

MELIADINE GOLD PROJECT
MONTHLY ENVIRONMENTAL REPORT JUNE
2012



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MONTHLY ENVIRONMENTAL REPORT: JUNE 2012

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	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (volume cubic metres)
MEL-2	Raw water supply intake at Pump Lake	Active (volume cubic metres)
MEL-3	Immediately downstream of old grey water sump prior to effluent entering wetland area, when flow observed	Active
MEL-3a	Immediately downstream of upgraded sump prior to the effluent entering upgraded wetland area, when flow is observed	Active
MEL-4	At a point immediately upstream of the discharge from the wetland area / upgraded wetland area to Meliadine Lake	Active
MEL-5	Point of discharge for the Bermed Fuel Containment Facilities	Active
MEL-6	Point of discharge for the contaminated soil storage	Active
MEL-7	Final effluent discharge from the BIODISK treatment system	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 **243,8 m³/day** for the month of June 2012; 223,0 m³/day for the drills and 20,8 m³/day for the camp.

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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

- Camp water source: East 541943,0 ; North 6989174,0

Table 2: Drilling sources of water June 2012

X_coord	Y_coord
537636	6989747
538644	6989082
540528	6986761
543931	6985905
543068	6987507
540204	6987560

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

Here are the MEL-7 results for June.

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Table 3 MEL-7 results

Station: STP-OUT		May				June			
DATE	Limits	02/05/2012	07/05/2012	22/05/2012	30/05/2012	06/06/2012	13/06/2012	20/06/2012	27/06/2012
Ammonia as N		37.4	138.0	113.0	x	57.1	42.4	14.4	27.8
Biochemical Oxygen Demand	80	10.2	10.2	13.2	24.4	18.7	16.8	21.5	19.8
Heterotrophic Plate Count (AAHB)		960.0	>3000	>3000	>3000	>3000	>3000	>3000	>3000
Nitrate-N		57.2	0.4	5.6	10.1	24.9	23.5	21.2	42.3
Nitrate and Nitrite as N		57.20	X	52.40	59.00	27.40	-	23.4	42.30
Nitrite-N		<0.050	31.5	46.9	48.9	2.6	-	2.16	<0.050
Oil & Grease-(IR)	5	<1.0	4.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phosphorus (P)-Total		8.7	19.6	24.7	16.8	12.6	17.9	18.7	-
TKN		37.9	116.0	99.0	71.8	x	52.8	-	31.3
Total Suspended Solids	100	63.3	16.0	13.0	73.3	46.7	82	36.0	32.0
Transmittance		35.5	19.2	13.5	21.9	29.4	23.9	24.0	-
pH	6.5-9	4.3	7.7	7.9	7.68	7.5	7.45	7.07	6.4
Fecal Coliforms	1000	4.0	7,500.0	330.0	2,300.0	63.0	2070	230	500.0
Total Coliforms		9.0	12,000.0	OVERGROWN	15,000.0	OVERGROWN	OVERGROWN	430	9,300.0

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.

- Discharge of water from the Berm Fuel Containment Facilities (MEL-5) has been done in June. Authorization has been given to AEM by Christine Wilson (AANDC). Here is the data of the sampling analysis:

Table 4 MEL-5 results

SampleID	Sample_Date	Sample Time	Benzene (mg/L)	Ethyl benzene (mg/L)	F1 (C6-C10) (mg/L)	Lead (Pb)-Total (mg/L)	m+p-Xylenes (mg/L)	Oil and Grease, Total (mg/L)	o-Xylene (mg/L)	Phenols (4AAP) (mg/L)	Toluene (mg/L)	Xylenes (mg/L)
BLADDERS MEL-5-OUT	28-May-12	14:00	<0.00050	<0.00050	<0.10	0.000243	<0.00050	<2.0	<0.00050	0.0040	<0.0010	<0.0015
License Limit (mg/L)			0.37	0.09		0.001		15		0.02	0.002	

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.

- No drilling on ice for the month of June.

