



August 30, 2012

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

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

**RE: Water License 2BB-MRY1114 Monthly SNP Report – July 2012**

---

The following is the monthly report for July 2012 as required under Part I, Item 19 of Water License 2BB-MRY1114.

**SNP Sampling**

During the month of July 2012, samples were collected at MRY-4, MRY-6, MRY-7, MRY-10, MRY-11 and MRY-13A as part of the SNP sampling program. Table 1 presents a list of samples/monitoring required under the Water License 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 as part of the SNP program, are presented in Table 2. Volumes consumed for domestic and drill water purposes, volumes of treated sewage effluent discharged, as well as volumes of oily water discharged at Mary River and Milne Inlet Camps are attached in Table 3.

**SNP Results**

**A) Water Sampling and Analysis Results**

Table 2 provides the analytical results related to SNP sampling requirements for July 2012.

**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 July 2012.

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) / 647-693-9447(site) or by e-mail at [jim.millard@baffinland.com](mailto: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: Andrew Keim and Melissa Joy (AANDC), Stephen Bathory and Joel Fortier (QIA)

**Baffinland Iron Mines Corporation**

Suite 1016 120 Adelaide Street West, Toronto, ON Canada M5H 1T1

Tel: +1 (416) 364-8820 • Fax: +1 (416) 364-0193

[www.baffinland.com](http://www.baffinland.com)



**Table 1: SNP Water Sampling Summary for July 2012**

SNP Station	Sampling Date	Lab ID#	Comment
MRY-1	N/A	N/A	Volume reported daily
MRY-2	N/A	N/A	N/A – Water take location not active
MRY-3	N/A	N/A	Volume reported daily
MRY-4	July 23, 2012 July 29, 2012	973843, 973876 976648, 976926	Volume reported daily
MRY-5	N/A	N/A	N/A RBC not operating
MRY-6 MRY-601 MRY-602 MRY-603 MRY-6 MRY-601 MRY-602 MRY-603 MRY-6	July 7, 2012     July 11, 2012   July 29, 2012	970456 970457 970458 970459 971486 971487 971488 971489 975432	Volume Reported Daily
MRY-7 MRY-701 MRY-702	July 4, 2012	970478 970479 970480	Volume Reported Daily
MRY-8/9	N/A	N/A	N/A – no surface flow observed
MRY-10	July 25, 2012	974515	
MRY-11-TP1 MRY-1101-TP1	July 25, 2012	974510 974511	No surface flow observed, sampled from test pit / sump.
MRY-12	N/A	N/A	N/A – no surface flow observed
MRY-13A	July 25, 2012	974509	

**Notes:**

MRY-601, MRY-602, and MRY-603 are QA/QC samples for MRY-6 (field duplicate, field blank, and travel blank, respectively).

MRY-701 and MRY-702 are QA/QC samples for MRY-7 (field duplicate and field blank, respectively).

MRY-8/9 is downstream of bulk sample pit/bench

MRY-10 is downstream of bulk sample weathered ore/waste rock pile

MRY-11 is downstream of bulk sample crusher area

MRY-11-TP1 corresponds to a test pits a MRY-11.

MRY-1101-TP1 is a QA/QC sample for MRY-11-TP1 (field duplicate)

MRY-12 is downstream of bulk ore stockpile area at Milne Inlet, no flow observed toward receiving environment

