



April 30, 2016

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

Water Resources Officer, AANDC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0

**RE: Water Licence 2AM-MRY1325 Monthly SNP Report – March 2016**

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The following is the monthly report for March 2016 as required under Part I, Item 21 Water Licence 2AM-MRY1325. Part I, Item 21 of the above referenced Water Licence state:

*"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 March 2016, water samples were collected at MP-01 and MS-01 as part of the Water Licence Monitoring Program.

Due to frozen conditions, samples were not collected downstream of construction, quarry, and waste storage/discharge monitoring locations at the Mine Site (MS-C and MQ-C sites) and Milne Port (MP-C and MP-Q1 sites) as part of the Aquatics Effects and Monitoring Program under Schedule I of Water Licence 2AM-MRY1325.

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/lab identification number as appropriate. Analytical water quality testing results received are presented in Table 2. Volumes consumed for domestic water purposes and the volumes of treated sewage effluent and sewage sludge discharged at Mary River Mine Site and Milne Port Camp are presented in 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 March 2016.

**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 March 2016. Daily flow data for runoff and seepage sites are being collected and will be provided in the annual report.

We hope that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact the undersigned, Allan Knight or Jim Millard at 416-364-8820 ext 6016.

Regards,

A handwritten signature in black ink, appearing to read "Allan Knight".

Allan Knight, B.Sc.  
Environmental Superintendent

Reviewed by:

A handwritten signature in black ink, appearing to read "James Millard".

James Millard, M.Sc., P.Geo  
Environmental Manager

Attach: Tables 1, 2 and 3

Cc: Justin Hack, Erik Allain, Scott Burgess (AANDC)

**Table 1: Monitoring Program Water Sampling Summary for March 2016**

<b>Monitoring Program Station</b>	<b>Sampling Date</b>	<b>Lab ID#</b>	<b>Comment</b>
<b>Milne Port</b>			
MP-01 (Sewage Treatment Facility)	March 1, 2016 March 15, 2016	L1740979-1 L1745711-1	Discharge volume reported daily
MP-01A (Milne Port PWSP)	N/A	N/A	Volume Reported Daily during discharge
MP-MRY-3 (Freshwater Intake from Km 32 Lake - Winter)	N/A	N/A	Withdrawal volume Reported Daily
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 Facility)	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 Quarry Area)	N/A	N/A	No flow, frozen conditions
MP-C-B01 (Downstream of Quarry Area)	N/A	N/A	No flow, frozen conditions
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow, frozen conditions
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow, frozen conditions
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow, frozen conditions
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow, frozen conditions
<b>Mary River Mine Site</b>			
MS-01 (Sewage Treatment Facility)	March 1, 2016 March 8, 2016	L1740981-1 L1742800-1	Discharge volume reported daily
MS-MRY-1 (Freshwater Intake from Camp Lake)	N/A	N/A	Withdrawal volume reported daily
MS-MRY-04 (Exploration Camp RBC)	N/A	N/A	Facility Inactive
MS-MRY-04B (Exploration Camp PWSP #2)	N/A	N/A	Volume Reported Daily during discharge
MS-03 (Milne Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	Volume Reported Daily during discharge
MS-08 (Temporary Mine Waste Rock Stockpile pond)	N/A	N/A	Volume Reported Daily during discharge

<b>Monitoring Program Station</b>	<b>Sampling Date</b>	<b>Lab ID#</b>	<b>Comment</b>
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 discharge observed
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No discharge observed
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, frozen conditions
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow, frozen conditions
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow, frozen conditions
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow, frozen conditions
MQ-C-D (Downstream of QMR2 Quarry)	N/A	N/A	No flow, frozen conditions
MQ-C-E (Downstream of D1Q2 Quarry)	N/A	N/A	No flow, frozen conditions
<b>Steensby Port</b>			
Steensby Exploration Camp is presently not active.			

Table 2. Water Chemistry Results - March 2016

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
<b>MILNE PORT SITE</b>						
L1740979-1	MP-01	1-Mar-16	pH	7.38	pH units	ALS
L1740979-1	MP-01	1-Mar-16	Total Suspended Solids	5.5	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	N-NH3 (Ammonia)	0.114	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Total Phosphorus	8.95	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Faecal Coliforms	-	CFU/100 mL	ALS
L1740979-1	MP-01	1-Mar-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1740979-1	MP-01	1-Mar-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1745711-1	MP-01	15-Mar-16	Faecal Coliforms	0	CFU/100 mL	ALS
<b>MARY RIVER MINE SITE</b>						
L1740981-1	MS-01	1-Mar-16	pH	7.19	pH units	ALS
L1740981-1	MS-01	1-Mar-16	Total Suspended Solids	<2.0	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	N-NH3 (Ammonia)	0.056	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Total Kjeldahl Nitrogen	1.68	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Total Phosphorus	0.426	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Faecal Coliforms	-	CFU/100 mL	ALS
L1740981-1	MS-01	1-Mar-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1740981-1	MS-01	1-Mar-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1742800-1	MP-01	8-Mar-16	Faecal Coliforms	1	CFU/100 mL	ALS