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7. Water quality monitoring

Waterbody		Units	CCME	A7-8															
Year	2007			2008		2010				2011					2012				
Date Sampled	18/07/2007			07/10/2011	21/06/2008	14/07/2008	20/06/2010	22/07/2010	26/08/2010	23/09/2010	2011/06/23	2011/07/12	2011/08/28	2011/09/11	2011/10/09	25/06/2012	01/07/2012	01/08/2012	01/09/2012
GPS Coordinates	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690	540748 - 6986690				
LAB	-	-	-	-	-	-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB				
Field Measurements																			
Water Temperature	oC	17.8	1.9	6.85	16.70	3	19.3	11.1	6.5	-	-	13.7	4.63	1.2	7.96				
pH	pH units	8.12	8.02	-	6.53	7.5	8.1	7.33	7.76	-	-	7.24	7.21	7.17	12.3				
Conductivity	(µS/cm)			74	109	-	-	-	-	-	-	0	165	188	177				
Laboratory-Measured																			
Ion balance	%	90.5	97.5	-	106	Low EC	-	-	-	-	-	101	-	-	102				
Biochemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	1	-	-	-	<6.0				
Ammonia as N	mg/L	2.33	-	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.010				
Mercury (Hg)-Total	mg/L	0.000026	<0.0002	-	<0.00002	<0.00002	<0.00010	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	0.02	0.0042	0.007	-	-	-	<0.010	0.012	<0.010	<0.010	<0.010	<0.010				
Phosphorus (P)-Total Reactive	mg/L	-	-	<0.02	<0.002	<0.004	-	-	-	<0.010	-	<0.010	<0.010	<0.010	0.001				
Total Kjeldahl Nitrogen	mg/L	-	-	0.2	0.208	0.4	0.35	-	<1	<1	-	0.38	0.5	0.4	0.21				
Total Suspended Solids	mg/L	-	-	3	3	3	-	6	2	2	-	<5.0	-	<5.0	<5.0				
Alkalinity, Total (as CaCO3)	mg/L	30	33	24.8	27	14.9	42	42	46	30.3	32.7	36.6	37.6	37.5	-				
Bicarbonate (HCO3)	mg/L	37	40	24.8	33	18.1	42	42	46	37	39.8	44.7	45.9	45.8	-				
Carbonate (CO3)	mg/L	<5.0	<5.0	<2.0	<5.0	<5.0	<2	<2	<2	<0.60	<0.40	<0.60	<0.60	<0.60	-				
Hydroxide (OH)	mg/L	<5.0	<5.0	<2.0	<5.0	<5.0	<2	<2	<2	<0.40	<0.60	<0.40	<0.40	<0.40	-				
Calcium (Ca)-Dissolved	mg/L	-	-	15.1	15.4	9.78	-	-	-	-	-	24.6	23.5	26.3	24.2				
Magnesium (Mg)-Dissolved	mg/L	-	-	2.03	1.79	1.31	-	-	-	-	-	3.02	3.01	3.34	3.01				
Potassium (K)-Dissolved	mg/L	-	-	2	0.93	0.63	-	-	-	-	-	1.41	1.28	1.54	1.52				
Sodium (Na)-Dissolved	mg/L	-	-	2.5	2.61	1.9	-	-	-	-	-	4.95	4.35	5.37	4.75				
Chloride	mg/L	12	17	16.9	17	13.2	31.9	-	33.6	8.95	28.8	32.1	30.9	31.9	34.2				
Conductivity	umhos/cm	106	135	113	118	81.1	249	303	177	93.6	159	176	175	178	188				
Fluoride	mg/L	0.12	-	<0.02	-	-	-	-	-	<0.10	<0.10	0.1	<0.10	<0.10	<0.10				
Hardness (as CaCO3)	mg/L	41	52	46	49	29.8	79	64	79	30.6	64.9	68.8	79.6	75.8	72.6				
Nitrate-N	mg/L	13	<0.1	<0.1	0.0168	<0.1	<0.050	0.02	0.02	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Nitrate and Nitrite as N	mg/L		<0.1	<0.1	-	<0.1	<0.071	-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071				
Nitrite-N	mg/L	0.197	<0.05	<0.05	<0.001	<0.05	<0.050	0.01	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Sulfate	mg/L		3.2	4.1	2.78	2.1	1.36	7	-	2.07	3.15	3.48	4.27	4.88	4.47				
TDS (Calculated)	mg/L		51	64	-	-	37.1	166	202	118	46.5	81	91.6	94.3	90.2				
Aluminum (Al)-Total	mg/L	0.1	0.01	-	0.005	0.0023	<0.010	0.529*	0.021	0.04	0.0066	<0.0050	0.021	<0.020	0.0077				
Antimony (Sb)-Total	mg/L		<0.0004	-	<0.0005	<0.0003	<0.00040	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020				
Arsenic (As)-Total	mg/L	0.005	0.0023	-	0.00115	0.003	0.00108	0.0029	0.0022	<0.0005	0.00046	0.00235	0.0028	0.0026	0.00136				
Barium (Ba)-Total	mg/L		0.014	-	0.02	0.0143	0.0125	0.0197	0.016	0.0164	0.0117	0.0199	0.019	0.0207	0.0172				
Beryllium (Be)-Total	mg/L		<0.001	-	<0.001	<0.0002	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00020				
