N/A	
MS-03 (Milne Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	Volume reported daily during discharge
MS-06 (Ore Stockpile Pond Stormwater)	N/A	N/A	Volume reported daily during discharge
MS-08 (Mine Waste Rock Stockpile pond)	N/A	N/A	Volume reported daily during discharge
MS-MRY-6 (Exploration Camp Bladder Farm Stormwater)	N/A	N/A	Volume reported daily during discharge
MS-MRY-09 (Bulk Sample Pit)	N/A	N/A	No flow during month of May
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow during month of May
MS-MRY-11 (Processing Bulk Sample Stockpile)	N/A	N/A	Area is being retired due to lack of flows
MS-MRY-13A (Downstream Non-Hazardous Landfill)	5/21/2018 5/28/2018	L2098315-7 L2101788-6	
MS-MRY-13B (Downstream Non-Hazardous Landfill)	5/21/2018 5/28/2018 5/28/2018	L2098315-8 L2101788-7 L2101788-9	
MS-C-A (Downstream of Construction and Borrow Areas)	5/21/2018 5/28/2018	L2098315-1 L2101788-1	
MS-C-B (Downstream of Construction and Borrow Areas)	5/21/2018 5/28/2018	L2098315-2 L2101788-2	
MS-C-B01 (Dulplicate of MS-C-B)	5/21/2018	L2098315-3	
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of May
MS-C-D (Downstream of Construction and Borrow Areas)	5/21/2018 5/28/2018	L2098315-6 L2101788-5	
MS-C-E (Downstream of Construction and Borrow Areas)	5/21/2018 5/28/2018	L2098315-5 L2101788-4	

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MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of May
MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of May
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of May
MQ-C-A (Downstream of QMR2 Quarry)	5/29/2018 5/29/2018	L2103396-1 236287	
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of May
MQ-C-D (Downstream of QMR2 Quarry)	5/21/2018 5/28/2018	L2098315-4 L2101788-3	
MQ-C-E (Downstream of QMR2 Quarry)	5/21/2018 5/28/2018	L2098315-9 L2101788-8	
Steensby Port	1	•	•
Steensby Exploration Camp is presently not active.	N/A	N/A	

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-01

Analyte	,	Sam ALS Laborat Sample D	MP-01 L2088476-1 5/1/2018 1:45:00 PM	
Allalyte		QA/QC Sa	N/A	
	Units	LOR		
рН	pH units	0.1	6.0 - 9.5	7.81
Total Suspended Solids	mg/L	2	<120	2.1
Alkalinity, Total (as CaCO3)	mg/L	10	-	128
Ammonia, Total (as N)	mg/L	0.02	-	0.101
Total Kjeldahl Nitrogen	mg/L	0.15	-	1.8
Phosphorus, Total	mg/L	0.003	-	6.47
Fecal Coliforms	CFU/100mL	0	10,000	0
BOD	mg/L	2	100	<2.0
COD	mg/L	10	-	31
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

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

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-01

		Sam ALS Laborate	MS-01 L2088449-1	
Analyte		•	ate & Time	5/1/2018 3:00:00 PM
		QA/QC Sa	mple Type	N/A
	Units	LOR	Water Licence Criteria ¹	
рН	pH units	0.1	6.0 - 9.5	7.59
Total Suspended Solids	mg/L	2	35	2.2
Alkalinity, Total (as CaCO3)	mg/L	10	-	74
Ammonia, Total (as N)	mg/L	0.02	4	1.16
Total Kjeldahl Nitrogen	mg/L	0.15	-	4.12
Phosphorus, Total	mg/L	0.003	4	0.853
Fecal Coliforms	CFU/100mL	0	1,000	1
BOD	mg/L	2	30	2.6
COD	mg/L	10	-	37
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

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

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-01

		Sam ALS Laborat	MS-01B L2092874-1	
Analyte			ate & Time	5/9/2018 2:30:00 PM
,		QA/QC Sa	mple Type	N/A
	Units	LOR		
рН	pH units	0.1	6.0 - 9.5	7.74
Total Suspended Solids	mg/L	2	35	<2.0
Alkalinity, Total (as CaCO3)	mg/L	10	-	47
Ammonia, Total (as N)	mg/L	0.02	4	<0.020
Total Kjeldahl Nitrogen	mg/L	0.15	-	1.58
Phosphorus, Total	mg/L	0.003	4	1.65
Fecal Coliforms	CFU/100mL	0	1,000	0
BOD	mg/L	2	30	<2.0
COD	mg/L	10	-	25
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

