



February 27, 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
Iqaluit, NU X0A 0H0

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

The following is the monthly report for January 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 January 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/labratory 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 January 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 January 2018.

We hope that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact myself or William Bowden at 416-364-8820 ext 6016.

Regards,

Reviewed by:

A handwritten signature in black ink, appearing to read 'Connor Devereaux'.

Connor Devereaux
Environmental Superintendent

Timothy Ray Sewell
Head of Health, Safety and Environment

Attach: Tables 1, 2 and 3

Cc: Erik Allain, Jonathon Mesher, Sarah Forte (INAC); Todd Burlingame, Megan Lord-Hoyle, Timothy Ray Sewell, Sylvain Proulx, Gerald Rogers, Francois Gaudreau (Baffinland); Stephen Bathory (QIA)

Table 1: Monitoring Program Water Sampling Summary for January 2018

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	January 9,2018	L2043724-1	Discharge volume reported daily
MP-0101 (Duplicate of MP-01)	January 9,2018	L2043724-3	
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 January
MP-C-B01 (Downstream of Construction Area)	N/A	N/A	No flow during month of January
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 January
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow during month of January
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of January
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of January

Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	January 9,2018 January 21,2018 January 23,2018	L2043727-1 L2049097-1 L2049095-1	Discharge volume reported daily
MS-0101 (Duplicate of MS-01)	January 9,2018	L2043727-3	
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 January
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow during month of January
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)	N/A	N/A	No flow during month of January
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow during month of January
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January

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MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of January
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of January
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of January
MQ-C-D (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of January
Steensby Port			
Steensby Exploration Camp is presently not active.			

Table 2. Water Chemistry Results - January 2018

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L2043724-1	MP-01	9-Jan-18	pH	7.9	pH units	ALS
L2043724-1	MP-01	9-Jan-18	Total Suspended Solids	<2.0	mg/L	ALS
L2043724-1	MP-01	9-Jan-18	Alkalinity, Total (asCaCO3)	156	mg/L	ALS
L2043724-1	MP-01	9-Jan-18	Ammonia, Total (as N)	0.078	mg/L	ALS
L2043724-1	MP-01	9-Jan-18	Phosphorus, Total	9.99	mg/L	ALS
L2043724-1	MP-01	9-Jan-18	Fecal Coliforms	0	CFU/100mL	ALS
L2043724-1	MP-01	9-Jan-18	BOD	<2.0	mg/L	ALS
L2043724-1	MP-01	9-Jan-18	Oil and Grease, Total	<2.0	mg/L	ALS
L2043724-3	MP-0101	9-Jan-18	pH	7.85	pH units	ALS
L2043724-3	MP-0101	9-Jan-18	Total Suspended Solids	2.1	mg/L	ALS
L2043724-3	MP-0101	9-Jan-18	Alkalinity, Total (asCaCO3)	158	mg/L	ALS
L2043724-3	MP-0101	9-Jan-18	Ammonia, Total (as N)	0.057	mg/L	ALS
L2043724-3	MP-0101	9-Jan-18	Phosphorus, Total	9.93	mg/L	ALS
L2043724-3	MP-0101	9-Jan-18	Fecal Coliforms	0	CFU/100mL	ALS
L2043724-3	MP-0101	9-Jan-18	BOD	2.4	mg/L	ALS
L2043724-3	MP-0101	9-Jan-18	Oil and Grease, Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L2043727-1	MS-01	9-Jan-18	pH	7.5	pH units	ALS
L2043727-1	MS-01	9-Jan-18	Total Suspended Solids (See Note 1)	45.3	mg/L	ALS
L2043727-1	MS-01	9-Jan-18	Alkalinity, Total (asCaCO3)	64	mg/L	ALS
L2043727-1	MS-01	9-Jan-18	Ammonia, Total (as N)	0.147	mg/L	ALS
L2043727-1	MS-01	9-Jan-18	Phosphorus, Total (See Note 2)	4.29	mg/L	ALS
L2043727-1	MS-01	9-Jan-18	Fecal Coliforms	230	CFU/100mL	ALS
L2043727-1	MS-01	9-Jan-18	BOD	3.8	mg/L	ALS
L2043727-1	MS-01	9-Jan-18	Oil and Grease, Total	<2.0	mg/L	ALS
L2043727-3	MS-0101	9-Jan-18	pH	7.37	pH units	ALS
L2043727-3	MS-0101	9-Jan-18	Total Suspended Solids	<2.0	mg/L	ALS
L2043727-3	MS-0101	9-Jan-18	Alkalinity, Total (asCaCO3)	62	mg/L	ALS
L2043727-3	MS-0101	9-Jan-18	Ammonia, Total (as N)	0.162	mg/L	ALS
L2043727-3	MS-0101	9-Jan-18	Phosphorus, Total	4.28	mg/L	ALS
L2043727-3	MS-0101	9-Jan-18	Fecal Coliforms	150	CFU/100mL	ALS
L2043727-3	MS-0101	9-Jan-18	BOD	<2.0	mg/L	ALS
L2043727-3	MS-0101	9-Jan-18	Oil and Grease, Total	<2.0	mg/L	ALS
L2049097-1	MS-01	21-Jan-18	Total Suspended Solids	<2.0	mg/L	ALS
L2049097-1	MS-01	21-Jan-18	Phosphorus, Total	0.907	mg/L	ALS
L2049095-1	MS-01	23-Jan-18	pH	7.39	pH units	ALS
L2049095-1	MS-01	23-Jan-18	Total Suspended Solids	3.1	mg/L	ALS
L2049095-1	MS-01	23-Jan-18	Alkalinity, Total (asCaCO3)	83	mg/L	ALS
L2049095-1	MS-01	23-Jan-18	Ammonia, Total (as N)	0.118	mg/L	ALS
L2049095-1	MS-01	23-Jan-18	Phosphorus, Total	0.998	mg/L	ALS
L2049095-1	MS-01	23-Jan-18	Fecal Coliforms	19	CFU/100mL	ALS
L2049095-1	MS-01	23-Jan-18	BOD	<2.0	mg/L	ALS
L2049095-1	MS-01	23-Jan-18	Oil and Grease, Total	<2.0	mg/L	ALS