Table 3: Flow and Volume Measurements-Part I Item 11 - March 2016

DATE	Camp Lake Freshwater Use (Mine Site Camp) Daily Potable Water (m <sup>3</sup> ) MS-MRY-1	Camp Lake Daily Freshwater Use for Other Purposes - (m <sup>3</sup> ) MS-MRY-1	Km 32 Lake Milne Port Camp Daily Potable Water (m <sup>3</sup> ) MP-MRY-3	Treated Sewage Effluent (m <sup>3</sup> ) from MS-01 to Discharge Location #1	Sewage Sludge Removed (m <sup>3</sup> ) from Mine Site WWTP to incinerator	Sewage Sludge Removed (m <sup>3</sup> ) from Mine Site WWTP to PWSP at Mine Site - MS- MRY-4a	Treated Sewage Effluent (m <sup>3</sup> ) from MP-01 to Milne Port	Sewage Sludge Removed (m <sup>3</sup> ) from Milne Port WWTP to incinerator	Sewage Removed (m <sup>3</sup> ) from Lift Stations to PWSP at Milne Port - MP-01a
1/Mar	51.7	0.0	34.8	51.7	0.3	0.0	34.8	0.0	0.0
2/Mar	52.0	0.0	17.4	52.0	0.4	0.0	17.4	0.2	0.0
3/Mar	56.9	0.0	34.8	56.9	0.4	3.1	34.8	0.0	0.0
4/Mar	66.8	0.0	17.4	66.8	0.2	0.0	17.4	0.2	0.0
5/Mar	28.9	0.0	34.8	28.9	0.4	0.0	34.8	0.2	0.0
6/Mar	70.3	0.0	34.8	70.3	0.4	0.0	34.8	0.2	4.3
7/Mar	51.6	0.0	17.4	51.6	0.4	0.0	17.4	0.2	0.0
8/Mar	39.8	0.0	34.8	39.8	0.4	0.0	34.8	0.2	0.0
9/Mar	89.1	0.0	0.0	89.1	0.3	0.0	0.0	0.2	0.0
10/Mar	45.2	0.0	69.7	45.2	0.3	0.0	69.7	0.2	0.0
11/Mar	54.7	0.0	17.4	54.7	0.4	0.0	17.4	0.2	0.0
12/Mar	67.6	4.3	52.2	67.6	0.4	0.0	52.2	0.2	0.0
13/Mar	52.8	0.0	34.8	52.8	0.6	0.0	34.8	0.2	0.0
14/Mar	29.8	0.3	52.2	29.8	0.4	0.0	52.2	0.2	0.0
15/Mar	80.8	0.0	17.4	80.8	0.3	0.0	17.4	0.0	0.0
16/Mar	82.1	0.0	34.8	82.1	0.3	0.0	34.8	0.2	0.0
17/Mar	55.6	0.0	34.8	55.6	0.4	0.0	34.8	0.2	0.0
18/Mar	83.6	0.0	17.4	83.6	0.4	0.0	17.4	0.2	0.0
19/Mar	36.8	7.6	34.8	36.8	0.3	0.0	34.8	0.2	0.0
20/Mar	44.6	0.0	0.0	44.6	0.3	0.0	0.0	0.2	0.0
21/Mar	82.4	20.9	34.8	82.4	0.4	0.0	34.8	0.1	0.0
22/Mar	75.0	7.2	17.4	75.0	0.3	0.0	17.4	0.3	0.0
23/Mar	57.3	0.0	17.4	57.3	0.4	0.0	17.4	0.1	5.7
24/Mar	47.5	0.0	17.4	47.5	0.3	0.0	17.4	0.2	0.0
25/Mar	45.7	0.0	34.8	45.7	0.4	0.0	34.8	0.2	0.0
26/Mar	68.9	0.0	34.8	68.9	0.3	0.0	34.8	0.2	0.0
27/Mar	34.7	0.0	52.2	34.7	0.4	0.0	52.2	0.2	0.0
28/Mar	63.6	8.5	17.4	63.6	0.3	0.0	17.4	0.2	0.0
29/Mar	107.3	5.7	17.4	107.3	0.4	0.0	17.4	0.2	0.0
30/Mar	47.1	6.8	0.0	47.1	0.4	0.0	0.0	0.0	0.0
31/Mar	53.8	0.0	69.7	53.8	0.4	0.0	69.7	0.2	0.0
<b>Total</b>	<b>1824.0</b>	<b>61.2</b>	<b>905.5</b>	<b>1824.0</b>	<b>11.3</b>	<b>3.1</b>	<b>905.5</b>	<b>4.7</b>	<b>9.9</b>

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

Use for Other Purposes MS-MRY-1

Fire Truck Training - March 12, 14, 19, 21, 22, 28, 29

Fire Suppression Tanks - March 30