



April 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 General and Aquatic Effects Monitoring Report – March 2014

The following is the monthly report for March 2014 as required under Part I, Items 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 March 2014, samples were collected at MP-01 and MS-01 as part of the Water Licence Monitoring Program.

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 March 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 March 2014.

We hope that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact Jim Millard at 902-403-1337(cell) / 647-253-0596 ext:6016 (site) or by e-mail at jim.millard@baffinland.com.

Regards,

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

James Millard, M.Sc., P.Geo.
Senior Environmental Superintendent

Attach: Tables 1, 2 and 3

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

Table 1: Monitoring Program Water Sampling Summary for March 2014

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	March 4, 2014 March 12, 2014 March 18, 2014 March 25, 2014	1090474, 1090476 1091981, 1091983 1093120, 1093122 1094288	Discharge volume reported daily
MP-MRY-3 (Freshwater Intake from Km 32 Lake - Winter)	N/A	N/A	Withdrawal volume Reported Daily
MP-MRY-04 (Milne Exploration Phase Sewage Treatment Facility)	N/A	N/A	RBC shut down
MP-MRY-07 (Oily Water Treatment for Bladder Farm)	N/A	N/A	Bladder Fuel Storage Facility is the process of being decommissioned
MP-MRY-12 (MRY-12)	N/A	N/A	No flow, frozen conditions
MP-C-A (Downstream of Construction Area)	N/A	N/A	No flow, frozen conditions
MP-C-B (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-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)	March 4, 2014 March 4, 2014 March 4, 2014 March 4, 2014 March 12, 2014 March 18, 2014 March 25, 2014	1090481, 1090487 1090484, 1090489 1090485, 1090490 1090486, 1090491 1091971, 1091973 1093124, 1093147 1094294	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 Sewage Treatment Facility)	N/A	N/A	RBC shut down
MS-MRY-04A (Exploration Camp PWSP)	N/A	N/A	No effluent discharge from this facility
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

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MS-MRY-11 (Bulk Sample Crusher 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
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 - March 2014

