



January 30, 2014

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 License 2AM-MRY1325 Monthly SNP Report – December 2014

The following is the monthly report for December 2014 as required under Part I, Item 21 Water License 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 December 2014, 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 areas and quarry 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 in December 2014.

Table 1 presents a list of samples/monitoring required under the Water Licenses and the details concerning which water quality samples have been 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 December 2014.

B) Flow and Volume Measurements

Table 3 provides a breakdown of volume measurements as requested in Part I, Item 9 of the water license for December 2014. 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 Allan Knight at 647-253-0596 ext:6010 (site) or by e-mail at allan.knight@baffinland.com.

Regards,

A handwritten signature in cursive script, appearing to read "Allan Knight".

Allan Knight, B.Sc.
Environmental Superintendent

Attach: Tables 1, 2 and 3

Cc: Justin Hack, Erik Allain (AANDC), Stephen Bathory QIA

Table 1: Monitoring Program Water Sampling Summary for December 2014

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	December 3, 2014 December 11, 2014 December 17, 2014 December 25, 2014	L1553754-1 L1557624-5 L1559303-1 L1562250-1	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-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-B0101 (Duplicate of MP-C-B01)	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)	December 3, 2014 December 11, 2014 December 17, 2014 December 25, 2014	L1553733-1 L1557168-1 L1559251-1 L1562249-1	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-04A (Exploration Camp PWSP #1)	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-MRY-6	N/A	N/A	Volume Reported Daily during discharge

Monitoring Program Station	Sampling Date	Lab ID#	Comment
(Exploration Camp Bladder Farm Stormwater)			
MS-MRY-09 (Bulk Sample Pit)	N/A	N/A	No flow, frozen conditions
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow, frozen conditions
MS-MRY-11 (Processing Bulk Sample Stockpile)	N/A	N/A	No flow, frozen conditions
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
Steensby Port			
Steensby Exploration Camp closed for the season			

Table 2. Water Chemistry Results - December 2014

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L1553754-1	MP-01	3-Dec-14	pH	7.33	pH units	Exova
L1553754-1	MP-01	3-Dec-14	Total Suspended Solids	<2.0	mg/L	Exova
L1553754-1	MP-01	3-Dec-14	N-NH3 (Ammonia)	0.262	mg/L	Exova
L1553754-1	MP-01	3-Dec-14	Total Kjeldahl Nitrogen	1.8	mg/L	Exova
L1553754-1	MP-01	3-Dec-14	Total Phosphorus	16.5	mg/L	Exova
L1553754-1	MP-01	3-Dec-14	Faecal Coliforms	10	ct/100mL	Exova
L1553754-1	MP-01	3-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1553754-1	MP-01	3-Dec-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1557624-5	MP-01	11-Dec-14	pH	7.20	pH units	Exova
L1557624-5	MP-01	11-Dec-14	Total Suspended Solids	<2.0	mg/L	Exova
L1557624-5	MP-01	11-Dec-14	N-NH3 (Ammonia)	0.404	mg/L	Exova
L1557624-5	MP-01	11-Dec-14	Total Kjeldahl Nitrogen	<0.15	mg/L	Exova
L1557624-5	MP-01	11-Dec-14	Total Phosphorus	15.1	mg/L	Exova
L1557624-5	MP-01	11-Dec-14	Faecal Coliforms	2	ct/100mL	Exova
L1557624-5	MP-01	11-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1557624-5	MP-01	11-Dec-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1559303-1	MP-01	17-Dec-14	pH	7.34	pH units	Exova
L1559303-1	MP-01	17-Dec-14	Total Suspended Solids	4.8	mg/L	Exova
L1559303-1	MP-01	17-Dec-14	N-NH3 (Ammonia)	0.221	mg/L	Exova
L1559303-1	MP-01	17-Dec-14	Total Kjeldahl Nitrogen	<0.15	mg/L	Exova
L1559303-1	MP-01	17-Dec-14	Total Phosphorus	14.3	mg/L	Exova
L1559303-1	MP-01	17-Dec-14	Faecal Coliforms	0	ct/100mL	Exova
L1559303-1	MP-01	17-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1559303-1	MP-01	17-Dec-14	Oil & Grease - Total	<6.0	mg/L	Exova
L1562250-1	MP-01	25-Dec-14	pH	7.63	pH units	Exova
L1562250-1	MP-01	25-Dec-14	Total Suspended Solids	<2.0	mg/L	Exova
L1562250-1	MP-01	25-Dec-14	N-NH3 (Ammonia)	0.344	mg/L	Exova
L1562250-1	MP-01	25-Dec-14	Total Kjeldahl Nitrogen	1.38	mg/L	Exova
L1562250-1	MP-01	25-Dec-14	Total Phosphorus	13.5	mg/L	Exova
L1562250-1	MP-01	25-Dec-14	Faecal Coliforms	0	ct/100mL	Exova
L1562250-1	MP-01	25-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1562250-1	MP-01	25-Dec-14	Oil & Grease - Total	<2.0	mg/L	Exova
MARY RIVER MINE SITE						
L1553733-1	MS-01	3-Dec-14	pH	7.42	pH units	ALS
L1553733-1	MS-01	3-Dec-14	Total Suspended Solids	<2.0	mg/L	ALS
L1553733-1	MS-01	3-Dec-14	N-NH3 (Ammonia)	0.45	mg/L	ALS
L1553733-1	MS-01	3-Dec-14	Total Kjeldahl Nitrogen	1.55	mg/L	ALS
L1553733-1	MS-01	3-Dec-14	Total Phosphorus	0.872	mg/L	ALS
L1553733-1	MS-01	3-Dec-14	Faecal Coliforms	0	ct/100mL	ALS
L1553733-1	MS-01	3-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1553733-1	MS-01	3-Dec-14	Oil & Grease - Total	<2.0	mg/L	ALS
L1557168-1	MS-01	11-Dec-14	pH	7.04	pH units	ALS
L1557168-1	MS-01	11-Dec-14	Total Suspended Solids	4.8	mg/L	ALS
L1557168-1	MS-01	11-Dec-14	N-NH3 (Ammonia)	0.33	mg/L	ALS
L1557168-1	MS-01	11-Dec-14	Total Kjeldahl Nitrogen	0.29	mg/L	ALS
L1557168-1	MS-01	11-Dec-14	Total Phosphorus	0.812	mg/L	ALS
L1557168-1	MS-01	11-Dec-14	Faecal Coliforms	0	ct/100mL	ALS
L1557168-1	MS-01	11-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1557168-1	MS-01	11-Dec-14	Oil & Grease - Total	<2.0	mg/L	ALS
L1559251-1	MS-01	17-Dec-14	pH	7.28	pH units	ALS
L1559251-1	MS-01	17-Dec-14	Total Suspended Solids	2.4	mg/L	ALS
L1559251-1	MS-01	17-Dec-14	N-NH3 (Ammonia)	0.32	mg/L	ALS
L1559251-1	MS-01	17-Dec-14	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1559251-1	MS-01	17-Dec-14	Total Phosphorus	0.222	mg/L	ALS
L1559251-1	MS-01	17-Dec-14	Faecal Coliforms	0	ct/100mL	ALS
L1559251-1	MS-01	17-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1559251-1	MS-01	17-Dec-14	Oil & Grease - Total	<2.0	mg/L	ALS
L1562249-1	MS-01	25-Dec-14	pH	7.51	pH units	ALS
L1562249-1	MS-01	25-Dec-14	Total Suspended Solids	2.4	mg/L	ALS
L1562249-1	MS-01	25-Dec-14	N-NH3 (Ammonia)	0.42	mg/L	ALS
L1562249-1	MS-01	25-Dec-14	Total Kjeldahl Nitrogen	0.93	mg/L	ALS
L1562249-1	MS-01	25-Dec-14	Total Phosphorus	0.151	mg/L	ALS
L1562249-1	MS-01	25-Dec-14	Faecal Coliforms	0	ct/100mL	ALS
L1562249-1	MS-01	25-Dec-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1562249-1	MS-01	25-Dec-14	Oil & Grease - Total	<6.0	mg/L	ALS