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

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-13A

	ΔΙ	Sample S Laboratory		MS-MRY-13A L2098315-7	MS-MRY-13A L2101788-6	
	ALS Laboratory Sample ID Sample Date & Time QA/QC Sample Type			5/21/2018 6:35:00 PM	5/28/2018 9:40:00 AM	
Analyte				N/A	N/A	
				N/A	N/A	
	Units	LOR	Criteria ¹			
Conductivity	umhos/cm	3	-	74.5	-	
рН	pH units	0.1	6.0 - 9.5	7.53	7.25	
Total Suspended Solids	mg/L	2	15	14.8	<2.0	
Total Dissolved Solids	mg/L	10	-	50	27	
Turbidity	NTU	0.1	-	-	11	
Alkalinity, Total (as CaCO3)	mg/L	10	-	21	-	
Dissolved Organic Carbon	mg/L	1	-	3.7	-	
Total Organic Carbon	mg/L	1	-	4.4	-	
Aluminum (Al)-Total	mg/L	0.005	-	0.825	-	
Antimony (Sb)-Total	mg/L	0.0001	-	0.00041	-	
Arsenic (As)-Total	mg/L	0.0001	0.5	0.00026	-	
Barium (Ba)-Total	mg/L	0.0002	-	0.00881	-	
Beryllium (Be)-Total	mg/L	0.0001	-	<0.00010	-	
Bismuth (Bi)-Total	mg/L	0.00005	-	<0.000050	-	
Boron (B)-Total	mg/L	0.01	-	0.013	<u>-</u>	
Cadmium (Cd)-Total	mg/L	0.00001	-	0.000013	-	
Calcium (Ca)-Total	mg/L	0.5	-	5.86	-	
Cesium (Cs)-Total	mg/L	0.00001	-	0.000105	-	
Chromium (Cr)-Total	mg/L	0.0005	-	0.00216	-	
Cobalt (Co)-Total	mg/L	0.0001	-	0.00099	-	
Copper (Cu)-Total	mg/L	0.001	0.3	0.0026	-	
Iron (Fe)-Total	mg/L	0.05	-	1.37	-	
Lead (Pb)-Total	mg/L	0.00005	0.2	0.000868	-	
Lithium (Li)-Total	mg/L	0.001	-	0.0027	-	
Magnesium (Mg)-Total	mg/L	0.05	-	4.36	-	
Manganese (Mn)-Total	mg/L	0.0005	-	0.038	-	
Mercury (Hg)-Total	mg/L	0.00001	-	<0.000010	-	
Molybdenum (Mo)-Total	mg/L	0.00005	-	0.000652	-	
Nickel (Ni)-Total	mg/L	0.0005	0.5	0.005	-	
Phosphorus (P)-Total	mg/L	0.05	-	<0.050	-	
Potassium (K)-Total	mg/L	0.05	-	1.48	-	
Rubidium (Rb)-Total	mg/L	0.0002	-	0.0038	-	
Selenium (Se)-Total	mg/L	0.00005	-	0.000062	-	
Silicon (Si)-Total	mg/L	0.1	-	1.77	•	
Silver (Ag)-Total	mg/L	0.00005	-	<0.00050	-	
Sodium (Na)-Total	mg/L	0.5	-	0.757	-	
Strontium (Sr)-Total	mg/L	0.001	-	0.0072	-	
Sulfur (S)-Total	mg/L	0.5	-	3.35	-	
Tellurium (Te)-Total	mg/L	0.0002	-	<0.00020	-	
Thallium (Tl)-Total	mg/L	0.00001	-	0.000018	-	
Thorium (Th)-Total	mg/L	0.0001	-	0.00046	-	
Tin (Sn)-Total	mg/L	0.0001	-	<0.00010	-	
Titanium (Ti)-Total	mg/L	0.0003	=	0.0274	-	
Tungsten (W)-Total	mg/L	0.0001	-	<0.00010	-	
Uranium (U)-Total	mg/L	0.00001	-	0.000271	-	
Vanadium (V)-Total	mg/L	0.0005	-	0.00134	-	
Zinc (Zn)-Total	mg/L	0.003	0.5	0.0057	-	
Zirconium (Zr)-Total	mg/L	0.0003	-	0.00047	-	
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	
Phenols (4AAP)	mg/L	0.001	-	<0.0010	-	
F1 (C6-C10)	ug/L	100	-	<100	-	
F2 (C10-C16)	ug/L	100	-	<100	-	
F3 (C16-C34)	ug/L	250	-	<250	-	
F4 (C34-C50)	ug/L	250	-	<250	-	
otal Hydrocarbons (C6-C50)	ug/L	380	-	<380	1	
Chrom. to baseline at nC50		n/a	-	YES	-	
2-Bromobenzotrifluoride	%	Surrogate	-	88.5	-	
3,4-Dichlorotoluene	%	Surrogate	-	103.1	-	

