

December 29, 2015

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 Igaluit, NU X0A 0H0

RE: Water Licence 2AM-MRY1325 Monthly SNP Report – November 2015

The following is the monthly report for November 2015 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 November 2015, 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 November 2015.

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 November 2015. 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 at 647-253-0596 ext: 6010 or Jim Millard at ext: 6016.

Regards,

Allan Knight, B.Sc.

Environmental Superintendent

Attach: Tables 1, 2 and 3

Cc: Justin Hack, Erik Allain (AANDC)

Reviewed by:

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

Table 1: Monitoring Program Water Sampling Summary for November 2015

Monitoring Program Station	Sampling Date	Lab ID#	Comment		
Milne Port		-			
MP-01 (Sewage Treatment Facility)	November 3, 2015	L1697167-1, 45866	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		
Mary River Mine Site					
MS-01 (Sewage Treatment Facility)	November 3, 2015	L1697161-1, 45865	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		

Monitoring Program Station	Sampling Date	Lab ID#	Comment	
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 pres				

Table 2. Water Chemistry Results - November 2015									
Sample Number	Sample ID	Date Sampled	Parameter Name	Units	Lab				
MILNE PORT SITE			•						
L1697167-1	MP-01	3-Nov-15	pH	7.67	pH units	ALS			
L1697167-1	MP-01	3-Nov-15	Total Suspended Solids	2	2 mg/L				
L1697167-1	MP-01	3-Nov-15	N-NH3 (Ammonia)	0.171	mg/L	ALS			
L1697167-1	MP-01	3-Nov-15	Total Kjeldahl Nitrogen	1.38	mg/L	ALS			
L1697167-1	MP-01	3-Nov-15	Total Phosphorus	13.4	mg/L	ALS			
L1697167-1	MP-01	3-Nov-15	Faecal Coliforms	0	CFU/100 mL	ALS			
L1697167-1	MP-01	3-Nov-15	Biochemical Oxygen Demand	Biochemical Oxygen Demand <2.0		ALS			
L1697167-1	MP-01	3-Nov-15	Oil & Grease - Total	<2.0	mg/L	ALS			
45866	MP-01	3-Nov-15	Toxicity*	non-lethal	mortality %	Aquatox			
MARY RIVER MINE SI	TE								
L1697161-1	MS-01	3-Nov-15	pH	7.44 pH units		ALS			
L1697161-1	MS-01	3-Nov-15	Total Suspended Solids	<2.0 mg/L		ALS			
L1697161-1	MS-01	3-Nov-15	N-NH3 (Ammonia) 0.12 mg/l		mg/L	ALS			
L1697161-1	MS-01	3-Nov-15	Total Kjeldahl Nitrogen <0.15		mg/L	ALS			
L1697161-1	MS-01	3-Nov-15	Total Phosphorus 0.552		mg/L	ALS			
L1697161-1	MS-01	3-Nov-15	Faecal Coliforms 310 C		CFU/100 mL	ALS			
L1697161-1	MS-01	3-Nov-15	Biochemical Oxygen Demand <2.0 mg/L		mg/L	ALS			
L1697161-1	MS-01	3-Nov-15	Oil & Grease - Total	Oil & Grease - Total <2.0 mg/L		ALS			
45865	MS-01	3-Nov-15	Toxicity*	non-lethal	non-lethal mortality %				

Note: *Acute lethality to Rainbow trout, Oncorhynchus mykiss (as per Environment Canada's Environmental Protection Series Method EPS/1/RM/13)

*Acute lethality to Daphnia magna (as per Environment Canada's Environmental Protection Series Method EPS/1/RM/14)

Table 3: Flow and Volume Measurements-Part I Item 11 - November 2015

DATE	Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (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	Sewage Sludge Removed (m3) from Mine Site WWTP to PWSP at Mine Site - MS- MRY-4a	Treated Sewage Effluent (m³) from MP-01 to Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to incinerator	Sewage Sludge Removed (m3) from Milne Port WWTP to PWSP at Milne Port - MP- 01a	Sewage Removed (m³) from Lift Stations to PWSP at Milne Port - MP-01a
1-Nov	61.9	45.4	61.9	0.2	0.0	45.4	0.1	0.0	0.0
2-Nov	67.4	30.3	67.4	0.3	0.0	30.3	0.2	0.0	0.0
3-Nov	33.2	15.1	33.2	0.3	0.0	15.1	0.2	0.0	0.0
4-Nov	112.7	30.3	112.7	0.3	0.0	30.3	0.2	0.0	0.0
5-Nov	32.0	0.0	32.0	0.3	0.0	0.0	0.2	0.0	0.0
6-Nov	82.2	45.4	82.2	0.3	0.0	45.4	0.1	0.0	0.0
7-Nov	42.8	45.4	42.8	0.3	0.0	45.4	0.2	0.0	0.0
8-Nov	37.5	15.1	37.5	0.3	0.0	15.1	0.2	0.0	0.0
9-Nov	50.9	45.4	50.9	0.3	0.0	45.4	0.2	0.0	1.4
10-Nov	20.5	60.6	20.5	0.3	0.0	60.6	0.0	0.0	0.0
11-Nov	75.9	15.1	75.9	0.3	0.0	15.1	0.0	0.0	0.0
12-Nov	49.6	30.3	49.6	0.3	0.0	30.3	0.0	0.0	0.0
13-Nov	47.6	30.3	47.6	0.3	0.0	30.3	0.0	0.0	0.0
14-Nov	51.7	30.3	51.7	0.3	0.0	30.3	0.0	2.4	0.0
15-Nov	44.9	30.3	44.9	0.3	0.0	30.3	0.0	0.0	0.0
16-Nov	56.0	30.3	56.0	0.3	0.0	30.3	0.0	0.0	0.0
17-Nov	50.6	30.3	50.6	0.3	0.0	30.3	0.0	2.4	0.0
18-Nov	50.4	0.0	50.4	0.3	0.0	0.0	0.0	0.0	0.0
19-Nov	54.3	60.6	54.3	0.3	0.0	60.6	0.0	0.0	0.0
20-Nov	62.6	30.3	62.6	0.3	0.0	30.3	0.0	0.0	0.0
21-Nov	63.3	30.3	63.3	0.3	0.0	30.3	0.0	3.2	0.0
22-Nov	39.1	30.3	39.1	0.3	0.0	30.3	0.0	0.0	0.0
23-Nov	47.1	30.3	47.1	0.3	0.0	30.3	0.0	0.0	0.0
24-Nov	67.6	30.3	67.6	0.0	2.5	30.3	0.0	0.0	0.0
25-Nov	53.0	30.3	53.0	0.0	2.0	30.3	0.0	0.0	0.0
26-Nov	79.3	30.3	79.3	0.0	0.0	30.3	0.0	0.0	0.0
27-Nov	34.1	15.1	34.1	0.3	0.0	15.1	0.0	1.6	0.0
28-Nov	72.3	30.3	72.3	0.3	0.0	30.3	0.0	0.0	0.0
29-Nov	43.9	15.1	43.9	0.3	0.0	15.1	0.0	0.0	0.0
30-Nov	56.5	15.1	56.5	0.3	0.0	15.1	0.0	0.0	0.0
Total	1640.8	878.2	1640.8	8.2	4.5	878.2	1.4	9.6	1.4

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