



January 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
Iqaluit, NU X0A 0H0

RE: Water Licence 2AM-MRY1325 Monthly SNP Report – December 2017

The following is the monthly report for December 2017 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 December 2017, 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 December 2017.

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 December 2017.

We hope that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact myself at ext 6016 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 Gaudrau (Baffinland); Stephen Bathory (QIA)

Table 1: Monitoring Program Water Sampling Summary for December 2017

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	December 12,2017	L2035927-1	Discharge volume reported daily
MP-0101 (Duplicate of MP-01)	December 12,2017	L2035927-3	
MP-0103 (Travel Blank of MP-01)	December 12,2017	L2035927-4	
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 November
MP-C-B01 (Downstream of Construction Area)	N/A	N/A	No flow during month of November
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 November
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow during month of November
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of November
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of November

Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	December 12,2017	L2035949-1	Discharge volume reported daily
MS-0101 (Duplicate of MS-01)	December 12,2017	L2035949-3	
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 November
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow during month of November
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 November
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow during month of November
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of November
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of November
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of November
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of November
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of November
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of November

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

Table 2. Water Chemistry Results - December 2017

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L2035927-1	MP-01	12-Dec-17	pH	7.88	pH units	ALS
L2035927-1	MP-01	12-Dec-17	Total Suspended Solids	2.3	mg/L	ALS
L2035927-1	MP-01	12-Dec-17	Alkalinity, Total (asCaCO3)	196	mg/L	ALS
L2035927-1	MP-01	12-Dec-17	Ammonia, Total (as N)	0.097	mg/L	ALS
L2035927-1	MP-01	12-Dec-17	Phosphorus, Total	10.4	mg/L	ALS
L2035927-1	MP-01	12-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L2035927-1	MP-01	12-Dec-17	BOD	<2.0	mg/L	ALS
L2035927-1	MP-01	12-Dec-17	Oil and Grease, Total	<2.0	mg/L	ALS
L2035927-3	MP-0101	12-Dec-17	pH	7.79	pH units	ALS
L2035927-3	MP-0101	12-Dec-17	Total Suspended Solids	3.6	mg/L	ALS
L2035927-3	MP-0101	12-Dec-17	Alkalinity, Total (asCaCO3)	196	mg/L	ALS
L2035927-3	MP-0101	12-Dec-17	Ammonia, Total (as N)	0.075	mg/L	ALS
L2035927-3	MP-0101	12-Dec-17	Phosphorus, Total	10.3	mg/L	ALS
L2035927-3	MP-0101	12-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L2035927-3	MP-0101	12-Dec-17	BOD	<2.0	mg/L	ALS
L2035927-3	MP-0101	12-Dec-17	Oil and Grease, Total	2.5	mg/L	ALS
L2035927-4	MP-0103	12-Dec-17	pH	6.45	pH units	ALS
L2035927-4	MP-0103	12-Dec-17	Total Suspended Solids	<2.0	mg/L	ALS
L2035927-4	MP-0103	12-Dec-17	Alkalinity, Total (asCaCO3)	<10	mg/L	ALS
L2035927-4	MP-0103	12-Dec-17	Ammonia, Total (as N)	<0.020	mg/L	ALS
L2035927-4	MP-0103	12-Dec-17	Phosphorus, Total	0.0033	mg/L	ALS
L2035927-4	MP-0103	12-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L2035927-4	MP-0103	12-Dec-17	BOD	<2.0	mg/L	ALS
L2035927-4	MP-0103	12-Dec-17	Oil and Grease, Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L2035949-1	MS-01	12-Dec-17	pH	7.67	pH units	ALS
L2035949-1	MS-01	12-Dec-17	Total Suspended Solids	2.7	mg/L	ALS
L2035949-1	MS-01	12-Dec-17	Alkalinity, Total (asCaCO3)	89	mg/L	ALS
L2035949-1	MS-01	12-Dec-17	Ammonia, Total (as N)	0.043	mg/L	ALS
L2035949-1	MS-01	12-Dec-17	Phosphorus, Total	1.11	mg/L	ALS
L2035949-1	MS-01	12-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L2035949-1	MS-01	12-Dec-17	BOD	<2.0	mg/L	ALS
L2035949-1	MS-01	12-Dec-17	Oil and Grease, Total	<2.0	mg/L	ALS
L2035949-3	MS-0101	12-Dec-17	pH	7.59	pH units	ALS
L2035949-3	MS-0101	12-Dec-17	Total Suspended Solids	6.7	mg/L	ALS
L2035949-3	MS-0101	12-Dec-17	Alkalinity, Total (asCaCO3)	88	mg/L	ALS
L2035949-3	MS-0101	12-Dec-17	Ammonia, Total (as N)	0.065	mg/L	ALS
L2035949-3	MS-0101	12-Dec-17	Phosphorus, Total	1.16	mg/L	ALS
L2035949-3	MS-0101	12-Dec-17	Fecal Coliforms	3	CFU/100mL	ALS
L2035949-3	MS-0101	12-Dec-17	BOD	<2.0	mg/L	ALS
L2035949-3	MS-0101	12-Dec-17	Oil and Grease, Total	<2.0	mg/L	ALS