Notes:

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Effluent Quality Discharge Limits for the Landfill Facilities

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-13B

	AL	Sample S Laboratory	Sample ID	MS-MRY-13B L2098315-8	MS-MRY-13B L2101788-7	MS-MRY-13B01 L2101788-9
Analyte		Sample Date		5/21/2018 6:00:00 PM	5/28/2018 9:25:00 AM	5/28/2018 9:25:00 AM
		QA/QC Samp	le Type	N/A	N/A	Duplicate
	Units	LOR	Criteria ¹			
Conductivity	umhos/cm	3	-	317	-	-
рН	pH units	0.1	6.0 - 9.5	7.73	7.56	7.53
Total Suspended Solids	mg/L	2	15	20	2.4	<2.0
Total Dissolved Solids	mg/L	10	-	190	55	59
Turbidity	NTU	0.1	_	-	14.9	15.2
Alkalinity, Total (as CaCO3)	mg/L	10	-	38		-
Dissolved Organic Carbon	mg/L	1	-	10.3	-	_
Total Organic Carbon	mg/L	1	_	11.9	_	-
Aluminum (AI)-Total	mg/L	0.005	-	0.316	-	-
Antimony (Sb)-Total	mg/L	0.0001	-	0.00025	<u>-</u>	_
Arsenic (As)-Total	mg/L	0.0001	0.5	0.00018	-	-
Barium (Ba)-Total	mg/L	0.0001	-	0.0168	<u> </u>	-
Beryllium (Be)-Total		0.0002	-	<0.0010		<u>-</u>
Bismuth (Bi)-Total	mg/L mg/L	0.0001	-	<0.00010	-	
Boron (B)-Total	mg/L	0.00005	-	0.00	<u> </u>	-
Cadmium (Cd)-Total	mg/L	0.00001	-	0.00001	<u> </u>	-
Calcium (Ca)-Total	mg/L	0.5	-	19.2	-	-
Cesium (Cs)-Total	mg/L	0.00001	-	0.000033	-	-
Chromium (Cr)-Total	mg/L	0.0005	-	0.00083	-	-
Cobalt (Co)-Total	mg/L	0.0001	-	0.00065	-	-
Copper (Cu)-Total	mg/L	0.001	0.3	0.002	-	-
Iron (Fe)-Total	mg/L	0.05	-	0.623	-	-
Lead (Pb)-Total	mg/L	0.00005	0.2	0.000287	-	-
Lithium (Li)-Total	mg/L	0.001	-	0.0091	-	_
Magnesium (Mg)-Total	mg/L	0.05	-	13	_	-
Manganese (Mn)-Total	mg/L	0.0005	_	0.0463		_
Mercury (Hg)-Total	mg/L	0.00001	_	<0.00010		_
Molybdenum (Mo)-Total	mg/L	0.00001	-	0.00063	<u> </u>	-
Nickel (Ni)-Total	mg/L	0.0005	0.5	0.00444		-
Phosphorus (P)-Total	mg/L	0.005	-	<0.050	<u> </u>	-
		0.05		3.19		<u>-</u>
Potassium (K)-Total	mg/L	0.0002	-		-	
Rubidium (Rb)-Total	mg/L		-	0.00478	-	-
Selenium (Se)-Total	mg/L	0.00005	=	0.000141	=	-
Silicon (Si)-Total	mg/L	0.1	-	1.06	-	-
Silver (Ag)-Total	mg/L	0.00005	=	<0.000050	-	-
Sodium (Na)-Total	mg/L	0.5	-	2.8	-	-
Strontium (Sr)-Total	mg/L	0.001	-	0.0186	-	-
Sulfur (S)-Total	mg/L	0.5	-	9.17	-	-
Tellurium (Te)-Total	mg/L	0.0002	-	<0.00020	-	-
Thallium (TI)-Total	mg/L	0.00001	-	0.000012	<u>-</u>	-
Thorium (Th)-Total	mg/L	0.0001	-	0.0001	=	-
Tin (Sn)-Total	mg/L	0.0001	-	<0.00010	-	-
Titanium (Ti)-Total	mg/L	0.0003	-	0.012	=	-
Tungsten (W)-Total	mg/L	0.0001	-	<0.00010	-	-
Uranium (U)-Total	mg/L	0.00001	-	0.000362	-	-
Vanadium (V)-Total	mg/L	0.0005	-	<0.00050	-	-
Zinc (Zn)-Total	mg/L	0.003	0.5	<0.0030	-	-
Zirconium (Zr)-Total	mg/L	0.0003	No Visible Chas	<0.00030	-	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	-
Phenols (4AAP)	mg/L	0.001	-	0.0011	-	-
F1 (C6-C10)	ug/L	100	-	<100	-	-
F2 (C10-C16)	ug/L	100	-	<100	-	-
F3 (C16-C34)	ug/L	250	-	<250	-	-
F4 (C34-C50)	ug/L	250	-	<250	=	-
otal Hydrocarbons (C6-C50)	ug/L	380	-	<380	-	-
Chrom. to baseline at nC50		n/a	-	YES	-	-
2-Bromobenzotrifluoride	%	Surrogate	-	95	-	-
3,4-Dichlorotoluene	%	Surrogate	-	97.3	-	-

