



AGNICO EAGLE

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT: MAY 2015

PRESENTED TO THE NUNAVUT WATER BOARD

Contact:

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This monthly report is delivered under water license 2BB-MEL1424, PART J, item 13.

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

Table 1: Monitoring stations

Monitoring Program Station Number	Description	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (Volume cubic metres)
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume cubic metres)
MEL-5	Point of discharge for the Bermed Fuel Containment Facilities	Active
MEL-6	Effluent from the Landfarm Treatment Facility prior to release	New
MEL-7	Final Effluent Discharge from the BIODISK treatment system	Active
MEL-8	Point of discharge or runoff from the Non-Hazardous Waste Landfill	(New) Active

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 **36.2 m³/day** for the month of May; 0.7 m³/day for the drilling, 27.1 m³/day*** for the camp and 8.4 m³/day for the underground.

*** The volume for the camp includes the indirect water use.

3. The Licensee shall measure and record the volume of all soil from all locations entering the Landfarm Treatment Facility.

No new material added.

4. The Licensee shall assess and record the concentration of F1-F4 fractions in petroleum hydrocarbons (PHC) in soil that is entering the Land Treatment Unit from all sources and excavations.

Results from the soil samples in the Land Treatment Unit.

SampleID	Sample_Date	Sample_Time	% Moisture (%)_DL 0_1	Benzene (mg/kg)_D L 0_005	Ethyl benzene (mg/kg)_D L 0_015	F1 (C6- C10) (mg/kg)_D L 10	F1-BTEX (mg/kg)_D L 10	F2 (C10- C16) (mg/kg)_D L 25	F3 (C16- C34) (mg/kg)_D L 50	F4 (C34- C50) (mg/kg)_D L 50	m+p- Xylenes (mg/kg)_D L 0_05	Oil and Grease, Total (mg/kg)_D L 500	o-Xylene (mg/kg)_DL 0_05	Toluene (mg/kg)_D L 0_05	Total Hydrocarbon s (C6-C50) (mg/kg)_DL 76	Xylenes (mg/kg)_D L 0_1
BERM 1	10-Aug-14	10:00	12	<0.0050	<0.015	<10	<10	53	<50	<50	<0.050	520	<0.050	<0.050	<76	<0.10
BERM 2	10-Aug-14	10:05	8.8	<0.0050	<0.015	<10	<10	<25	<50	<50	<0.050	<500	<0.050	<0.050	<76	<0.10
BERM 3	10-Aug-14	10:10	9.2	<0.0050	<0.015	<10	<10	104	<50	<50	<0.050	<500	<0.050	<0.050	104	<0.10
BERM 4	10-Aug-14	10:15	12	<0.0050	<0.015	<10	<10	853	105	<50	<0.050	840	<0.050	<0.050	957	<0.10

5. The Licensee shall provide the GPS coordinates 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
- Drilling water source (camp): East 541943.0 ; North 6989174.0

6. The Licensee shall provide the GPS coordinates (in decimal degrees) of all locations where wastes associated with camp operations and exploration activities are deposited.

The landfill has not been constructed yet, so most of the waste is managed in containers.

7. *Licensee shall sample at Monitoring Program Station MEL-7, monthly during wastewater effluent discharge. Samples shall be analyzed for the parameters listed under Part G Item 11.*

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

MEL-7

No exceedances occurred in May.

Station: STP-FINAL		May			
DATE	Limits	2015-05-04	2015-05-11	2015-05-18	2015-05-25
Ammonia as N		32.6	1.2	8.8	2.7
Biochemical Oxygen Demand	80	13.9	11.0	5.5	5.8
Heterotrophic Plate Count (AAHB)		200.0	10.0	40.0	40.0
Nitrate-N		4.6	8.7	13.3	15.9
Nitrate and Nitrite as N		7.88	20.10	15.40	21.10
Nitrite-N		3.3	11.4	2.07	5.2
Oil & Grease-(IR)	5	<2.0	<2.0	<2.0	<2.0
Phosphorus (P)-Total		8.6	9.6	7.81	9.6
TKN		39.3	6.3	12.8	4.4
Total Suspended Solids	100	16.0	19.0	5.0	7.0
Transmittance %		43.0	42.4	48.0	48.0
pH	6.0-9.5	7.6	7.12	7.2	7.14
Fecal Coliforms	1000	<3	<3	<3	<3
Total Coliforms		9.0	<3	<3	<3

8. *The Licensee shall, prior to the release of effluent from the Bermed Fuel Containment Facilities at Monitoring Program Station Mel-5 and the Landfarm Treatment Facility at Monitoring Program Station MEL-6 for the purpose of demonstrating compliance, sample for the parameters listed under Part D item 15.*

➤ No release in May.

9. *The Licensee shall obtain representative samples of the water column below any ice where required under part F, Items 5 and 6. 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.

- No drilling was done in May on lake.

10. The inspector, Christine Wilson (AANDC inspector), requested AEM to continue monitoring the ponded water at the rear of these facilities during times of flow with the same parameters as MEL-8 and the result must be included in the monthly monitoring report provided to the Nunavut Water Board (“the Board”) and the Inspector.

- Ponded water was present only last June and here are the results:

MEL-8		2014
Station:		MEL-8
Date Sampled:		01/06/2014
Sample ID:		L1464577
Laboratory-Measured	Units	Results
Mercury (Hg)-Total	mg/L	<0.000020
Aluminum (Al)-Total	mg/L	1.52
Antimony (Sb)-Total	mg/L	0.00038
Arsenic (As)-Total	mg/L	0.0248
Barium (Ba)-Total	mg/L	0.0164
Beryllium (Be)-Total	mg/L	<0.00020
Bismuth (Bi)-Total	mg/L	<0.00020
Boron (B)-Total	mg/L	0.015
Cadmium (Cd)-Total	mg/L	0.000026
Calcium (Ca)-Total	mg/L	14.8
Cesium (Cs)-Total	mg/L	<0.00010
Chromium (Cr)-Total	mg/L	0.0076
Cobalt (Co)-Total	mg/L	0.00175
Copper (Cu)-Total	mg/L	0.0165
Iron (Fe)-Total	mg/L	2.56
Lead (Pb)-Total	mg/L	0.00139
Lithium (Li)-Total	mg/L	0.0045
Magnesium (Mg)-Total	mg/L	2.91
Manganese (Mn)-Total	mg/L	0.12
Molybdenum (Mo)-Total	mg/L	0.00086
Nickel (Ni)-Total	mg/L	0.0075
Phosphorus (P)-Total	mg/L	<0.10
Potassium (K)-Total	mg/L	2.31
Rubidium (Rb)-Total	mg/L	0.00359
Selenium (Se)-Total	mg/L	<0.0010
Silicon (Si)-Total	mg/L	2.8
Silver (Ag)-Total	mg/L	<0.00010
Sodium (Na)-Total	mg/L	3.99
Strontium (Sr)-Total	mg/L	0.0899
Tellurium (Te)-Total	mg/L	<0.00020
Thallium (Tl)-Total	mg/L	<0.00010
Thorium (Th)-Total	mg/L	0.00027
Tin (Sn)-Total	mg/L	0.00104
Titanium (Ti)-Total	mg/L	0.0268
Tungsten (W)-Total	mg/L	0.00031
Uranium (U)-Total	mg/L	0.00018
Vanadium (V)-Total	mg/L	0.00385
Zinc (Zn)-Total	mg/L	0.0105
Zirconium (Zr)-Total	mg/L	0.00135
Total Suspended Solids	mg/L	27
Oil & Grease-(IR)	mg/L	<1.0