

MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013



AGNICO EAGLE

CANADA

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT: APRIL 2013

PRESENTED TO THE NUNAVUT WATER BOARD

MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013

Contact:

David Frenette

Environment Coordinator
AGNICO-EAGLE Mines Ltd
Exploration Division Canada
C.P. 87
765, Chemin de la mine Goldex
Val-d'Or (Qc) Canada
J9P 4N9
Phone : 1 (819) 874-5980 (ext. 3622)
Cell : 1 (819) 355-9271
David.frenette@agnicoeagle.com

MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013

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 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 212.1m³/day for the month of April 2013; 191.9m³/day for the drills and 20.2m³/day for the camp.

- 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**

- Camp water source: East 541943,0 ; North 6989174,0
- Drilling water sources: East 538406,5; North 6988092,8
East 539928,8; North 6987647,2
East 532833,6; North 6982071,5
East 540235,1; North 6987062,5
East 542651,7; North 6982270,0
East 532519,4; North 6982418,8
East 542166,6; North 6986276,4
East 544279,0; North 6985849,5

- 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

All the parameters for the month are respected, excepted for the fecal coliforms where there are 2 weeks with an exceedance.

MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013

Station: STP-OUT (MEL-7)		April			
DATE	Limits	02/04/2013	09/04/2013	16/04/2013	23/04/2013
Ammonia as N (mg/L)		35.9	18.8	7.8	18.4
Biochemical Oxygen Demand (mg/L)	80	15.4	8.5	<6.0	6.0
Heterotrophic Plate Count (AAHB) (CFU/ml)		>3000	>3000	140.0	310.0
Nitrate-N (mg/L)		12.7	13.4	20.7	19.0
Nitrate and Nitrite as N (mg/L)		14.00	14.90	20.90	19.30
Nitrite-N (mg/L)		1.3	1.4	0.208	0.31
Oil & Grease-IR) (mg/L)	5	<1.0	<1.0	<1.0	<1.0
Phosphorus (P)-Total (mg/L)		12.7	11.7	12.2	11.7
TKN (mg/L)		41.5	24.8	12.6	25.9
Total Suspended Solids (mg/L)	100	<5.0	17.0	12.0	10.0
Transmittance (%T)		25.2	22.5	35.7	38.3
pH (pH units)	6.5-9	7.6	7.66	7.0	7.4
Fecal Coliforms (MPN/100ml)	1000	46,000.0	24,000.0	<3	750.0
Total Coliforms (MPN/100ml)		46,000.0	24,000.0	93.0	750.0

Corrective actions

- A design was submitted by Nordikeau in collaboration with BraultMaxtech (UV representative) to recirculate the water in the UV more than one time to increase the contact time between the water and the UV light. It seems that we do not have enough turbulence in the UV system due to the low volume of water treated (approx. 20m³/day and the UV could treat 80m³/day).



MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013

- Water filters (5 microns) were installed between the Biodisk and the UV systems to catch a part of the TSS and help the disinfection.



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 discharge for the month of April.

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.

MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013

			2013-Woody (Beg)	2013-Woody (Mid)	2013-Woody (Mid)
Parameters	Unit	Limits	02/03/2013	17/03/2013	23/03/2013
Chloride	mg/L		76.7	92	85
Conductivity	umhos/cm		423	454	462
Hardness (as CaCO3)	mg/L		174	188	196
Mercury (Hg)-Total	mg/L	0.000026	<0.000020	<0.000020	<0.000020
Oil & Grease-(IR)	mg/L		<1.0	<1.0	<1.0
Sodium Adsorption Ratio			0.26	0.29	0.29
Sulfate	mg/L		8.09	9.38	8.51
TDS (Calculated from EC)	mg/L		275	295	301
Total Suspended Solids	mg/L	10	<5.0	<5.0	<5.0
pH	pH units	6.5-9.0	6.93	6.95	6.96
Aluminum (Al)-Total	mg/L	0.1	0.006	<0.0050	0.0069
Antimony (Sb)-Total	mg/L		<0.00020	<0.00020	<0.00020
Arsenic (As)-Total	mg/L	0.005	0.00133	0.00146	0.00142
Barium (Ba)-Total	mg/L		0.0586	0.0707	0.0683
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	1.5	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L	Hardness dependent	0.000259	0.000372	0.000031
Calcium (Ca)-Total	mg/L		61.1	65	68
Cesium (Cs)-Total	mg/L		<0.00010	<0.00010	<0.00010
Chromium (Cr)-Total	mg/L		<0.0010	<0.0010	<0.0010
Cobalt (Co)-Total	mg/L		<0.00020	<0.00020	<0.00020
Copper (Cu)-Total	mg/L	Hardness dependent	0.0021	0.00155	0.00223
Iron (Fe)-Total	mg/L	0.3	0.11	0.15	0.13
Lead (Pb)-Total	mg/L	Hardness dependent	0.00012	0.000142	0.0301
Lithium (Li)-Total	mg/L		0.0216	0.0216	0.024
Magnesium (Mg)-Total	mg/L		5.17	6.15	6.29
Manganese (Mn)-Total	mg/L		0.0613	0.0639	0.0718
Molybdenum (Mo)-Total	mg/L		0.00024	0.00025	0.00026
Nickel (Ni)-Total	mg/L	Hardness dependent	0.0023	0.0027	0.0028
Phosphorus (P)-Total	mg/L		<0.10	<0.10	<0.10
Potassium (K)-Total	mg/L		3.06	3.45	3.44
Rubidium (Rb)-Total	mg/L		0.00344	0.004	0.00377
Selenium (Se)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Silicon (Si)-Total	mg/L		1.5	1.72	1.76
Silver (Ag)-Total	mg/L	0.0001	<0.00010	0.00023	<0.00010
Sodium (Na)-Total	mg/L		7.8	9.16	9.35
Strontium (Sr)-Total	mg/L		0.438	0.482	0.504
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.0008	<0.00010	<0.00010	<0.00010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00020	0.00058	0.02
Titanium (Ti)-Total	mg/L		0.00053	<0.00050	0.00074
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	0.015	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	mg/L		<0.00020	<0.00020	<0.00020
Zinc (Zn)-Total	mg/L	0.03	0.0088	0.0053	0.0068
Zirconium (Zr)-Total	mg/L		<0.00040	<0.00040	<0.00040
Field pH	pH units				7.18
Field T0	oC				0.2
Field Conductivity	ms/cm				0.37

MELIADINE GOLD PROJECT
ENVIRONMENTAL REPORT APRIL 2013

			2013-Angry Bird Beg	2013-Angry Bird Mid	2013-Angry Bird Mid
Parameters	Unit	Limits	28/03/2013	13/04/2013	20/04/2013
Chloride	mg/L		50.3	52.3	52.5
Conductivity	umhos/cm		383	397	400
Hardness (as CaCO3)	mg/L		163	153	165
Mercury (Hg)-Total	mg/L	0.000026	<0.000020	<0.000020	<0.000020
Oil & Grease-(IR)	mg/L		<1.0	<1.0	<1.0
Sodium Adsorption Ratio			0.33	0.35	0.35
Sulfate	mg/L		9.29	9.39	9.33
TDS (Calculated from EC)	mg/L		249	258	260
Total Suspended Solids	mg/L	10	<5.0	<5.0	<5.0
pH	pH units	6.5-9.0	7.17	6.94	6.99
Aluminum (Al)-Total	mg/L	0.1	<0.0050	0.0103	0.0114
Antimony (Sb)-Total	mg/L		<0.00020	<0.00020	<0.00020
Arsenic (As)-Total	mg/L	0.005	0.00255	0.00241	0.0027
Barium (Ba)-Total	mg/L		0.0546	0.0583	0.0575
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	1.5	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L	Hardness dependent	0.000035	0.000224	0.000396
Calcium (Ca)-Total	mg/L		56	50.7	55.9
Cesium (Cs)-Total	mg/L		<0.00010	<0.00010	<0.00010
Chromium (Cr)-Total	mg/L		<0.0010	<0.0010	<0.0010
Cobalt (Co)-Total	mg/L		<0.00020	<0.00020	<0.00020
Copper (Cu)-Total	mg/L	Hardness dependent	0.00141	0.00213	0.00168
Iron (Fe)-Total	mg/L	0.3	0.11	0.17	0.2
Lead (Pb)-Total	mg/L	Hardness dependent	<0.000090	0.00019	0.000335
Lithium (Li)-Total	mg/L		0.0097	0.0103	0.0101
Magnesium (Mg)-Total	mg/L		5.77	6.43	6.08
Manganese (Mn)-Total	mg/L		0.0732	0.108	0.105
Molybdenum (Mo)-Total	mg/L		<0.00020	<0.00020	<0.00020
Nickel (Ni)-Total	mg/L	Hardness dependent	<0.0020	<0.0020	<0.0020
Phosphorus (P)-Total	mg/L		<0.10	<0.10	<0.10
Potassium (K)-Total	mg/L		2.81	2.79	2.98
Rubidium (Rb)-Total	mg/L		0.00306	0.00325	0.00349
Selenium (Se)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Silicon (Si)-Total	mg/L		2.04	2.3	2.25
Silver (Ag)-Total	mg/L	0.0001	<0.00010	0.00063	<0.00010
Sodium (Na)-Total	mg/L		9.72	10	10.4
Strontium (Sr)-Total	mg/L		0.252	0.257	0.252
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.0008	<0.00010	<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	0.00118	0.00079
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	0.015	<0.00010	<0.00010	<0.00010
Vanadium (V)-Total	mg/L		<0.00020	<0.00020	<0.00020
Zinc (Zn)-Total	mg/L	0.03	0.0048	0.01	0.0107
Zirconium (Zr)-Total	mg/L		<0.00040	<0.00040	<0.00040
Field pH	pH units		NA	7.4	6.7
Field T0	oC		NA	0.2	0.2
Field Conductivity	ms/cm		NA		

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT APRIL 2013

			2013-A1
			MID
Parameters	Unit	Limits	21/04/2013
Chloride	mg/L		109
Conductivity	umhos/cm		873
Hardness (as CaCO3)	mg/L		384
Mercury (Hg)-Total	mg/L	0.000026	<0.000020
Oil & Grease-(IR)	mg/L		<1.0
Sodium Adsorption Ratio			0.54
Sulfate	mg/L		24.8
TDS (Calculated from EC)	mg/L		567
Total Suspended Solids	mg/L	10	20
pH	pH units	6.5-9.0	7.03
Aluminum (Al)-Total	mg/L	0.1	0.005
Antimony (Sb)-Total	mg/L		<0.00020
Arsenic (As)-Total	mg/L	0.005	0.0199
Barium (Ba)-Total	mg/L		0.111
Beryllium (Be)-Total	mg/L		<0.00020
Bismuth (Bi)-Total	mg/L		<0.00020
Boron (B)-Total	mg/L	1.5	<0.010
Cadmium (Cd)-Total	mg/L	Hardness dependent	0.000048
Calcium (Ca)-Total	mg/L		132
Cesium (Cs)-Total	mg/L		<0.00010
Chromium (Cr)-Total	mg/L		<0.0010
Cobalt (Co)-Total	mg/L		0.00124
Copper (Cu)-Total	mg/L	Hardness dependent	0.00247
Iron (Fe)-Total	mg/L	0.3	6.41
Lead (Pb)-Total	mg/L	Hardness dependent	<0.000090
Lithium (Li)-Total	mg/L		0.0203
Magnesium (Mg)-Total	mg/L		13.6
Manganese (Mn)-Total	mg/L		0.766
Molybdenum (Mo)-Total	mg/L		0.00062
Nickel (Ni)-Total	mg/L	Hardness dependent	0.0036
Phosphorus (P)-Total	mg/L		<0.10
Potassium (K)-Total	mg/L		5.72
Rubidium (Rb)-Total	mg/L		0.00756
Selenium (Se)-Total	mg/L	0.001	<0.0010
Silicon (Si)-Total	mg/L		5.37
Silver (Ag)-Total	mg/L	0.0001	<0.00010
Sodium (Na)-Total	mg/L		24.2
Strontium (Sr)-Total	mg/L		0.554
Tellurium (Te)-Total	mg/L		<0.00020
Thallium (Tl)-Total	mg/L	0.0008	<0.00010
Thorium (Th)-Total	mg/L		<0.00010
Tin (Sn)-Total	mg/L		<0.00020
Titanium (Ti)-Total	mg/L		0.00093
Tungsten (W)-Total	mg/L		<0.00010
Uranium (U)-Total	mg/L	0.015	0.00045
Vanadium (V)-Total	mg/L		0.00044
Zinc (Zn)-Total	mg/L	0.03	<0.0020
Zirconium (Zr)-Total	mg/L		<0.00040
Field pH	pH units		6.85
Field T0	oC		0.3
Field Conductivity	ms/cm		

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.