Notes:

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Effluent Quality Discharge Limits for the Landfill Facilities

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-A

		Sam	ple ID	MS-C-A	MS-C-A
		ALS Laborat	ory Sample ID	L2098315-1	L2101788-1
Analyte	Sample Date & Time			5/21/2018 3:20:00 PM	5/28/2018 11:25:00 AM
		QA/QC Sa	ample Type	N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	74.7	-
рН	pH units	0.1	6.0 - 9.5	7.37	7.43
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	5.2	2.4
Total Dissolved Solids	mg/L	10	-	-	45
Turbidity	NTU	0.1	-	-	16.4
Ammonia, Total (as N)	mg/L	0.02	-	0.029	-
Nitrate (as N)	mg/L	0.02	-	0.15	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-B

		Sam	ple ID	MS-C-B	MS-C-B01	MS-C-B L2101788-2	
	1	ALS Laborat	ory Sample ID	L2098315-2	L2098315-3		
Analyte		Sample D	ate & Time	5/21/2018 3:40:00 PM	5/21/2018 3:40:00 PM	5/28/2018 11:40:00 AM	
•		QA/QC Sa	ample Type	N/A	Duplicate	N/A	
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3 -		71	70.9	-	
рН	pH units	0.1	6.0 - 9.5	7.24	7.35	7.48	
Total Suspended Solids	mg/L	2 Grab 30 and Average 15		4	4	2	
Total Dissolved Solids	mg/L	10 -		-	ı	35	
Turbidity	NTU	0.1 -		-	ı	16.4	
Ammonia, Total (as N)	mg/L	0.02 -		<0.02	<0.02	-	
Nitrate (as N)	mg/L	0.02 -		0.173	0.161	-	
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0	-	

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-D

		Sam	ple ID	MS-C-D	MS-C-D		
		ALS Laborat	ory Sample ID	L2098315-6	L2101788-5		
Analyte		Sample D	ate & Time	5/21/2018 4:55:00 PM	5/28/2018 10:25:00 AM		
		QA/QC Sa	mple Type	N/A	N/A		
	Units	LOR Water Licence Criteria ¹					
Conductivity	umhos/cm	3	-	348	-		
рН	pH units 0.1		6.0 - 9.5	7.7	7.75		
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	13.6	6.4		
Total Dissolved Solids	mg/L	10	-	•	100		
Turbidity	NTU	0.1	•	•	22.2		
Ammonia, Total (as N)	mg/L 0.02		-	0.564	-		
Nitrate (as N)	mg/L	0.02	-	0.726	-		
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-		