MRY-13 is downstream of non-hazardous landfill facility

Table 2. Water Chemistry Results - July 2012

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Unit	Lab
973876	MRY-4	23-Jul-12	Biochemical Oxygen Demana	4	mg/L	Exova Accutest
973876	MRY-4	23-Jul-12	Chemical Oxygen Demana	50	mg/L	Exova Accutest
973843	MRY-4	23-Jul-12	Faecal Coliforms	<10	CFU/100mL	Exova Accutest
973876	MRY-4	23-Jul-12	N-NH3 (Ammonia)	1.24	mg/L	Exova Accutest
973876	MRY-4	23-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
973876	MRY-4	23-Jul-12	Total Suspended Solids	10	mg/L	Exova Accutest
973876	MRY-4	23-Jul-12	pH	7.72	pH units	Exova Accutest
976926	MRY-4	29-Jul-12	Biochemical Oxygen Demana	5	mg/L	Exova Accutest
976926	MRY-4	29-Jul-12	Chemical Oxygen Demana	52	mg/L	Exova Accutest
976648	MRY-4	29-Jul-12	Faecal Coliforms	30	CFU/100mL	Exova Accutest
976926	MRY-4	29-Jul-12	N-NH3 (Ammonia)	1.25	mg/L	Exova Accutest
976926	MRY-4	29-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
976926	MRY-4	29-Jul-12	Total Suspended Solids	16	mg/L	Exova Accutest
976926	MRY-4	29-Jul-12	pH	8.00	pH units	Exova Accutest
970456	MRY-6	07-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970456	MRY-6	07-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
970456	MRY-6	07-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970456	MRY-6	07-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970456	MRY-6	07-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
970457	MRY-601	07-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970457	MRY-601	07-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
970457	MRY-601	07-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970457	MRY-601	07-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970457	MRY-601	07-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
970458	MRY-602	07-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970458	MRY-602	07-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
970458	MRY-602	07-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970458	MRY-602	07-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970458	MRY-602	07-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
970459	MRY-603	07-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970459	MRY-603	07-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
970459	MRY-603	07-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970459	MRY-603	07-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970459	MRY-603	07-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
971486	MRY-6	11-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
971486	MRY-6	11-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
971486	MRY-6	11-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
971486	MRY-6	11-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
971486	MRY-6	11-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
971487	MRY-601	11-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
971487	MRY-601	11-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
971487	MRY-601	11-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
971487	MRY-601	11-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
971487	MRY-601	11-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
971488	MRY-602	11-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
971488	MRY-602	11-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
971488	MRY-602	11-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
971488	MRY-602	11-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
971488	MRY-602	11-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
971489	MRY-603	11-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
971489	MRY-603	11-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
971489	MRY-603	11-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
971489	MRY-603	11-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
971489	MRY-603	11-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
975432	MRY-6	29-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
975432	MRY-6	29-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
975432	MRY-6	29-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
975432	MRY-6	29-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
975432	MRY-6	29-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
970478	MRY-7	04-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970478	MRY-7	04-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
970478	MRY-7	04-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970478	MRY-7	04-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970478	MRY-7	04-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
970479	MRY-701	04-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970479	MRY-701	04-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest

**Table 2. Water Chemistry Results - July 2012**

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Unit	Lab
970479	MRY-701	04-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970479	MRY-701	04-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970479	MRY-701	04-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
970480	MRY-702	04-Jul-12	Benzene	<0.5	ug/L	Exova Accutest
970480	MRY-702	04-Jul-12	Ethylbenzene	<0.5	ug/L	Exova Accutest
970480	MRY-702	04-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
970480	MRY-702	04-Jul-12	Lead (Total)	<0.001	mg/L	Exova Accutest
970480	MRY-702	04-Jul-12	Toluene	<0.5	ug/L	Exova Accutest
974515	MRY-10	25-Jul-12	Oil & Grease	<1	mg/L	Exova Accutest
974515	MRY-10	25-Jul-12	pH	9.13	pH units	Exova Accutest
974515	MRY-10	25-Jul-12	Total Suspended Solids	<2	mg/L	Exova Accutest
974515	MRY-10	25-Jul-12	Arsenic (Total)	0.11	ug/L	Exova Accutest
974515	MRY-10	25-Jul-12	Copper (Total)	1.43	ug/L	Exova Accutest
974515	MRY-10	25-Jul-12	Lead (Total)	0.13	ug/L	Exova Accutest
974515	MRY-10	25-Jul-12	Nickel (Total)	0.67	ug/L	Exova Accutest
974515	MRY-10	25-Jul-12	Zinc (Total)	<3.0	ug/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Oil & Grease	<1	mg/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	pH	8.36	pH units	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Total Suspended Solids	<2	mg/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Arsenic (Total)	0.19	ug/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Copper (Total)	1.89	ug/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Lead (Total)	0.11	ug/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Nickel (Total)	1.36	ug/L	Exova Accutest
974510	MRY-11-TP1	25-Jul-12	Zinc (Total)	<3.0	ug/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Oil & Grease	<1	mg/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	pH	8.37	pH units	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Total Suspended Solids	<2	mg/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Arsenic (Total)	0.17	ug/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Copper (Total)	1.76	ug/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Lead (Total)	0.07	ug/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Nickel (Total)	1.15	ug/L	Exova Accutest
974511	MRY-1101-TP1	25-Jul-12	Zinc (Total)	<3.0	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	pH, Laboratory	8.1	pH units	Exova Accutest
974509	MRY-13A	25-Jul-12	Alkalinity, Total as mg CaCO3 equiv.	127	mg/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Conductivity in Laboratory	287	uS/cm	Exova Accutest
974509	MRY-13A	25-Jul-12	Total Dissolved Solids	187	mg/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Total Suspended Solids	2	mg/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Oil & Grease - Total	<1	mg/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Aluminum (Al) Total	6.8	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Antimony (Sb) Total	<0.10	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Barium (Ba) Total	17.4	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Cadmium (Cd) Total	26.2	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Chromium (Cr) Total	0.52	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Cobalt (Co) Total	<0.10	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Copper (Cu) Total	1.85	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Iron (Fe) Total	10	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Lead (Pb) Total	<0.05	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Lithium (Li) Total	2.13	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Manganese (Mn) Total	0.816	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Molybdenum (Mo) Total	0.192	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Nickel (Ni) Total	9.04	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Selenium (Se) Total	<0.10	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Tin (Sn) Total	<0.10	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Strontium (Sr) Total	14.1	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Thallium (Tl) Total	0.011	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Titanium (Ti) Total	<10	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Uranium (U) Total	0.46	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Vanadium (V) Total	<1.0	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Zinc (Zn) Total	<3.0	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Arsenic (As) Total	0.14	ug/L	Exova Accutest
974509	MRY-13A	25-Jul-12	Mercury (Hg) Total	<0.010	ug/L	Exova Accutest