Boron (B)-Total	mg/L	1.5	<0.05	-	<0.01	<0.002	<0.050	<0.01	<0.01	<0.01	<0.010	<0.010	<0.030	<0.030	<0.010				
Cadmium (Cd)-Total	mg/L	Equation	<0.0002	-	0.000017	<0.00005	<0.000050	<0.00008	<0.00008	0.00015*	<0.000010	<0.000010	<0.00020	<0.00020	0.000015				
Calcium (Ca)-Total	mg/L		-	-	-	-	10.8	25.3	21.3	25.3	10.3	21.7	22.8	26.1	24.4				
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	-	0.0068	<0.00010	<0.00010	<0.00050	<0.00050	<0.00010				
Chromium (Cr)-Total	mg/L		<0.005	-	<0.001	0.00026	<0.0050	<0.0006	<0.0006	-	<0.0010	<0.0010	<0.00020	<0.00020	<0.0010				
Cobalt (Co)-Total	mg/L		<0.002	-	<0.0003	<0.0001	<0.0020	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00020				
Copper (Cu)-Total	mg/L	Equation	0.001	-	0.001	0.0009	<0.0010	0.0011	0.0009	0.001	0.00074	0.00065	<0.0020	<0.0020	0.00062				
Iron (Fe)-Total	mg/L	0.3	-	-	0.067	0.138	0.078	<0.01	<0.01	0.18	<0.10	0.12	0.17	<0.10	<0.10				
Lead (Pb)-Total	mg/L	Equation	<0.0001	-	<0.0005	<0.0001	<0.00010	<0.0003	<0.0003	<0.0003	<0.000090	<0.000090	<0.0010	<0.0010	0.000119				
Lithium (Li)-Total	mg/L		0.01	-	0.005	-	<0.010	<0.1	<0.1	<0.1	<0.0020	0.0051	0.012	0.0125	0.0077				
Magnesium (Mg)-Total	mg/L		-	-	2.03	1.8	1.42	3.9	2.7	4	1.2	2.63	2.87	3.53	3.2				
Manganese (Mn)-Total	mg/L		0.014	-	0.00646	0.0241	0.0292	0.0199	0.0056	0.0098	0.0145	0.0191	0.0164	0.0223	0.0089				
Molybdenum (Mo)-Total	mg/L	0.073	<0.005	-	<0.001	<0.00016	<0.0050	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.00050	<0.00050	0.0002				
Nickel (Ni)-Total	mg/L	Equation	0.002	-	0.001	0.00051	<0.0020	0.0012	0.0015	0.0038	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020				
Phosphorus (P)-Total	mg/L		-	-	-	-	<0.020	-	-	-	<0.20	<0.20	<0.50	<0.50	<0.10				
Potassium (K)-Total	mg/L		-	-	2	0.95	0.71	0.89	0.84	2.1	1.08	1.14	1.25	1.52	1.31				
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	-	-	0.00115	0.00124	0.00149	0.00159	0.00134				
Selenium (Se)-Total	mg/L	0.001	<0.0004	-	<0.001	<0.0002	<0.00040	<0.001	<0.001	<0.001	<0.0010	<0.0010	<0.0050	<0.0050	<0.0010				
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	-	-	0.143	0.512	0.57	0.74	0.564				
Silver (Ag)-Total	mg/L	0.0001	<0.0004	-	<0.00002	<0.0001	<0.00010	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.00010				
Sodium (Na)-Total	mg/L		-	-	2.5	2.6	2.3	6.3	3.9	5.7	4.76	4.09	4.59	5.43	4.71				
Strontium (Sr)-Total	mg/L		-	-	-	0.0837	-	0.15	0.14	0.15	0.0321	0.14	0.147	0.155	0.14				
Tellurium (Te)-Total	mg/L		-	-	-	-	-	-	-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020				
Thallium (Tl)-Total	mg/L	0.0008	<0.0001	-	<0.0002	<0.00003	<0.00010	-	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.00010				
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.00010				
Tin (Sn)-Total	mg/L		<0.0005	-	<0.0005	-	<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00020				
Titanium (Ti)-Total	mg/L		0.001	-	0.01	-	<0.0010	0.02	<0.01	<0.01	0.00022	<0.00020	<0.0010	<0.0010	0.00056				
Tungsten (W)-Total	mg/L		-	-	-	-	-	-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	0.00047				
Uranium (U)-Total	mg/L	0.015	<0.0001	-	<0.0002	<0.00005	<0.00010	<0.001	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00010				
Vanadium (V)-Total	mg/L		<0.001	-	<0.00019	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020				
Zinc (Zn)-Total	mg/L	0.03	0.006	-	0.005	0.0028	<0.0040	<0.001	<0.001	0.009	<0.0050	<0.0050	<0.020	<0.020	0.0031				
Zirconium (Zr)-Total	mg/L		-	-	-	-	-	-	-	-	<0.00040	<0.00040	<0.0010	<0.0010	<0.00040				
Ortho-Phospahte (PO4-P)	mg/L		-	<0.01	<0.001	<></													

