



AGNICO EAGLE

EXPLORATION

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT: MARCH 2014

PRESENTED TO THE NUNAVUT WATER BOARD

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This monthly report is delivered under water license 2BB-MEL0914, PART J, items 13.

1. The Licensee shall maintain Monitoring Stations at the following locations:

Table 1: Monitoring stations

Monitoring Program Station Number	Description
MEL-1	Raw water supply intake at Meliadine Lake
MEL-2	Raw water supply intake at Pump Lake
MEL-3	Immediately downstream of old grey water sump prior to effluent entering wetland area, when flow is observed
MEL-3a	Immediately downstream of upgraded sump prior to the effluent entering upgraded wetland area, when flow is observed
MEL-4	At a point immediately upstream of the discharge from the wetland area / upgraded wetland area to Meliadine Lake
MEL-5	Point of discharge for the Bermed fuel containment facilities
MEL-6	Point of discharge for the contaminated soil storage
MEL-7	Final effluent discharge from the BIODISK treatment system
MEL-8	Point of discharge or runoff from the Non-Hazardous Waste Landfill

2. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes from all sources.

The consumption of fresh water for the site was **53.3m³/day** for the month of March; 29.8m³/day for the drills, 14.9m³/day for the camp and 8.6m³/day for the underground.

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3. The Licensee shall provide the GPS co-ordinates of all locations where sources of water are utilized for all purposes. In UTM nad 1983 zone 15.

- Camp water source: East 541943.0 ; North 6989174.0
- Underground water source: East 540076.0 ; North 6987731.0
- Surface drilling: East 540172.0; North 6987239.0

4. Licensee shall sample at Monitoring Program Station MEL-3, MEL-3a, MEL-4 and MEL-7, monthly during Sewage treatment, effluent discharge and during periods of flow at the point of entry into Meliadine Lake. Samples shall be analyzed for the following parameters:

Biochemical Oxygen Demand – BOD5
Total Suspended Solids
Oil and Grease (and visual)
Fecal Coliforms
pH

MEL-7

During March, the samples respected the licence requirements.

Station: STP-FINAL		March			
DATE	Limits	04/03/2014	12/03/2014	19/03/2014	26/03/2014
Ammonia as N		34.2	61.6	63.6	53.2
Biochemical Oxygen Demand	80	8.6	<6.0	10.5	9.0
Heterotrophic Plate Count (AAHB)		>3000	>3000	50.0	>3000
Nitrate-N		5.1	0.6	0.9	1.4
Nitrate and Nitrite as N		9.71	4.19	3.99	9.29
Nitrite-N		4.6	3.5	3.1	7.9
Oil & Grease-IR	5	<1.0	<1.0	1.4	<1.0
Phosphorus (P)-Total		13.2	10.4	9.7	12.0
TKN		43.30	69.80	65.80	58.80
Total Suspended Solids	100	13.3	<5.0	12.0	19.0
Transmittance %		35.0	39.3	35.6	38.1
pH	6.0-9.5	7.5	7.7	8.0	7.7
Fecal Coliforms	1000	<3	4.0	23.0	43.0
Total Coliforms		430.0	23.0	23.0	-

5. *The Licensee shall, prior to the release of effluent from the Bermed Fuel Containment Facilities at Monitoring Program Station MEL-5 and the contaminated soil storage at MEL-6 for the purpose of demonstrating compliance, sample for the parameters listed under Part D, item 17.*

➤ No release in March.

6. *The Licensee shall obtain representative samples of the water column below any ice where required under part F, item 7. Monitoring shall include but not limited to the following:*

Total Suspended Solids

pH

Electrical Conductivity, and

Total trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and Trace Arsenic and Mercury.

➤ See appendix A

7. **The Licensee shall analyze the samples obtained at Monitoring Program Station MEL-8 for the following parameters:**

pH

Total Suspended Solids (TSS)

Oil & Grease

Total Trace metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Ba, Cd, Cr, Cu, Pb, Ni, Se, Sn, Zn); and Trace Arsenic and Mercury

The Non-Hazardous Waste Landfill is not constructed yet.