Notes:

Bold and yellow highlight indicate exceedance of the Water License water quality criteria.

- Results from follow up samples collected on January 21, 2018 showed parameter concentrations below criteria listed in Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment
- Results from follow up samples collected on January 23, 2018 showed parameter concentrations below criteria listed in Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment

Table 3: Flow and Volume Measurements-Part I Item 11 - January 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	Sewage Sludge Removed (m³) from Mine Site WWTP to Incinerator	Sewage Sludge Removed (m³) from Lift Stations to PWSP at Mine Site - MS- MRY-4a	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 Sludge Removed (m³) from Milne Port WWTP to PWSP at Milne Port - MP-01a
1-Jan	62.5	62.5	0.5	0.0	43.1	43.1	0.1	0.0
2-Jan	38.7	38.7	0.6	0.0	36.5	36.5	0.3	0.0
3-Jan	71.8	71.8	0.5	0.0	31.4	31.4	0.0	0.0
4-Jan	57.2	57.2	0.5	0.0	35.5	35.5	0.3	0.0
5-Jan	46.9	46.9	0.5	0.0	25.7	25.7	0.3	0.0
6-Jan	96.7	96.7	0.5	0.0	44.5	44.5	0.0	15.6
7-Jan	120.9	120.9	0.6	0.0	22.0	22.0	0.2	1.4
8-Jan	43.3	43.3	0.6	0.0	35.7	35.7	0.3	0.0
9-Jan	61.5	61.5	0.6	6.0	29.1	29.1	0.3	0.0
10-Jan	60.2	60.2	0.5	0.0	39.1	39.1	0.3	0.0
11-Jan	82.2	82.2	0.5	8.0	35.8	35.8	0.3	0.0
12-Jan	76.2	76.2	0.5	0.0	32.8	32.8	0.2	0.0
13-Jan	59.4	59.4	0.5	0.0	34.3	34.3	0.2	0.0
14-Jan	82.9	82.9	0.3	0.0	32.6	32.6	0.3	0.0
15-Jan	68.1	68.1	0.0	0.0	29.0	29.0	0.3	0.0
16-Jan	140.4	140.4	0.5	0.0	38.3	38.3	0.3	0.0
17-Jan	70.0	70.0	0.1	0.0	34.4	34.4	0.0	0.0
18-Jan	70.6	70.6	0.5	28.0	34.4	34.4	0.0	0.0
19-Jan	104.0	104.0	0.5	0.0	34.4	34.4	0.0	0.0
20-Jan	80.8	80.8	0.4	0.0	39.0	39.0	0.4	0.0
21-Jan	111.1	111.1	0.4	0.0	31.3	31.3	0.3	0.0
22-Jan	72.1	72.1	0.5	0.0	42.2	42.2	0.3	0.0
23-Jan	78.6	78.6	0.5	0.0	34.0	34.0	0.4	0.0
24-Jan	77.7	77.7	0.5	2.5	42.2	42.2	0.4	0.0
25-Jan	78.2	78.2	0.5	0.0	26.4	26.4	0.3	0.0
26-Jan	69.5	69.5	0.6	0.0	44.6	44.6	0.2	0.0
27-Jan	93.4	93.4	0.6	0.0	39.3	39.3	0.3	0.0
28-Jan	56.4	56.4	0.6	0.0	31.3	31.3	0.2	0.0
29-Jan	128.5	128.5	0.6	0.0	37.6	37.6	0.3	0.0
30-Jan	36.4	36.4	0.6	0.0	40.1	40.1	0.2	0.0
31-Jan	69.9	69.9	0.5	0.0	43.6	43.6	0.2	0.0
Total	2366.2	2366.2	15.1	44.5	1100.2	1100.2	7.6	17.0

Notes:

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