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Waterbody	Units	CCME	A8												
Year			2007		2008	2009	2010		2011		2012				
Date Sampled			18/07/2007	08/10/2007	15/07/2008	27/04/2009	20/06/2010	23/09/2010	2011/07/12	22/07/2011	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
GPS Coordinates			0540681, 6986702	0540681, 6986702	0540181, 6987142	0540181, 6987142	0540181, 6987142	0540181, 6987142	0540181, 6987142	0540181, 6987142	0540181, 6987142	0540181, 6987142			
LAB			-	-	-	-	-	-	ALS LAB	ALS LAB	ALS				
Field Measurments															
Water Temperature	oC		17.6	0.5	14.14	0.10	2.8	6.7	-	20.4	7.55				
pH	pH units		8.06	7.81	7.8	6.41	7.7	7.67	-	8.24	13.8				
Conductivity	(µS/cm)		-	-	101	489	-	-	-	-	180				
Laboratory-Measured															
Ion balance	%		91.2	96.7	107	102	-	-	-	-	99.6				
Biochemical Oxygen Demand	mg/L		-	2	-	-	-	-	1.5	-	<6.0				
Ammonia as N	mg/L	2.33	-	<0.050	<0.050	0.212	<0.050	<0.05	<0.050	<0.05	<0.010				
Mercury (Hg)-Total	mg/L	0.000026	<0.0002	-	<0.00002	<0.00002	<0.00010	<0.00001	<0.000050	<0.00001	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	0.02	0.005	0.0073	-	-	0.01	-	0.0017				
Phosphorus (P)-Total Reactive	mg/L		-	0.02	0.003	0.0065	-	-	-	-	0.0011				
Total Kjeldahl Nitrogen	mg/L		-	0.2	0.2	1.01	0.41	2	-	-	0.25				
Total Suspended Solids	mg/L		-	3	17	5	-	1	<5.0	5	<5.0				
Alkalinity, Total (as CaCO3)	mg/L		30	33	28	125	9.6	43	32.6	42	-				
Bicarbonate (HCO3)	mg/L		37	40	34	153	11.7	43	39.8	42	-				
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0	<2	<0.60	-	-				
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0	<2	<0.40	<2	-				
Calcium (Ca)-Dissolved	mg/L		-	-	14.8	71.8	6.66	-	-	-	24				
Magnesium (Mg)-Dissolved	mg/L		-	-	1.75	8.95	0.93	-	-	-	3.07				
Potassium (K)-Dissolved	mg/L		-	-	0.87	4.07	<0.50	-	-	-	1.56				
Sodium (Na)-Dissolved	mg/L		-	-	2.42	13	1.5	-	-	-	4.72				
Chloride	mg/L		12	17	16	78.4	9.26	33.8	29.3	30.6	34.2				
Conductivity	umhos/cm		106	134	117	514	55.4	195	160	248	188				
Fluoride	mg/L	0.12	-	-	-	-	-	-	<0.10	-	<0.10				
Hardness (as CaCO3)	mg/L		41	51	49	216	20.5	78	64.4	76	72.6				
Nitrate-N	mg/L	13	0.1	0.1	0.1	0.052	<0.050	0.14	<0.050	0.01	<0.050				
Nitrate and Nitrite as N	mg/L		<0.1	<0.1	<0.1	<0.071	<0.071	-	<0.071	-	<0.071				
Nitrite-N	mg/L	0.197	<0.050	<0.050	<0.050	<0.050	<0.050	<0.01	<0.050	<0.01	<0.050				
Sulfate	mg/L		3.2	4.1	2.1	9.82	1.14	3	3.3	8	4.71				
TDS (Calculated)	mg/L		51	64	57	261	25.3	130	81.5	165	91.3				
Aluminum (Al)-Total	mg/L	0.1	0.01	-	0.0018	0.005	<0.010	0.002	<0.0050	<0.002	0.0077				
Antimony (Sb)-Total	mg/L		<0.0004	-	<0.00003	<0.0002	<0.0040	<0.0001	<0.00020	<0.0001	<0.00020				
Arsenic (As)-Total	mg/L	0.005	0.0024	-	0.00003	0.0037	0.00074	0.0049	0.0019	0.0029	0.00136				
Barium (Ba)-Total	mg/L		0.014	-	0.0128	0.077	0.0086	0.016	0.0203	0.0184	0.0234				
Beryllium (Be)-Total	mg/L		0.001	-	0.0002	0.001	<0.0010	0.0006	<0.00020	<0.0005	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	-	0.001	-	-	<0.00020	-	<0.00020				
Boron (B)-Total	mg/L	1.5	<0.05	-	<0.002	<0.05	<0.050	<0.01	<0.010	<0.01	<0.010				
Cadmium (Cd)-Total	mg/L	Equation	<0.0002	-	<0.00005	<0.00001	<0.000050	0.00014	<0.000010	<0.00008	0.000015				
Calcium (Ca)-Total	mg/L		-	-	-	-	7.2	25.2	21.4	24.2	24.4				
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	<0.00010	-	<0.00010				
Chromium (Cr)-Total	mg/L		<0.005	-	<0.00006	<0.004	<0.0050	0.0053	<0.0010	<0.0006	<0.0010				
Cobalt (Co)-Total	mg/L		<0.002	-	0.00011	<0.0003	<0.0020	-	<0.00020	-	<0.00020				
Copper (Cu)-Total	mg/L	Equation	0.002	-	0.0017	0.0013	<0.0010	0.0008	0.0006	0.0006	0.00062				
Iron (Fe)-Total	mg/L	0.3	0.16	-	0.072	-	0.052	0.18	0.11	<0.01	<0.10				
Lead (Pb)-Total	mg/L	Equation	0.0007	-	<0.00006	0.005	<0.00010	0.0027	<0.000090	0.0197	0.000119				
Lithium (Li)-Total	mg/L		<0.01	-	-	0.0136	<0.010	<0.1	0.006	<0.1	0.0083				
Magnesium (Mg)-Total	mg/L		-	-	-	-	0.96	3.8	2.68	3.9	3.03				
Manganese (Mn)-Total	mg/L		0.012	-	0.0069	0.0855	0.0469	0.0106	0.0151	0.0157	0.013				
Molybdenum (Mo)-Total	mg/L	0.073	<0.005	-	0.00015	<0.0001	<0.0050	<0.0005	<0.00020	<0.0005	0.0002				
Nickel (Ni)-Total	mg/L	Equation	<0.002	-	0.00042	0.0025	<0.0020	0.0035	<0.0020	0.0012	<0.0020				
Phosphorus (P)-Total	mg/L		-	-	-	-	<0.020	-	<0.20	-	<0.10				
Potassium (K)-Total	mg/L		-	-	-	-	0.46	2.2	1.16	0.89	1.31				
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	0.0013	-	0.00141				
Selenium (Se)-Total	mg/L	0.001	<0.008	-	<0.0003	<0.0005	<0.00040	<0.001	<0.0010	<0.001	<0.0010				
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	0.358	-	0.564				
Silver (Ag)-Total	mg/L	0.0001	<0.0004	-	<0.0001	<0.00002	<0.00010	<0.0005	<0.00010	<0.0005	<0.00010				
Sodium (Na)-Total	mg/L		-	-	-	-	1.7	5.5	4.1	5.9	4.52				
Strontium (Sr)-Total	mg/L		-	-	0.082	0.408	-	0.15	0.149	0.14	0.173				
Tellurium (Te)-Total	mg/L		-	-	-	-	-	-	<0.00020	-	<0.00020				
Thallium (Tl)-Total	mg/L	0.0008	<0.0001	-	<0.00003	<0.0002	<0.00010	-	<0.00010	-	<0.00010				
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	<0.00010	-	<0.00010				
Tin (Sn)-Total	mg/L		<0.05	-	-	<0.0005	<0.050	<0.001	<0.00020	<0.001	<0.00020				
Titanium (Ti)-Total	mg/L		<0.001	-	-	-	<0.0010	<0.01	<0.00020	0.01	0.00056				
Tungsten (W)-Total	mg/L		-	-	-	-	-	-	<0.0010	-	0.00047				
Uranium (U)-Total	mg/L	0.015	<0.0001	-	<0.00005	0.000061	<0.00010	<0.001	<0.00010	<0.001	<0.00010				
Vanadium (V)-Total	mg/L		<0.001	-	0.00016	<0.001	<0.0010	<0.0005	<0.00020	<0.0005	<0.00020				
Zinc (Zn)-Total	mg/L	0.03	0.009	-	0.0008	0.0104	<0.0040	0.006	<0.0050	<0.001	0.0031				
Zirconium (Zr)-Total	mg/L		-	-	-	-	-	-	<0.00040	-	<0.00040				
Ortho-Phosphate (PO4-P)	mg/L		-	<0.01	<0.001	<0.001	<0.010	<0.01	-	0.02	-				
Turbidity	NTU		-	0.5	-	-	-	0.36	0.57	0.7	0.47				
pH	pH units	6.5-9.0	7.8	7.7	7.7	7.76	7.18	7.42	7.87	7.04	-				