Table 3: Flow and Volume Measurements-Part I Item 11 - December 2014

DATE	Camp Lake Freshwater Use (Mine Site Camp) Daily Potable Water (m3) - 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	Treated Sewage Effluent (m3) from MP-01 to Milne Port	Sewage Sludge Removed (m3) from Milne Port WWTP
1-Dec	96.4	30.3	96.4	0.5	30.3	0.0
2-Dec	29.8	45.4	29.8	0.0	45.4	0.0
3-Dec	28.4	60.6	28.4	0.5	60.6	0.0
4-Dec	44.1	53.0	44.1	0.0	53.0	0.0
5-Dec	47.5	45.4	47.5	0.5	45.4	0.0
6-Dec	38.1	45.4	38.1	0.0	45.4	0.0
7-Dec	46.7	45.4	46.7	0.0	45.4	0.0
8-Dec	34.4	45.4	34.4	0.0	45.4	0.0
9-Dec	34.3	45.4	34.3	0.5	45.4	0.0
10-Dec	34.5	0.0	34.5	0.0	0.0	0.0
11-Dec	0.0	45.4	0.0	0.5	45.4	0.0
12-Dec	57.1	45.4	57.1	0.3	45.4	0.0
13-Dec	49.5	45.4	49.5	0.3	45.4	0.0
14-Dec	38.2	45.4	38.2	0.4	45.4	0.0
15-Dec	41.2	15.1	41.2	0.4	15.1	0.0
16-Dec	38.2	30.3	38.2	0.5	30.3	0.0
17-Dec	38.3	45.4	38.3	0.5	45.4	0.0
18-Dec	38.2	30.3	38.2	0.5	30.3	0.0
19-Dec	30.7	30.3	30.7	0.5	30.3	0.0
20-Dec	30.6	30.3	30.6	0.5	30.3	0.0
21-Dec	30.6	30.3	30.6	0.5	30.3	0.0
22-Dec	30.5	15.1	30.5	0.5	15.1	0.0
23-Dec	54.1	45.4	54.1	0.5	45.4	0.4
24-Dec	30.7	0.0	30.7	0.5	0.0	0.0
25-Dec	30.4	30.3	30.4	0.5	30.3	0.0
26-Dec	30.6	15.1	30.6	0.0	15.1	0.0
27-Dec	30.6	15.1	30.6	0.0	15.1	0.4
28-Dec	15.4	15.1	15.4	0.5	15.1	0.0
29-Dec	49.6	15.1	49.6	0.0	15.1	0.0
30-Dec	23.1	15.1	23.1	0.8	15.1	0.0
31-Dec	38.1	15.1	38.1	0.0	15.1	0.2
Total	1159.7	991.8	1159.7	10.2	991.8	1.1

Notes:

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