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-E

		Sam	ple ID	MS-C-E	MS-C-E L2101788-4		
		ALS Laborat	ory Sample ID	L2098315-5			
Analyte		Sample D	ate & Time	5/21/2018 4:10:00 PM	5/28/2018 10:15:00 AM		
		QA/QC Sa	ample Type	N/A	N/A		
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	206	-		
рН	pH units 0.1		6.0 - 9.5	7.67	7.54		
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	42.8 ²	16.8		
Total Dissolved Solids	mg/L	10	-	-	76		
Turbidity	NTU	0.1	-	-	26.3		
Ammonia, Total (as N)	mg/L	0.02	-	0.251	-		
Nitrate (as N)	mg/L	0.02	-	0.39	-		
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-		

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

²Continued run off from reported spill report #18-182

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-A

		Sam	MQ-C-A L2103396-1			
		ALS Laborat				
Analyte		Sample D	ate & Time	5/29/2018 8:40:00 AM		
		QA/QC Sa	N/A			
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm 3		-	53.8		
рН	pH units 0.1		6.0 - 9.5	7.5		
Total Suspended Solids	mg/L 2		Grab 30 and Average 15	3.1		
Total Dissolved Solids	mg/L	10	-	-		
Turbidity	NTU	0.1	-	-		
Ammonia, Total (as N)	mg/L	0.02	-	0.125		
Nitrate (as N)	mg/L 0.02		-	0.574		
Oil and Grease, Total	mg/L 2		No Visible Sheen	<2.0		
Acute Toxicity			Non-Lethal	Non-lethal		

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-D

		Sam	ple ID	MQ-C-D	MQ-C-D L2101788-3		
		ALS Laborat	ory Sample ID	L2098315-4			
Analyte		Sample D	ate & Time	5/21/2018 2:05:00 PM	5/28/2018 1:55:00 PM		
		QA/QC Sa	imple Type	N/A	N/A		
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	264	-		
рН	pH units	0.1	6.0 - 9.5	7.67	7.71		
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	25.2	36.4 ²		
Total Dissolved Solids	mg/L	10	-	-	86		
Turbidity	NTU	0.1	-	-	70.1		
Ammonia, Total (as N)	mg/L	0.02	-	0.173	-		
Nitrate (as N)	mg/L 0.02		-	0.682	-		
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-		

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

²Continued run off from reported spill report #18-182

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-E

		Sam	ple ID	MQ-C-E	MQ-C-E L2101788-8		
		ALS Laborat	ory Sample ID	L2098315-9			
Analyte		Sample D	ate & Time	5/21/2018 5:30:00 PM	5/28/2018 12:15:00 PM		
		QA/QC Sa	ample Type	N/A	N/A		
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	37.7	-		
рН	pH units	0.1	6.0 - 9.5	7.19	7.5		
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	22.8	8		
Total Dissolved Solids	mg/L	10	-	-	80		
Turbidity	NTU	0.1	-	-	54.8		
Ammonia, Total (as N)	mg/L	0.02	-	0.127	-		
Nitrate (as N)	mg/L	0.02	-	0.266	-		
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-		