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE

2012

Waterbody	Units	CCME	A9														
Year			2007		2010				2011		2012						
Date Sampled			2007/07/18	2007/10/07	20/06/2010	22/07/2010	26/08/2010	23/09/2010	2011/06/22	2011/07/12	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012		
GPS Coordinates			540194-6988142	540194-6988142	540194-6988142	540194-6988142	540194-6988142	540194-6988142	540194-6988142	540194-6988142	540194-6988142	540194-6988142					
LAB			-	-	-	-	-	-	ALS LAB	ALS LAB	ALS						
Field Measurments																	
Water Temperature	oC		21.7	0.7	12.1	19.5	-	4.2	-	-	7.48						
pH	pH units		8.6	7.79	8	8.39	7.66	7.68	-	-	18.2						
Conductivity	(µS/cm)		-	-	-	-	-	-	-	-	483						
Laboratory-Measured																	
Ion balance	%		101	96.5	90.9	-	-	-	-	-	99.7						
Biochemical Oxygen Demand	mg/L		-	2	-	-	-	-	-	2.5	<6.0						
Ammonia as N	mg/L	2.33	-	<0.050	<0.050	0.05	0.09	<0.05	<0.050	<0.050	<0.010						
Mercury (Hg)-Total	mg/L	0.000026	<0.0005	-	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000020						
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	0.02	-	-	-	-	0.01	0.019	<0.010						
Phosphorus (P)-Total Reactive	mg/L		-	0.02	-	-	-	-	<0.010	-	<0.010						
Total Kjeldahl Nitrogen	mg/L		-	0.3	0.84	-	1	<1	-	-	0.53						
Total Suspended Solids	mg/L		-	3	-	4	12	3	-	<5.0	<5.0						
Alkalinity, Total (as CaCO3)	mg/L		52	60	34.6	58	65	83	35.9	61.7	-						
Bicarbonate (HCO3)	mg/L		64	74	42.2	58	<2	83	43.8	75.2	-						
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	-						
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<2	-	<2	<0.40	<0.40	-						
Calcium (Ca)-Dissolved	mg/L		-	-	59.8	-	-	-	-	-	63.8						
Magnesium (Mg)-Dissolved	mg/L		-	-	6.2	-	-	-	-	-	7.95						
Potassium (K)-Dissolved	mg/L		-	-	2.64	-	-	-	-	-	2.7						
Sodium (Na)-Dissolved	mg/L		-	-	7.9	-	-	-	-	-	10.5						
Chloride	mg/L		182	282	123	193	-	175	52.3	113	111						
Conductivity	umhos/cm		759	1100	502	852	857	600	251	501	508						
Fluoride	mg/L	0.12	-	-	-	-	-	-	<0.10	<0.10	<0.10						
Hardness (as CaCO3)	mg/L		300	422	175	299	212	303	109	213	192						
Nitrate-N	mg/L	13	0.1	0.1	<0.050	0.02	0.09	0.15	<0.050	<0.050	<0.050						
Nitrate and Nitrite as N	mg/L		0.1	0.1	<0.071	-	-	-	<0.071	<0.071	<0.071						
Nitrite-N	mg/L	0.197	<0.05	<0.05	<0.050	<0.01	-	<0.01	<0.050	<0.050	<0.050						
Sulfate	mg/L		13.3	21.6	6.6	14	-	10	5.89	15.8	25.1						
TDS (Calculated)	mg/L		353	518	227	568	-	400	128	259	243						
Aluminum (Al)-Total	mg/L	0.1	<0.01	-	<0.010	<0.002	0.024	<0.002	0.0294	0.0059	0.0066						
Antimony (Sb)-Total	mg/L		0.0004	-	0.00058	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.00020						
Arsenic (As)-Total	mg/L	0.005	0.0041	-	0.00203	0.0041	0.0038	0.0079	0.00242	0.00405	0.00245						
Barium (Ba)-Total	mg/L		0.099	-	0.0709	0.0785	0.0776	0.0783	0.0431	0.0706	0.0624						
Beryllium (Be)-Total	mg/L		<0.001	-	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.00020						
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00020						
Boron (B)-Total	mg/L	1.5	<0.05	-	<0.050	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010						
Cadmium (Cd)-Total	mg/L	Equation	<0.0002	-	<0.000050	<0.00008	<0.00008	0.00033	<0.000010	<0.000010	0.00002						
Calcium (Ca)-Total	mg/L		-	-	66.9	97.6	72.6	99.3	36.8	71.8	69.3						
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00010						
Chromium (Cr)-Total	mg/L		<0.005	-	<0.0050	<0.0006	<0.0006	0.0071	<0.0010	<0.0010	<0.0010						
Cobalt (Co)-Total	mg/L		<0.002	-	<0.0020	-	-	-	<0.00020	<0.00020	<0.00020						
Copper (Cu)-Total	mg/L	Equation	0.004	-	0.0012	0.0023	0.0025	0.002	0.00127	0.00234	0.00168						
Iron (Fe)-Total	mg/L	0.3	0.179	-	0.144	<0.01	0.08	0.89	0.37	0.23	0.21						
Lead (Pb)-Total	mg/L	Equation	0.0004	-	<0.00010	0.016	-	<0.0003	0.000103	<0.000090	0.000104						
Lithium (Li)-Total	mg/L		0.04	-	0.03	<0.1	<0.1	<0.1	0.0111	0.0203	0.0248						
Magnesium (Mg)-Total	mg/L		-	-	6.75	13.4	7.5	13.5	4.28	8.28	7.54						
Manganese (Mn)-Total	mg/L		0.013	-	0.0039	0.0069	0.0219	0.0076	0.0219	0.0153	0.00752						
Molybdenum (Mo)-Total	mg/L	0.073	<0.005	-	<0.0050	<0.0005	<0.0005	<0.0005	0.0002	0.00038	0.00036						
Nickel (Ni)-Total	mg/L	Equation	<0.005	-	0.0029	0.0075	0.0069	0.0129	0.0026	0.0028	0.0025						
Phosphorus (P)-Total	mg/L		-	-	<0.020	-	-	-	<0.20	<0.20	<0.10						
Potassium (K)-Total	mg/L		-	-	2.94	2.8	-	5.1	1.67	2.7	2.73						
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	0.00167	0.00291	0.00258						
Selenium (Se)-Total	mg/L	0.001	0.0022	-	<0.00040	0.001	-	0.006	<0.0010	0.0014	<0.0010						
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	1.14	0.541	0.176						
Silver (Ag)-Total	mg/L	0.0001	<0.0004	-	<0.00050	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.00010						
Sodium (Na)-Total	mg/L		-	-	9.1	20.6	-	16	5.12	9.79	9.34						
Strontium (Sr)-Total	mg/L		-	-	-	0.64	-	0.82	0.267	0.542	0.488						
Tellurium (Te)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00020						
Thallium (Tl)-Total	mg/L	0.0008	<0.0001	-	<0.00010	-	-	-	<0.00010	<0.00010	<0.00010						
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00010						
Tin (Sn)-Total	mg/L		<0.05	-	<0.00010	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00020						
Titanium (Ti)-Total	mg/L		<0.001	-	<0.0010	0.06	0.03	0.04	0.00116	0.00045	0.00087						
Tungsten (W)-Total	mg/L		<0.001	-	-	-	-	-	<0.0010	<0.0010	0.0002						
Uranium (U)-Total	mg/L	0.015	<0.0001	-	<0.00010	<0.001	<0.001	<0.001	<0.00010	<0.00010	<0.00010						
Vanadium (V)-Total	mg/L		<0.001	-	<0.0010	<0.0005	0.002	<0.0005	<0.00020	0.00022	<0.00020						
Zinc (Zn)-Total	mg/L	0.03	0.008	-	<0.0040	<0.001	0.013	0.01	<0.0050	<0.0050	0.0032						
Zirconium (Zr)-Total	mg/L		-	-	-	-	-	-	<0.00040	<0.00040	<0.00040						
Ortho-Phosphate (PO4-P)	mg/L		-	<0.01	<0.010	0.003	-	<0.01	-	-	-						
Turbidity	NTU		-	0.5	-	0.92	2.1	0.73	0.71	1.53	0.84						
pH	pH units	6.5-9.0	7.9	7.8	7.79	7.73	-	7.9	7.63	8.1	-						