Appendix A

Drilling on ice, samples results

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		Pump Lake (A8) Before	Pump Lake (A8) During	Pump Lake (A8) During
Parameters	Unit	19/02/2014	18/03/2014	25/03/2014
Chloride	mg/L	106.0	125.0	118.0
Conductivity	umhos/cm	584	827	758
Hardness (as CaCO3)	mg/L	242	272	272
Mercury (Hg)-Total	mg/L	<0.000020	<0.000020	<0.000020
Sodium Adsorption Ratio		0.45	0.43	0.46
Sulfate		12.9	15	13
TDS (Calculated from EC)	mg/L	380	538	493
Total Suspended Solids	mg/L	<5.0	35	<5.0
pH	pH units	7.32	7.45	7.14
Aluminum (Al)-Total	mg/L	0.0099	0.2	0.0143
Antimony (Sb)-Total	mg/L	0.00027	<0.00020	<0.00020
Arsenic (As)-Total	mg/L	0.00202	0.00905	0.00175
Barium (Ba)-Total	mg/L	0.0835	0.1050	0.0905
Beryllium (Be)-Total	mg/L	<0.00020	<0.00020	<0.00020
Bismuth (Bi)-Total	mg/L	<0.00020	<0.00020	<0.00020
Boron (B)-Total	mg/L	<0.010	<0.010	0.015
Cadmium (Cd)-Total	mg/L	0.000356	0.000166	0.000263
Calcium (Ca)-Total	mg/L	80.5	89.7	91.6
Cesium (Cs)-Total	mg/L	<0.00010	<0.00010	<0.00010
Chromium (Cr)-Total	mg/L	<0.0010	0.0018	<0.0010
Cobalt (Co)-Total	mg/L	<0.00020	0.00052	<0.00020
Copper (Cu)-Total	mg/L	0.00275	0.00416	0.0031
Iron (Fe)-Total	mg/L	0.12	1.09	<0.10
Lead (Pb)-Total	mg/L	0.00209	0.000654	0.000183
Lithium (Li)-Total	mg/L	0.0205	0.0276	0.0249
Magnesium (Mg)-Total	mg/L	9.89	11.6	10.6
Manganese (Mn)-Total	mg/L	0.0244	0.131	0.036
Molybdenum (Mo)-Total	mg/L	0.00035	0.00022	0.00021
Nickel (Ni)-Total	mg/L	0.0313	0.0033	0.0027
Phosphorus (P)-Total	mg/L	<0.10	<0.10	<0.10
Potassium (K)-Total	mg/L	4.87	5.51	5.56
Rubidium (Rb)-Total	mg/L	0.00535	0.00568	0.00588
Selenium (Se)-Total	mg/L	<0.0010	<0.0010	<0.0010
Silicon (Si)-Total	mg/L	1.55	2.15	2.06
Silver (Ag)-Total	mg/L	<0.00010	<0.00010	<0.00010
Sodium (Na)-Total	mg/L	16	16.1	17.5
Strontium (Sr)-Total	mg/L	0.529	0.621	0.584
Tellurium (Te)-Total	mg/L	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.00012	<0.00010	<0.00010
Thorium (Th)-Total	mg/L	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Total	mg/L	<0.00050	0.0073	<0.00050
Tungsten (W)-Total	mg/L	<0.00010	0.00036	<0.00010
Uranium (U)-Total	mg/L	<0.00010	0.00012	<0.00010
Vanadium (V)-Total	mg/L	<0.00020	0.00075	<0.00020
Zinc (Zn)-Total	mg/L	0.0118	0.0192	0.0227
Zirconium (Zr)-Total	mg/L	<0.00040	<0.00040	<0.00040
Oil/Grease-(IR)	mg/L	-	<1.0	<1.0