Notes:

Table 3: Flow and Volume Measurements-Part I Item 11 - December 2017

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 Mine Site WWTP to PWSP at Mine Site - MS- MRY-4a	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 Removed (m³) from Lift Stations to PWSP at Milne Port - MP-01a
1-Dec	75.9	75.9	0.5	0.0	0.0	51.9	51.9	0.3	0.0
2-Dec	79.8	79.8	0.6	0.0	0.0	39.7	39.7	0.3	0.0
3-Dec	71.5	71.5	0.6	0.0	0.0	40.9	40.9	0.3	0.0
4-Dec	92.7	92.7	0.4	0.0	0.0	30.1	30.1	0.3	0.0
5-Dec	29.6	29.6	0.4	0.0	0.0	33.6	33.6	0.2	0.0
6-Dec	80.8	80.8	0.5	0.0	0.0	46.0	46.0	0.0	0.0
7-Dec	80.9	80.9	0.5	0.0	0.0	38.2	38.2	0.3	0.0
8-Dec	35.3	35.3	0.5	0.0	0.0	26.0	26.0	0.3	0.0
9-Dec	125.0	125.0	0.5	0.0	0.0	36.1	36.1	0.3	0.0
10-Dec	50.9	50.9	0.5	0.0	0.0	22.7	22.7	0.0	0.0
11-Dec	125.7	125.7	0.6	0.0	0.0	32.5	32.5	0.3	0.0
12-Dec	96.0	96.0	0.6	0.0	0.0	49.3	49.3	0.3	0.0
13-Dec	60.1	60.1	0.6	0.0	0.0	30.4	30.4	0.3	0.0
14-Dec	88.4	88.4	0.6	0.0	0.0	33.3	33.3	0.3	0.0
15-Dec	49.7	49.7	0.0	3.0	0.0	41.8	41.8	0.0	0.0
16-Dec	61.3	61.3	0.5	0.0	0.0	30.9	30.9	0.3	0.0
17-Dec	96.4	96.4	0.0	3.0	8.0	27.4	27.4	0.3	0.0
18-Dec	46.3	46.3	0.6	0.0	0.0	44.7	44.7	0.3	0.0
19-Dec	94.9	94.9	0.6	0.0	0.0	29.7	29.7	0.3	0.0
20-Dec	71.3	71.3	0.3	0.0	0.0	35.3	35.3	0.3	0.0
21-Dec	9.8	9.8	0.3	0.0	0.0	37.2	37.2	0.3	0.0
22-Dec	67.0	67.0	0.5	0.0	0.0	29.8	29.8	0.0	0.0
23-Dec	104.1	104.1	0.6	0.0	0.0	27.3	27.3	0.3	0.0
24-Dec	77.6	77.6	0.3	0.0	0.0	41.6	41.6	0.3	0.0
25-Dec	36.2	36.2	0.2	0.0	0.0	27.4	27.4	0.2	0.0
26-Dec	47.4	47.4	0.2	0.0	0.0	25.3	25.3	0.2	0.0
27-Dec	83.8	83.8	0.0	0.0	0.0	39.9	39.9	0.3	0.0
28-Dec	80.8	80.8	0.3	0.0	0.0	33.7	33.7	0.3	8.5
29-Dec	49.9	49.9	0.6	0.0	0.0	42.0	42.0	0.3	0.0
30-Dec	64.4	64.4	0.0	2.5	0.0	27.7	27.7	0.0	0.0
31-Dec	85.4	85.4	0.0	0.0	0.0	31.4	31.4	0.3	2.8
Total	2218.7	2218.7	12.3	8.5	8.0	1083.9	1083.9	8.3	11.4

Notes:

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