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE 2012

Waterbody	Units	CCME	A13															
Year			2007		2010				2011					2012				
Date Sampled			2007/08/12	2007/10/07	20/06/2010	22/10/2010	26/08/2010	23/09/2010	2011/06/22	2011/07/12	2011/08/29	2011/09/11	2011/10/09	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
GPS Coordinates			0539828, 6988676	0539828, 6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676	539828-6988676			
LAB			-	-	-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB				
Field Measurements																		
Water Temperature	oC		10.4	0.3	13.4	19.2	9	4.2	-	-	7.8	5.12	0.3	8.6				
pH	pH units		7.56	7.66	7.7	8.42	7.59	7.69	-	-	8.28	7.3	7.2	7.89				
Conductivity (µS/cm)			-	-	-	-	-	-	-	-	-	1576	1489	432				
Laboratory-Measured																		
Ion balance	%		103	94.1	91.2	-	-	-	-	-	92.6	-	-	94.4				
Biochemical Oxygen Demand	mg/L		-	2	-	-	-	-	-	2.3	-	-	-	<6.0				
Ammonia as N	mg/L	2.33	0.06	0.31	<0.050	0.05	0.08	<0.05	<0.050	<0.050	<0.050	0.123	<0.050	0.042				
Mercury (Hg)-Total	mg/L	0.000026	-	-	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	0.02	0.02	-	-	-	-	0.011	0.014	0.011	0.011	<0.010	<0.010				
Phosphorus (P)-Total Reactive	mg/L		-	<0.02	-	-	-	-	<0.010	-	<0.010	<0.010	<0.010	0.013				
Total Kjeldahl Nitrogen	mg/L		0.6	0.6	0.7	-	<1	<1	-	-	1.07	0.66	0.38	0.44				
Total Suspended Solids	mg/L		4	3	-	4	3	<1	-	<5.0	-	-	<5.0	<5.0				
Alkalinity, Total (as CaCO3)	mg/L		30	51	22.6	60	55	55	30.4	42.4	96	25.1	31.7	36				
Bicarbonate (HCO3)	mg/L		37	62	27.6	60	55	55	37.1	51.7	117	30.6	38.7	44				
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	<0.60	<0.60	<0.60	<12				
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<2	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	<6.8				
Calcium (Ca)-Dissolved	mg/L		-	-	103	-	-	-	-	-	390	226	179	57.9				
Magnesium (Mg)-Dissolved	mg/L		-	-	6.57	-	-	-	-	-	46.5	21.8	21.6	6.94				
Potassium (K)-Dissolved	mg/L		-	-	4.97	-	-	-	-	-	11.1	7.78	4.9	2.88				
Sodium (Na)-Dissolved	mg/L		-	-	12.9	-	-	-	-	-	36.7	24.6	23.5	12.3				
Chloride	mg/L		716	372	228	197	-	230	42.2	85	877	511	364	109				
Conductivity	umhos/cm		2370	1460	835	947	953	676	212	369	2450	1560	1220	482				
Fluoride	mg/L	0.12	-	-	-	-	-	-	<0.10	<0.10	<0.50	<0.50	<0.10	-				
Hardness (as CaCO3)	mg/L		1020	487	284	321	245	343	76.7	159	1070	712	571	160				
Nitrate-N	mg/L	13	0.1	0.5	<0.050	0.02	0.07	0.09	<0.050	<0.050	<0.25	<0.25	<0.050	<0.050				
Nitrate and Nitrite as N	mg/L		0.1	0.6	<0.071	-	-	-	<0.071	<0.071	<0.35	<0.35	<0.071	<0.071				
Nitrite-N	mg/L	0.197	<0.05	0.08	<0.050	<0.01	-	<0.01	<0.050	<0.050	<0.25	<0.25	<0.050	<0.050				
Sulfate	mg/L		14.3	77.2	4.73	14	-	20	5.96	6.13	25.4	63.4	56	24.8				
TDS (Calculated)	mg/L		1170	719	374	-	635	450	101	186	1440	896	681	386				
Aluminum (Al)-Total	mg/L	0.1	-	-	0.048	<0.002	0.004	0.002	0.0216	0.0126	0.021	0.025	<0.020	0.0698				
Antimony (Sb)-Total	mg/L		-	-	<0.0016	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Arsenic (As)-Total	mg/L	0.005	-	-	0.032	0.0049	0.0017	<0.0005	0.00164	0.00293	0.0039	0.0027	0.0023	0.00201				
Barium (Ba)-Total	mg/L		-	-	0.0751	0.0838	0.0873	0.0882	0.0297	0.0527	0.321	0.209	0.149	0.0523				
Beryllium (Be)-Total	mg/L		-	-	<0.0040	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Boron (B)-Total	mg/L	1.5	-	-	<0.050	<0.01	<0.01	<0.01	<0.010	<0.010	<0.030	<0.030	<0.030	0.016				
Cadmium (Cd)-Total	mg/L	Equation	-	-	<0.000050	<0.00008	<0.00008	<0.00008	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	<0.000010				
Calcium (Ca)-Total	mg/L		-	-	107	105	82.8	110	25	53.9	359	240	198	54				
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Chromium (Cr)-Total	mg/L		-	-	<0.0050	<0.0006	0.0006	0.0064*	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010				
Cobalt (Co)-Total	mg/L		-	-	<0.0020	-	-	-	<0.00020	<0.00020	<0.00050	0.00086	<0.00050	0.00028				
Copper (Cu)-Total	mg/L	Equation	-	-	<0.0040	0.0025	0.0017	0.0012	0.00124	0.00182	<0.0020	0.0025	<0.0020	0.00152				
Iron (Fe)-Total	mg/L	0.3	-	-	0.507	<0.01	0.57*	1.5*	0.42	0.34	<0.10	0.82	0.48	0.45				
Lead (Pb)-Total	mg/L	Equation	-	-	0.00051	<0.0003	<0.0003	0.0033	<0.000090	0.000098	<0.0010	<0.0010	<0.0010	0.000105				
Lithium (Li)-Total	mg/L		-	-	0.065	<0.1	<0.1	<0.1	0.0064	0.0136	0.182	0.101	0.0578	0.0232				
Magnesium (Mg)-Total	mg/L		-	-	6.73	14.4	9.2	16.8	3.44	5.96	43.3	27.3	18.7	8.34				
Manganese (Mn)-Total	mg/L		-	-	0.111	0.0248	0.0217	0.0427	0.019	0.014	0.0123	0.0894	0.078	0.0279				
Molybdenum (Mo)-Total	mg/L	0.073	-	-	<0.0050	<0.0005	<0.0005	<0.0005	0.00033	0.00031	<0.00050	<0.00050	<0.00050	0.00064				
Nickel (Ni)-Total	mg/L	Equation	-	-	0.0051	0.0072	0.008	0.0139	0.0024	<0.0020	0.0029	0.0082	<0.0020	0.0042				
Phosphorus (P)-Total	mg/L		-	-	<0.020	-	-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10				
Potassium (K)-Total	mg/L		-	-	5.12	3.7	2.8	5	1.23	1.97	10.4	8.04	5.29	3.8				
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	0.00128	0.00188	0.00938	0.00644	0.00379	0.00278				
Selenium (Se)-Total	mg/L	0.001	-	-	0.0052	0.0002	0.003	0.006	<0.0010	0.0011	<0.0050	0.0168	<0.0050	<0.0010				
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	0.793	0.509	2.94	3.12	2.32	0.7				
Silver (Ag)-Total	mg/L	0.0001	-	-	<0.0020	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Sodium (Na)-Total	mg/L		-	-	13.2	21.4	10.3	15.6	5.11	7.6	33.3	31	19.6	16.6				
Strontium (Sr)-Total	mg/L		-	-	-	0.88	-	0.83	0.16	0.353	2.32	1.91	1.12	0.428				
Tellurium (Te)-Total	mg/L		-	-	-	-	0.71	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Thallium (Tl)-Total	mg/L	0.0008	-	-	<0.00040	-	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010				
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Tin (Sn)-Total	mg/L		-	-	<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020				
Titanium (Ti)-Total	mg/L		-	-	<0.0024	0.08	0.04	0.05	0.00064	0.00052	0.0017	0.0016	0.0014	0.00334				
Tungsten (W)-Total	mg/L		-	-	-	-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	0.00047				
Uranium (U)-Total	mg/L	0.015	-	-	<0.00040	<0.001	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Vanadium (V)-Total	mg/L		-	-	<0.0020	0.0005	0.0006	<0.0005	<0.00020	0.0002	<0.0020	<0.0020	<0.0020	<0.00020				
Zinc (Zn)-Total	mg/L	0.03	-	-	<0.016	<0.001	0.005	0.										

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE 2012

Waterbody	Units	CCME	A15															
Year			2007		2010				2011					2012				
Date Sampled			2007/08/12	2007/10/07	20/06/2010	22/07/2010	26/08/2010	23/09/2010	2011/06/22	2011/07/12	2011/08/29	2011/09/11	2011/10/09	21/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
GPS Coordinates			0539732, 6988798	0539732, 6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798	539731.8-6988798			
LAB			-	-	-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB				
Field Measurements																		
Water Temperature	oC		23.8	1.9	14.2	19.2	8.8	3.4	-	-	7.2	3.93	0.3	1.3				
pH	pH units		8.29	7.04	7.7	8.2	7.55	7.76	-	-	8.75	7.07	7.15	7.41				
Conductivity	(µS/cm)		-	-	-	-	-	-	-	-	0	1302	1354	432				
Laboratory-Measured																		
Ion balance	%		100	92.9	103	-	-	-	-	-	97.2	-	-	94.9				
Biochemical Oxygen Demand	mg/L		-	2	-	-	-	-	-	1.8	-	-	-	<6.0				
Ammonia as N	mg/L	2.33	-	<0.05	<0.050	0.06	0.05	<0.05	0.056	<0.050	<0.050	<0.050	<0.050	0.034				
Mercury (Hg)-Total	mg/L	0.000026	<0.0004	-	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	0.02	-	-	-	-	<0.010	0.018	0.012	<0.010	0.011	<0.010				
Phosphorus (P)-Total Reactive	mg/L		-	0.02	-	-	-	-	<0.010	-	<0.010	<0.010	<0.010	0.023				
Total Kjeldahl Nitrogen	mg/L		-	0.6	0.91	-	<1	<1	-	-	1.06	0.42	0.45	0.43				
Total Suspended Solids	mg/L		-	4	-	10	10	3	-	<5.0	-	-	<5.0	7				
Alkalinity, Total (as CaCO3)	mg/L		36	51	27.6	65	56	54	23.7	41.5	12.6	26.6	30.8	27				
Bicarbonate (HCO3)	mg/L		44	62	33.7	65	56	54	28.9	50.6	15.4	32.4	37.6	33				
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	<0.60	<0.60	<0.60	<12				
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<2	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	<6.8				
Calcium (Ca)-Dissolved	mg/L		-	-	71.7	-	-	-	-	-	577	196	188	253				
Magnesium (Mg)-Dissolved	mg/L		-	-	8.73	-	-	-	-	-	48.3	21.1	21.1	20.7				
Potassium (K)-Dissolved	mg/L		-	-	3.19	-	-	-	-	-	20.9	6.45	5.25	13.1				
Sodium (Na)-Dissolved	mg/L		-	-	9.9	-	-	-	-	-	77.3	22.5	20.2	40.2				
Chloride	mg/L		210	267	141	313	-	223	22.9	100	1250	409	362	149				
Conductivity	umhos/cm		807	1020	547	1372	961	702	128	416	3230	1310	1220	676				
Fluoride	mg/L	0.12	-	-	-	-	-	-	<0.10	<0.10	<0.50	<0.50	<0.10	-				
Hardness (as CaCO3)	mg/L		317	384	215	489	248	350	52.7	182	1400	613	487	711				
Nitrate-N	mg/L	13	<0.1	<0.1	<0.050	0.01	0.05	0.02	<0.050	<0.050	<0.25	<0.25	<0.050	<0.25				
Nitrate and Nitrite as N	mg/L		<0.1	<0.1	<0.071	-	-	-	<0.071	<0.071	<0.35	<0.35	<0.071	<0.35				
Nitrite-N	mg/L	0.197	<0.05	<0.05	<0.050	<0.01	-	0.01	<0.050	<0.050	<0.25	<0.25	<0.050	<0.25				
Sulfate	mg/L		6.8	16.8	7.7	9	-	25	1.56	5.84	106	66.2	54.2	24.3				
TDS (Calculated)	mg/L		368	471	259	-	641	468	61.4	208	2090	753	640	1390				
Aluminum (Al)-Total	mg/L	0.1	0.04	-	0.015	0.006	0.065	0.008	0.0265	0.0333	0.032	0.028	0.03	0.0613				
Antimony (Sb)-Total	mg/L		<0.0004	-	<0.00040	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Arsenic (As)-Total	mg/L	0.005	0.0032	-	0.00299	0.0054	0.0015	0.0068*	0.00101	0.00305	0.0036	0.0019	0.0029	0.0134				
Barium (Ba)-Total	mg/L		0.123	-	0.0713	0.1248	0.0892	0.0805	0.0231	0.0548	0.403	0.17	0.152	0.224				
Beryllium (Be)-Total	mg/L		<0.001	-	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Boron (B)-Total	mg/L	1.5	<0.050	-	<0.050	<0.01	<0.01	<0.01	<0.010	0.011	<0.030	<0.030	<0.030	0.047				
Cadmium (Cd)-Total	mg/L	Equation	<0.0002	-	<0.000050	<0.00008	<0.00008	<0.00008	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	0.000049				
Calcium (Ca)-Total	mg/L		-	-	74.4	165	84.4	110	17.4	62.5	494	203	166	251				
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Chromium (Cr)-Total	mg/L		<0.005	-	<0.0050	<0.0006	<0.0006	0.0070*	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010				
Cobalt (Co)-Total	mg/L		<0.002	-	<0.0020	-	-	-	0.00027	<0.00020	<0.00050	0.00061	<0.00050	0.00096				
Copper (Cu)-Total	mg/L	Equation	0.003	-	0.0015	0.0026	0.0015	0.0011	0.00092	0.00178	0.0026	0.0022	<0.0020	0.00182				
Iron (Fe)-Total	mg/L	0.3	0.695	-	0.218	0.18	0.84*	1.8*	0.38	0.44	0.77	0.45	0.86	1.77				
Lead (Pb)-Total	mg/L	Equation	<0.0001	-	0.00011	<0.0003	0.0036	0.0008	<0.000090	0.000096	<0.0010	<0.0010	<0.0010	0.00179				
Lithium (Li)-Total	mg/L		0.03	-	0.026	<0.1	<0.1	<0.1	0.0034	0.0166	0.258	0.0718	0.052	0.216				
Magnesium (Mg)-Total	mg/L		-	-	8.62	18.6	9.1	18.3	2.23	6.29	41.1	25.6	17.8	20.1				
Manganese (Mn)-Total	mg/L		0.006	-	0.0679	0.0043	0.0291	0.0739	0.0596	0.00917	0.0525	0.036	0.0949	0.174				
Molybdenum (Mo)-Total	mg/L	0.073	<0.005	-	<0.0050	0.0005	<0.0005	<0.0005	0.00022	0.00094	<0.00050	<0.00050	<0.00050	0.00234				
Nickel (Ni)-Total	mg/L	Equation	0.006	-	0.0051	0.0094	0.0071	0.0152	0.0026	0.0022	0.0045	0.0065	<0.0020	0.0049				
Phosphorus (P)-Total	mg/L		-	-	<0.020	-	-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10				
Potassium (K)-Total	mg/L		-	-	3.26	4.3	2.1	5.1	0.801	1.96	17.4	6.68	4.55	12.4				
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	0.00101	0.00251	0.0167	0.00473	0.00343	0.0142				
Selenium (Se)-Total	mg/L	0.001	0.0012	-	0.00157	0.005	0.002	0.01	<0.0010	0.0017	<0.0050	0.013	<0.0050	<0.0010				
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	0.945	0.826	0.73	2.87	2.77	0.903				
Silver (Ag)-Total	mg/L	0.0001	<0.0004	-	<0.00050	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Sodium (Na)-Total	mg/L		-	-	9.8	22.1	9.6	13.6	2.26	6.48	63.8	26.6	17.1	38.8				
Strontium (Sr)-Total	mg/L		-	-	-	1.2	0.69	0.78	0.102	0.444	4.18	1.54	1.16	2.59				
Tellurium (Te)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Thallium (Tl)-Total	mg/L	0.0008	<0.0002	-	<0.00010	-	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010				
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Tin (Sn)-Total	mg/L		<0.050	-	<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020				
Titanium (Ti)-Total	mg/L		<0.001	-	<0.0010	0.11	0.04	0.05	0.00065	0.00056	0.0013	0.0015	0.0015	0.00221				
Tungsten (W)-Total	mg/L		<0.0010	-	-	-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	0.00063				
Uranium (U)-Total	mg/L	0.015	<0.0002	-	<0.00010	<0.001	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Vanadium (V)-Total	mg/L		0.001	-	0.0016	<0.0005	<0.0005	<0.0005	<0.00020	0.00021	<0.0020	<0.0020	<0.0020	<0.00020				
Zinc (Zn)-Total	mg/L	0.03	<0.004	-	<0.0040	<0.001	0.006	0.011	<0.0050	<0.0050	<0.020	<0.020	<0.020	0.0066				
Zirconium (Zr)-Total	mg/L		-	-	-	-	-	-	<0.00040	<0.00040	<0.0010	<0.0010	<0.0010	<0.00040				
Turbidity	NTU		-	1.6	-	3.8	6.9	1.7	1.2	2	10.1	0.67	3.13	12				
pH	pH units	6.5-9.0	7.7	7.5	7.66	7.69	7.7	7.48	7.65	7.97	7.18	7.6	7.66	7.48				
Ortho-Phosphate (PO4-P)	mg/L		-	<0.01	<0.010	0.002	0.07	<0.01	-	-	-	-	-	-				
Total Oil and Grease	mg/L		-	<1.0	-	-	-	-	<1.0	-	-	-	-	-				