Table 3: Flow and Volume Measurements-Part I Item 7 - July 2012

DATE	Camp Lake Freshwater Use (Mary River Camp) - Daily Potable Water (m <sup>3</sup> ) - MRY-1	Camp Lake Daily Freshwater Use for Other Purposes - (m <sup>3</sup> ) - MRY-1	Camp Lake Daily Freshwater Use for Milne Inlet - (m <sup>3</sup> ) - MRY-1	Three Km Lake Steensby Inlet Daily Potable Water (m <sup>3</sup> )	Km 32 Lake Milne Inlet Camp Daily Potable Water (m <sup>3</sup> ) MRY-3	Daily Drill Water Use (m3)	Treated Sewage Effluent (m <sup>3</sup> ) from WWTF to PWSP at Mary River Camp - MRY-4	Sewage Sludge Removed (m <sup>3</sup> ) from Mary River WWTP	Treated Sewage Effluent (m <sup>3</sup> ) from PWSP to Sheardown Lake (MRY-4a,b,c)	Treated Oily Water (m <sup>3</sup> ) from Mary River Camp Fuel Storage Facility to Adjacent Tundra (MRY-6)	Treated Oily Water (m <sup>3</sup> ) from Milne Inlet Camp Fuel Storage Facility to Milne Inlet (MRY-7)
1-Jul	11.7	0.0	0.0	0.0	0.0	59.0	11.7	0.0	0.0	30.8	59.1
2-Jul	0.0	0.0	0.0	0.0	0.0	42.8	0.0	0.0	0.0	34.5	124.7
3-Jul	22.3	0.0	0.0	0.0	0.0	12.9	22.3	0.0	0.0	28.8	100.7
4-Jul	0.0	0.0	0.0	8.9	0.0	53.9	0.0	0.0	0.0	28.9	64.7
5-Jul	0.0	0.0	0.0	0.0	0.0	42.1	0.0	0.0	0.0	17.4	2.7
6-Jul	36.3	0.0	0.0	0.0	8.0	13.3	36.3	0.0	0.0	31.7	0.0
7-Jul	0.0	0.0	0.0	8.1	0.0	43.8	0.0	0.0	0.0	1.4	0.0
8-Jul	0.0	0.0	0.0	8.1	0.0	43.1	0.0	0.0	0.0	36.2	0.0
9-Jul	34.4	0.0	0.0	0.0	0.0	45.6	34.4	0.0	0.0	12.4	0.0
10-Jul	11.7	0.0	0.0	0.0	0.0	38.6	11.7	0.0	0.0	17.2	0.0
11-Jul	0.0	0.0	0.0	0.0	0.0	50.3	0.0	0.0	0.0	5.4	0.0
12-Jul	19.3	0.0	0.0	0.0	0.0	14.3	19.3	0.0	0.0	0.0	0.0
13-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Jul	22.7	0.0	0.0	9.5	0.0	0.0	22.7	0.0	0.0	0.0	0.0
15-Jul	0.0	0.0	0.0	0.0	0.0	54.4	0.0	0.0	0.0	0.0	0.0
16-Jul	17.0	0.0	0.0	0.0	16.0	66.9	17.0	0.0	0.0	0.0	0.0
17-Jul	0.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	0.0	0.0	0.0
18-Jul	23.5	0.0	0.0	0.0	0.0	51.4	23.5	0.0	0.0	0.0	0.0
19-Jul	0.0	0.0	0.0	4.2	0.0	27.6	0.0	0.0	0.0	0.0	0.0
20-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Jul	0.0	0.0	0.0	4.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0
22-Jul	32.2	0.0	0.0	0.0	0.0	0.0	32.2	0.0	0.0	0.0	0.0
23-Jul	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Jul	0.0	0.0	0.0	0.0	0.0	41.7	0.0	0.0	0.0	0.0	0.0
25-Jul	27.6	0.0	0.0	4.5	0.0	59.2	27.6	0.0	0.0	0.0	0.0
26-Jul	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0
27-Jul	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0
28-Jul	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Jul	29.5	0.0	0.0	4.3	0.0	0.0	29.5	0.0	0.0	0.0	0.0
30-Jul	0.0	3.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31-Jul	27.3	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	0.0
<b>Total</b>	<b>315.7</b>	<b>10.9</b>	<b>0.0</b>	<b>60.1</b>	<b>24.0</b>	<b>849.3</b>	<b>315.7</b>	<b>0.0</b>	<b>0.0</b>	<b>244.8</b>	<b>351.8</b>

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond