



May 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 – April 2016

The following is the monthly report for April 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 April 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 April 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 April 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,

Reviewed by:

A handwritten signature in black ink that reads "Allan Knight".

Allan Knight, B.Sc.
Environmental Superintendent

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

Attach: Tables 1, 2 and 3
Cc: Justin Hack, Erik Allain (AANDC)

Table 1: Monitoring Program Water Sampling Summary for April 2016

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	April 5, 2016	L1753081-1	Discharge volume reported daily
MP-0101	April 5, 2016	L1753081-3	Duplicate of MP-01
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
Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	April 5, 2016	L1753088-1	Discharge volume reported daily
MS-01 DUPLICATE	April 5, 2016	L1753088-3	Duplicate of MS-01
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

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MS-08 (Temporary 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 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
Steensby Port			
Steensby Exploration Camp is presently not active.			

Table 2. Water Chemistry Results - April 2016

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L1753081-1	MP-01	5-Apr-16	pH	7.58	pH units	ALS
L1753081-1	MP-01	5-Apr-16	Total Suspended Solids	4	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	N-NH3 (Ammonia)	0.022	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Total Kjeldahl Nitrogen	0.3	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Total Phosphorus	9.89	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Faecal Coliforms	<1	MPN/100mL	ALS
L1753081-1	MP-01	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753081-1	MP-01	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	pH	7.53	pH units	ALS
L1753081-3	MP-0101	5-Apr-16	Total Suspended Solids	5.2	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	N-NH3 (Ammonia)	0.034	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Total Kjeldahl Nitrogen	2.35	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Total Phosphorus	10	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Faecal Coliforms	<1	MPN/100mL	ALS
L1753081-3	MP-0101	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753081-3	MP-0101	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1753088-1	MS-01	5-Apr-16	pH	7.77	pH units	ALS
L1753088-1	MS-01	5-Apr-16	Total Suspended Solids	<2.0	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	N-NH3 (Ammonia)	0.129	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Total Kjeldahl Nitrogen	1.24	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Total Phosphorus	0.505	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Faecal Coliforms	2	MPN/100mL	ALS
L1753088-1	MS-01	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753088-1	MS-01	5-Apr-16	Oil & Grease - Total	2.5	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	pH	7.79	pH units	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Total Suspended Solids	2.8	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	N-NH3 (Ammonia)	0.126	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Total Kjeldahl Nitrogen	1.4	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Total Phosphorus	0.518	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Faecal Coliforms	3	MPN/100mL	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1753088-3	MS-01 DUPLICATE	5-Apr-16	Oil & Grease - Total	<2.0	mg/L	ALS

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

DATE	Camp Lake Freshwater Use (Mine Site Camp) Daily Potable Water (m³) MS-MRY-1	Camp Lake Daily Freshwater Use for Other Purposes - (m³) MS-MRY-1	Km 32 Lake Milne Port Camp Daily Potable Water (m³) MP-MRY-3	Treated Sewage Effluent (m³) from MS-01 to Discharge Location #1	Sewage Sludge Removed (m³) from Mine Site WWTP to incinerator	Treated Sewage Effluent (m³) from MP-01 to Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to incinerator
1/Apr	55.1	0.0	34.8	55.1	0.3	34.8	0.2
2/Apr	92.3	0.0	34.8	92.3	0.3	34.8	0.2
3/Apr	47.7	0.0	17.4	47.7	0.3	17.4	0.0
4/Apr	71.4	0.0	34.8	71.4	0.4	34.8	0.0
5/Apr	58.3	0.0	0.0	58.3	0.3	0.0	0.2
6/Apr	44.2	0.0	17.4	44.2	0.3	17.4	0.2
7/Apr	79.7	0.0	17.4	79.7	0.3	17.4	0.2
8/Apr	31.6	0.0	52.2	31.6	0.3	52.2	0.2
9/Apr	69.3	0.0	17.4	69.3	0.4	17.4	0.2
10/Apr	57.1	0.0	17.4	57.1	0.3	17.4	0.2
11/Apr	52.5	0.0	17.4	52.5	0.4	17.4	0.2
12/Apr	58.1	0.0	17.4	58.1	0.4	17.4	0.2
13/Apr	67.5	0.0	17.4	67.5	0.4	17.4	0.2
14/Apr	51.1	0.0	17.4	51.1	0.3	17.4	0.2
15/Apr	60.0	0.0	52.2	60.0	0.3	52.2	0.2
16/Apr	65.8	0.0	34.8	65.8	0.3	34.8	0.2
17/Apr	24.2	0.0	34.8	24.2	0.3	34.8	0.1
18/Apr	70.2	8.5	17.4	70.2	0.3	17.4	0.1
19/Apr	84.4	0.0	17.4	84.4	0.3	17.4	0.0
20/Apr	40.8	0.0	17.4	40.8	0.3	17.4	0.1
21/Apr	78.1	0.0	34.8	78.1	0.3	34.8	0.1
22/Apr	57.8	0.0	34.8	57.8	0.3	34.8	0.1
23/Apr	54.4	0.0	17.4	54.4	0.3	17.4	0.2
24/Apr	60.9	0.0	34.8	60.9	0.4	34.8	0.5
25/Apr	71.9	0.0	34.8	71.9	0.4	34.8	0.0
26/Apr	61.7	0.0	0.0	61.7	0.5	0.0	0.1
27/Apr	81.9	0.0	17.4	81.9	0.5	17.4	0.1
28/Apr	64.7	0.0	34.8	64.7	0.4	34.8	0.1
29/Apr	76.9	31.6	34.8	76.9	0.4	34.8	0.1
30/Apr	51.9	0.0	34.8	51.9	0.4	34.8	0.1
Total	1841.4	40.0	766.2	1841.4	10.7	766.2	4.1

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

Use for Other Purposes MS-MRY-1

Fire Truck - April 18

Culvert Steamers - April 29