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT						
1090474	MP-01	4-Mar-14	Biochemical Oxygen Demand	3	mg/L	Exova
1090476	MP-01	4-Mar-14	Faecal Coliforms	10	ct/100mL	Exova
1090474	MP-01	4-Mar-14	Total Kjeldahl Nitrogen	0.92	mg/L	Exova
1090474	MP-01	4-Mar-14	N-NH3 (Ammonia)	0.3	mg/L	Exova
1090474	MP-01	4-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1090474	MP-01	4-Mar-14	Total Suspended Solids	2	mg/L	Exova
1090474	MP-01	4-Mar-14	pH	8.16	pH units	Exova
1091981	MP-01	12-Mar-14	Biochemical Oxygen Demand	2	mg/L	Exova
1091983	MP-01	12-Mar-14	Faecal Coliforms	0	ct/100mL	Exova
1091981	MP-01	12-Mar-14	Total Kjeldahl Nitrogen	1.52	mg/L	Exova
1091981	MP-01	12-Mar-14	N-NH3 (Ammonia)	0.21	mg/L	Exova
1091981	MP-01	12-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1091981	MP-01	12-Mar-14	Total Suspended Solids	5	mg/L	Exova
1091981	MP-01	12-Mar-14	pH	7.63	pH units	Exova
1093120	MP-01	18-Mar-14	Biochemical Oxygen Demand	2	mg/L	Exova
1093122	MP-01	18-Mar-14	Faecal Coliforms	1	ct/100mL	Exova
1093120	MP-01	18-Mar-14	Total Kjeldahl Nitrogen	2.19	mg/L	Exova
1093120	MP-01	18-Mar-14	N-NH3 (Ammonia)	0.32	mg/L	Exova
1093120	MP-01	18-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1093120	MP-01	18-Mar-14	Total Suspended Solids	10	mg/L	Exova
1093120	MP-01	18-Mar-14	pH	7.86	pH units	Exova
1094288	MP-01	25-Mar-14	Biochemical Oxygen Demand	6	mg/L	Exova
*	MP-01	25-Mar-14	Faecal Coliforms	*	ct/100mL	Exova
1094288	MP-01	25-Mar-14	Total Kjeldahl Nitrogen	1.29	mg/L	Exova
1094288	MP-01	25-Mar-14	N-NH3 (Ammonia)	0.26	mg/L	Exova
1094288	MP-01	25-Mar-14	Oil & Grease - Total	2	mg/L	Exova
1094288	MP-01	25-Mar-14	Total Suspended Solids	10	mg/L	Exova
1094288	MP-01	25-Mar-14	pH	7.88	pH units	Exova
MARY RIVER MINE SITE						
1090481	MS-01	4-Mar-14	Biochemical Oxygen Demand	2	mg/L	Exova
1090487	MS-01	4-Mar-14	Faecal Coliforms	3	ct/100mL	Exova
1090481	MS-01	4-Mar-14	Total Kjeldahl Nitrogen	0.94	mg/L	Exova
1090481	MS-01	4-Mar-14	N-NH3 (Ammonia)	0.14	mg/L	Exova
1090481	MS-01	4-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1090481	MS-01	4-Mar-14	Total Phosphorus	0.2	mg/L	Exova
1090481	MS-01	4-Mar-14	Total Suspended Solids	5	mg/L	Exova
1090481	MS-01	4-Mar-14	pH	7.86	pH units	Exova
1090484	MS-0101	4-Mar-14	Biochemical Oxygen Demand	1	mg/L	Exova
1090489	MS-0101	4-Mar-14	Faecal Coliforms	1	ct/100mL	Exova
1090484	MS-0101	4-Mar-14	Total Kjeldahl Nitrogen	1.95	mg/L	Exova
1090484	MS-0101	4-Mar-14	N-NH3 (Ammonia)	1.68	mg/L	Exova
1090484	MS-0101	4-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1090484	MS-0101	4-Mar-14	Total Phosphorus	0.24	mg/L	Exova
1090484	MS-0101	4-Mar-14	Total Suspended Solids	4	mg/L	Exova
1090484	MS-0101	4-Mar-14	pH	7.09	pH units	Exova
1090485	MS-0102	4-Mar-14	Biochemical Oxygen Demand	<1	mg/L	Exova
1090490	MS-0102	4-Mar-14	Faecal Coliforms	0	ct/100mL	Exova
1090485	MS-0102	4-Mar-14	Total Kjeldahl Nitrogen	0.27	mg/L	Exova
1090485	MS-0102	4-Mar-14	N-NH3 (Ammonia)	0.17	mg/L	Exova
1090485	MS-0102	4-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1090485	MS-0102	4-Mar-14	Total Phosphorus	<0.01	mg/L	Exova
1090485	MS-0102	4-Mar-14	Total Suspended Solids	<2	mg/L	Exova
1090485	MS-0102	4-Mar-14	pH	5.5	pH units	Exova
1090486	MS-0103	4-Mar-14	Biochemical Oxygen Demand	<1	mg/L	Exova
1090491	MS-0103	4-Mar-14	Faecal Coliforms	0	ct/100mL	Exova
1090486	MS-0103	4-Mar-14	Total Kjeldahl Nitrogen	0.29	mg/L	Exova
1090486	MS-0103	4-Mar-14	N-NH3 (Ammonia)	0.15	mg/L	Exova
1090486	MS-0103	4-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1090486	MS-0103	4-Mar-14	Total Phosphorus	<0.01	mg/L	Exova
1090486	MS-0103	4-Mar-14	Total Suspended Solids	<2	mg/L	Exova
1090486	MS-0103	4-Mar-14	pH	5.56	pH units	Exova
1091971	MS-01	12-Mar-14	Biochemical Oxygen Demand	<1	mg/L	Exova
1091973	MS-01	12-Mar-14	Faecal Coliforms	0	ct/100mL	Exova
1091971	MS-01	12-Mar-14	Total Kjeldahl Nitrogen	0.14	mg/L	Exova
1091971	MS-01	12-Mar-14	N-NH3 (Ammonia)	0.14	mg/L	Exova
1091971	MS-01	12-Mar-14	Oil & Grease - Total	3	mg/L	Exova
1091971	MS-01	12-Mar-14	Total Phosphorus	0.54	mg/L	Exova
1091971	MS-01	12-Mar-14	Total Suspended Solids	4	mg/L	Exova
1091971	MS-01	12-Mar-14	pH	7.85	pH units	Exova
1093124	MS-01	18-Mar-14	Biochemical Oxygen Demand	<1	mg/L	Exova
1093147	MS-01	18-Mar-14	Faecal Coliforms	1	ct/100mL	Exova
1093124	MS-01	18-Mar-14	Total Kjeldahl Nitrogen	0.64	mg/L	Exova
1093124	MS-01	18-Mar-14	N-NH3 (Ammonia)	0.14	mg/L	Exova
1093124	MS-01	18-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1093124	MS-01	18-Mar-14	Total Phosphorus	0.45	mg/L	Exova
1093124	MS-01	18-Mar-14	Total Suspended Solids	5	mg/L	Exova
1093124	MS-01	18-Mar-14	pH	7.31	pH units	Exova
1094294	MS-01	25-Mar-14	Biochemical Oxygen Demand	1	mg/L	Exova
*	MS-01	25-Mar-14	Faecal Coliforms	*	ct/100mL	Exova
1094294	MS-01	25-Mar-14	Total Kjeldahl Nitrogen	0.58	mg/L	Exova
1094294	MS-01	25-Mar-14	N-NH3 (Ammonia)	0.26	mg/L	Exova
1094294	MS-01	25-Mar-14	Oil & Grease - Total	<1	mg/L	Exova
1094294	MS-01	25-Mar-14	Total Phosphorus	0.44	mg/L	Exova
1094294	MS-01	25-Mar-14	Total Suspended Solids	2	mg/L	Exova
1094294	MS-01	25-Mar-14	pH	7.59	pH units	Exova

Notes: * March 25 samples were misdirected in shipment and the microbiological samples expired.

MS-0101 is a field duplicate of MS-01.

MS-0102 is a field blank of MS-01.

MS-0103 is a travel blank for MS-01.

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

DATE	Camp Lake Freshwater Use (Mary River Camp) - Daily Potable Water (m³) - MRY-1	Km 32 Lake Milne Inlet Camp Daily Potable Water (m³) MRY-3	Treated Sewage Effluent (m³) from WWTF to Discharge Location #1	Treated Sewage Effluent (m³) from MP-01 to Milne Inlet	*Sewage Sludge Removed (m³) from Mary River WWTP	*Sewage Sludge Removed (m³) from Milne Inlet WWTP
1-Mar	61.3	30.3	61.3	30.3	0.0	0.0
2-Mar	70.0	30.3	70.0	30.3	0.0	0.0
3-Mar	40.9	30.3	40.9	30.3	0.0	0.5
4-Mar	40.9	30.3	40.9	30.3	0.0	0.0
5-Mar	81.8	30.3	81.8	30.3	1.0	0.0
6-Mar	40.9	30.3	40.9	30.3	0.0	0.0
7-Mar	40.9	30.3	40.9	30.3	0.0	0.5
8-Mar	58.7	15.1	58.7	15.1	0.0	0.0
9-Mar	16.7	30.3	16.7	30.3	1.0	0.5
10-Mar	51.1	15.1	51.1	15.1	0.0	0.0
11-Mar	60.9	30.3	60.9	30.3	0.0	0.0
12-Mar	62.8	15.1	62.8	15.1	0.0	0.0
13-Mar	20.4	15.1	20.4	15.1	0.0	0.0
14-Mar	0.0	30.3	0.0	30.3	0.0	0.0
15-Mar	80.6	15.1	80.6	15.1	0.0	0.0
16-Mar	81.8	15.1	81.8	15.1	0.0	0.0
17-Mar	61.3	15.1	61.3	15.1	1.0	0.0
18-Mar	61.3	15.1	61.3	15.1	0.0	0.0
19-Mar	81.8	15.1	81.8	15.1	0.0	0.0
20-Mar	229.4	15.1	229.4	15.1	0.0	0.0
21-Mar	0.0	15.1	0.0	15.1	1.0	0.0
22-Mar	0.0	30.3	0.0	30.3	0.0	0.0
23-Mar	38.2	30.3	38.2	30.3	0.0	0.0
24-Mar	64.7	15.1	64.7	15.1	0.0	0.0
25-Mar	0.0	15.1	0.0	15.1	1.0	0.0
26-Mar	0.0	45.4	0.0	45.4	0.0	0.0
27-Mar	40.9	30.3	40.9	30.3	0.0	0.0
28-Mar	115.8	15.1	115.8	15.1	0.0	0.0
29-Mar	23.5	45.4	23.5	45.4	0.0	0.0
30-Mar	70.4	30.3	70.4	30.3	0.5	0.0
31-Mar	23.5	30.3	23.5	30.3	0.0	0.0
Total	1620.5	757.1	1620.5	757.1	5.5	1.5

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

* All Sewage Sludge is now dewatered, pressed and incinerated