		2014-BUD Before
Parameters	Unit	25/03/2014
Chloride	mg/L	103.0
Conductivity	umhos/cm	737
Hardness (as CaCO3)	mg/L	271
Mercury (Hg)-Total	mg/L	<0.000020
Oil & Grease-(IR)	mg/L	<1.0
Sodium Adsorption Ratio		0.49
Sulfate	mg/L	18
TDS (Calculated from EC)	mg/L	479
Total Suspended Solids	mg/L	<5.0
pH	pH units	7.1
Aluminum (Al)-Total	mg/L	0.0115
Antimony (Sb)-Total	mg/L	<0.00020
Arsenic (As)-Total	mg/L	0.0017
Barium (Ba)-Total	mg/L	0.0947
Beryllium (Be)-Total	mg/L	<0.00020
Bismuth (Bi)-Total	mg/L	<0.00020
Boron (B)-Total	mg/L	0.019
Cadmium (Cd)-Total	mg/L	0.000023
Calcium (Ca)-Total	mg/L	91.3
Cesium (Cs)-Total	mg/L	<0.00010
Chromium (Cr)-Total	mg/L	<0.0010
Cobalt (Co)-Total	mg/L	<0.00020
Copper (Cu)-Total	mg/L	0.00211
Iron (Fe)-Total	mg/L	0.13
Lead (Pb)-Total	mg/L	<0.000090
Lithium (Li)-Total	mg/L	0.025
Magnesium (Mg)-Total	mg/L	10.4
Manganese (Mn)-Total	mg/L	0.0797
Molybdenum (Mo)-Total	mg/L	<0.00020
Nickel (Ni)-Total	mg/L	0.0027
Phosphorus (P)-Total	mg/L	<0.10
Potassium (K)-Total	mg/L	4.98
Rubidium (Rb)-Total	mg/L	0.00554
Selenium (Se)-Total	mg/L	<0.0010
Silicon (Si)-Total	mg/L	2.08
Silver (Ag)-Total	mg/L	<0.00010
Sodium (Na)-Total	mg/L	18.6
Strontium (Sr)-Total	mg/L	0.568
Tellurium (Te)-Total	mg/L	<0.00020
Thallium (Tl)-Total	mg/L	<0.00010
Thorium (Th)-Total	mg/L	<0.00010
Tin (Sn)-Total	mg/L	<0.00020
Titanium (Ti)-Total	mg/L	<0.00050
Tungsten (W)-Total	mg/L	<0.00010
Uranium (U)-Total	mg/L	<0.00010
Vanadium (V)-Total	mg/L	<0.00020
Zinc (Zn)-Total	mg/L	0.008
Zirconium (Zr)-Total	mg/L	<0.00040

		2014-Woody Before
Parameters	Unit	25/03/2014
Chloride	mg/L	110
Conductivity	umhos/cm	703
Hardness (as CaCO3)	mg/L	267
Mercury (Hg)-Total	mg/L	<0.000020
Oil & Grease-(IR)	mg/L	<1.0
Sodium Adsorption Ratio		0.34
Sulfate	mg/L	12.4
TDS (Calculated from EC)	mg/L	457
Total Suspended Solids	mg/L	<5.0
pH	pH units	7.12
Aluminum (Al)-Total	mg/L	0.0067
Antimony (Sb)-Total	mg/L	<0.00020
Arsenic (As)-Total	mg/L	0.00142
Barium (Ba)-Total	mg/L	0.0873
Beryllium (Be)-Total	mg/L	<0.00020
Bismuth (Bi)-Total	mg/L	<0.00020
Boron (B)-Total	mg/L	0.013
Cadmium (Cd)-Total	mg/L	0.000013
Calcium (Ca)-Total	mg/L	93.5
Cesium (Cs)-Total	mg/L	<0.00010
Chromium (Cr)-Total	mg/L	<0.0010
Cobalt (Co)-Total	mg/L	<0.00020
Copper (Cu)-Total	mg/L	0.00153
Iron (Fe)-Total	mg/L	<0.10
Lead (Pb)-Total	mg/L	<0.000090
Lithium (Li)-Total	mg/L	0.031
Magnesium (Mg)-Total	mg/L	8.18
Manganese (Mn)-Total	mg/L	0.032
Molybdenum (Mo)-Total	mg/L	0.00021
Nickel (Ni)-Total	mg/L	0.003
Phosphorus (P)-Total	mg/L	<0.10
Potassium (K)-Total	mg/L	4.97
Rubidium (Rb)-Total	mg/L	0.00507
Selenium (Se)-Total	mg/L	<0.0010
Silicon (Si)-Total	mg/L	2.12
Silver (Ag)-Total	mg/L	<0.00010
Sodium (Na)-Total	mg/L	12.8
Strontium (Sr)-Total	mg/L	0.696
Tellurium (Te)-Total	mg/L	<0.00020
Thallium (Tl)-Total	mg/L	<0.00010
Thorium (Th)-Total	mg/L	<0.00010
Tin (Sn)-Total	mg/L	<0.00020
Titanium (Ti)-Total	mg/L	<0.00050
Tungsten (W)-Total	mg/L	<0.00010
Uranium (U)-Total	mg/L	<0.00010
Vanadium (V)-Total	mg/L	<0.00020
Zinc (Zn)-Total	mg/L	0.0057
Zirconium (Zr)-Total	mg/L	<0.00040