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

Table 3: Flow and Volume Measurements-Part I Item 11 - May 2018

DATE	Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (m³) MS-MRY-1	Treated Sewage Effluent (m³) from MS-01 to Discharge Location #1	Treated Sewage Effluent (m³) from MS-01b to Discharge Location #1	Treated Sewage Effluent (m³) from MS-01b to PWSP at Mine Site MS-MRY-4b	Sewage Sludge Removed (m³) from Mine Site WWTP to Incinerator	Sewage Sludge Removed (m³) from Mine Site WWTP to PWSP at Mine Site - MS-MRY-4a	Sewage Sludge Removed (m³) from Mine Site WWTP to PWSP at Mine Site - MS-MRY-4b	Km 32 Lake Milne Port Camp Daily Potable Water (m³) MP-MRY-3	Treated Sewage Effluent (m³) from MP-01 to Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to Incinerator	Sewage Removed (m³) from Lift Stations to PWSP at Milne Port - MP-01a	Water Use for Dust Suppression from Authorized Sources	Sewage Sludge Removed (m³) from Milne Port WWTP to PWSP at Milne Port - MP-01a
1-May-18	115.4	104.4	0.0	11.0	0.0	0.0	0.0	66.1	66.1	0.5	0.0	0.0	0.0
2-May-18	104.3	77.0	0.0	27.3	0.0	0.0	0.0	26.2	26.2	0.5	0.0	0.0	0.0
3-May-18	86.1	59.2	0.0	26.9	0.0	0.0	0.0	35.2	35.2	0.5	0.0	0.0	0.0
4-May-18	145.6	110.8	0.0	34.8	0.0	0.0	0.0	41.5	41.5	0.5	0.0	0.0	0.0
5-May-18	134.9	97.9	0.0	37.0	0.0	0.0	4.5	39.0	39.0	0.5	0.0	0.0	0.0
6-May-18	103.8	66.0	37.8	0.0	0.0	0.0	0.0	42.8	42.8	0.5	0.0	0.0	0.0
7-May-18	180.3	150.7	29.6	0.0	0.0	0.0	0.0	56.1	56.1	0.5	0.0	0.0	0.0
8-May-18	132.3	106.1	26.2	0.0	0.0	0.0	0.0	44.9	44.9	0.5	0.0	0.0	0.0
9-May-18	71.9	57.1	14.8	0.0	0.0	1.8	0.0	45.8	45.8	0.5	0.0	18.9	0.0
10-May-18	196.2	148.1	48.2	0.0	0.0	0.0	0.0	43.6	43.6	0.5	0.0	0.0	0.0
11-May-18	114.2	88.4	25.7	0.0	0.5	0.0	0.0	35.6	35.6	0.5	0.0	0.0	0.0
12-May-18	109.1	90.3	18.8	0.0	4.6	0.0	4.0	42.9	42.9	0.3	0.0	0.0	0.0
13-May-18	164.3	120.8	43.5	0.0	0.5	0.0	0.0	38.6	38.6	0.3	0.0	0.0	0.0
14-May-18	138.5	102.5	36.0	0.0	0.4	0.0	0.0	37.3	37.3	0.3	4.3	0.0	0.0
15-May-18	129.4	96.4	33.0	0.0	0.5	0.0	0.0	43.3	43.3	0.3	0.0	0.0	0.0
16-May-18	204.6	168.8	35.8	0.0	0.4	0.0	0.0	39.6	39.6	0.5	0.0	0.0	0.0
17-May-18	102.4	99.0	3.4	0.0	0.5	0.0	0.0	43.2	43.2	0.5	0.0	0.0	0.0
18-May-18	129.7	119.0	10.6	0.0	0.5	0.0	0.0	35.5	35.5	0.3	0.0	0.0	0.0
19-May-18	107.9	107.9	0.0	0.0	0.5	0.0	0.0	42.7	42.7	0.5	0.0	0.0	0.0
20-May-18	98.2	98.2	0.0	0.0	0.5	0.0	0.0	40.4	40.4	0.5	0.0	0.0	0.0
21-May-18	105.3	102.0	3.3	0.0	0.6	0.0	0.0	42.1	42.1	0.3	0.0	0.0	1.4
22-May-18	60.5	52.3	8.2	0.0	0.5	0.0	0.0	40.4	40.4	0.3	0.0	0.0	1.4
23-May-18	105.6	90.5	15.0	0.0	0.5	0.0	0.0	57.4	57.4	0.3	0.0	0.0	0.0
24-May-18	157.9	121.6	36.3	0.0	0.5	0.0	0.0	32.7	32.7	0.3	0.0	0.0	0.0
25-May-18	91.6	80.8	10.9	0.0	0.5	0.0	0.0	40.6	40.6	0.3	0.0	0.0	0.0
26-May-18	89.9	63.3	26.6	0.0	0.5	0.0	0.0	45.4	45.4	0.3	0.0	0.0	0.0
27-May-18	113.4	81.2	32.2	0.0	0.3	6.0	0.0	45.6	45.6	0.3	2.8	0.0	0.0
28-May-18	133.9	113.5	20.4	0.0	0.5	0.0	0.0	38.6	38.6	0.3	0.0	0.0	0.0
29-May-18	94.9	77.5	17.4	0.0	0.5	0.0	0.0	39.2	39.2	0.3	0.0	0.0	0.0
30-May-18	149.8	132.8	17.0	0.0	0.4	0.0	0.0	48.2	48.2	0.3	0.0	0.0	0.0
31-May-18	144.7	121.7	23.0	0.0	0.5	0.0	0.0	27.8	27.8	0.3	0.0	37.9	0.0
Total	3816.7	3105.9	573.8	137.0	14.1	7.8	8.5	1298.3	1298.3	13.1	7.1	56.8	2.8

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