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE
2012

Waterbody	Units	CCME	A38												
Year			2007		2010				2011		2012				
Date Sampled			2007/07/18	2007/10/07	20/06/2010	22/07/2010	26/08/2010	23/09/2010	2011/06/22	2011/07/12	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
GPS Coordinates			540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254	540500-6988254
LAB			-	-	-	-	-	-	ALS LAB	ALS LAB	ALS LAB				
Field Measurments															
Water Temperature	oC		20.4	0.9	9.1	19.2	9.4	4.4	-	-	7.53				
pH	pH units		8.49	7.68	7.9	8.69	7.69	7.58	-	-	15				
Conductivity	(µS/cm)		-	-	-	-	-	-	-	-	715				
Laboratory-Measured															
Ion balance	%		95.7	97.2	104	-	-	-	-	-	104				
Biochemical Oxygen Demand	mg/L		-	2	-	-	-	-	-	2.3	<6.0				
Ammonia as N	mg/L	2.33	-	0.05	0.2	0.06	0.05	<0.05	<0.050	<0.050	0.097				
Mercury (Hg)-Total	mg/L	0.000026	<0.0002	-	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	0.02	-	-	-	-	0.011	0.013	0.0029				
Phosphorus (P)-Total Reactive	mg/L		-	0.02	-	-	-	-	<0.010	-	<0.0010				
Total Kjeldahl Nitrogen	mg/L		-	0.6	1.32	-	<1	<1	-	-	0.59				
Total Suspended Solids	mg/L		-	6	-	5	1	2	-	<5.0	<5.0				
Alkalinity, Total (as CaCO3)	mg/L		76	76	50.7	60	79	97	54.9	71.8	-				
Bicarbonate (HCO3)	mg/L		93	92	61.8	60	79	97	67	87.6	-				
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	-				
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<2	<2	<2	<0.40	<0.40	-				
Calcium (Ca)-Dissolved	mg/L		-	-	53.5	-	-	-	-	-	78.1				
Magnesium (Mg)-Dissolved	mg/L		-	-	8.19	-	-	-	-	-	13.4				
Potassium (K)-Dissolved	mg/L		-	-	4.11	-	-	-	-	-	6.25				
Sodium (Na)-Dissolved	mg/L		-	-	18.3	-	-	-	-	-	40.4				
Chloride	mg/L		86	118	89.6	175	-	185	68.5	158	162				
Conductivity	umhos/cm		456	609	461	996	932	629	372	671	744				
Fluoride	mg/L	0.12	-	-	-	-	-	-	<0.10	<0.10	<0.10				
Hardness (as CaCO3)	mg/L		179	224	167	278	210	286	133	252	257				
Nitrate-N	mg/L	13	0.1	0.1	0.655	0.31	0.04	0.06	0.102	<0.050	1.1				
Nitrate and Nitrite as N	mg/L		0.1	0.1	0.655	-	-	-	0.102	<0.071	1.1				
Nitrite-N	mg/L	0.197	<0.05	<0.05	<0.050	0.02	-	<0.01	<0.050	<0.050	<0.050				
Sulfate	mg/L		11.4	28.2	25.3	48	-	35	18.3	33.9	38.9				
TDS (Calculated)	mg/L		221	294	232	-	621	419	190	370	378				
Aluminum (Al)-Total	mg/L	0.1	0.02	-	0.014	<0.002	0.015	0.002	0.0239	0.0068	0.0058				
Antimony (Sb)-Total	mg/L		<0.0004	-	<0.00040	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.00020				
Arsenic (As)-Total	mg/L	0.005	0.0042	-	0.00285	0.0046	0.0027	0.0114*	0.00274	0.0046	0.00233				
Barium (Ba)-Total	mg/L		0.042	-	0.0394	0.0611	0.0535	0.0572	0.0342	0.0618	0.059				
Beryllium (Be)-Total	mg/L		<0.001	-	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00020				
Boron (B)-Total	mg/L	1.5	<0.050	-	<0.050	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010				
Cadmium (Cd)-Total	mg/L	Equation	<0.0002	-	<0.000050	<0.00008	<0.00008	0.00021*	<0.000010	<0.000010	0.000013				
Calcium (Ca)-Total	mg/L		-	-	83.4	65.6	85.5	88.5	42.5	79.9	81				
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00010				
Chromium (Cr)-Total	mg/L		<0.005	-	<0.0050	<0.0006	<0.0006	0.006	<0.0010	<0.0010	<0.0010				
Cobalt (Co)-Total	mg/L		<0.002	-	<0.0020	-	-	-	<0.00020	<0.00020	<0.00020				
Copper (Cu)-Total	mg/L	Equation	0.003	-	0.0013	0.0031	0.0021	0.0024	0.0011	0.00204	0.0012				
Iron (Fe)-Total	mg/L	0.3	0.17	-	0.063	<0.01	<0.01	0.80*	0.24	0.27	0.11				
Lead (Pb)-Total	mg/L	Equation	0.0003	-	<0.00010	0.0632	0.0098*	0.0014	0.00018	0.000148	0.000153				
Lithium (Li)-Total	mg/L		<0.02	-	<0.010	<0.1	<0.1	<0.1	0.0085	0.0173	0.0224				
Magnesium (Mg)-Total	mg/L		-	-	7.35	17	11.1	17.8	6.59	12.8	12.4				
Manganese (Mn)-Total	mg/L		0.009	-	0.0058	0.0072	0.0082	0.0102	0.0123	0.00991	0.00328				
Molybdenum (Mo)-Total	mg/L	0.073	<0.005	-	<0.0050	<0.0005	<0.0005	<0.00005	0.00035	0.00053	0.00058				
Nickel (Ni)-Total	mg/L	Equation	0.004	-	0.0027	0.0068	0.0062	0.0129	0.0024	0.0029	<0.0020				
Phosphorus (P)-Total	mg/L		-	-	<0.020	-	-	-	<0.20	<0.20	<0.10				
Potassium (K)-Total	mg/L		-	-	3.61	6.2	5.1	9.3	3.11	5.54	5.82				
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	0.00257	0.00434	0.00425				
Selenium (Se)-Total	mg/L	0.001	0.007	-	0.00084	<0.001	<0.001	<0.001	<0.0010	0.0015	<0.0010				
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	0.222	0.154	0.126				
Silver (Ag)-Total	mg/L	0.0001	<0.004	-	<0.00050	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.00010				
Sodium (Na)-Total	mg/L		-	-	16.7	45.5	25.5	39.6	17.7	36.3	36.4				
Strontium (Sr)-Total	mg/L		-	-	-	0.72	0.63	0.73	0.32	0.666	0.707				
Tellurium (Te)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00020				
Thallium (Tl)-Total	mg/L	0.0008	<0.0001	-	<0.00010	-	-	-	<0.00010	<0.00010	<0.00010				
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00010				
Tin (Sn)-Total	mg/L		<0.05	-	<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00020				
Titanium (Ti)-Total	mg/L		<0.0010	-	<0.0010	0.06	0.03	0.04	0.00079	0.00052	0.00098				
Tungsten (W)-Total	mg/L		<0.0010	-	-	-	-	-	<0.0010	<0.0010	<0.00010				
Uranium (U)-Total	mg/L	0.015	0.0002	-	0.00033	<0.001	<0.001	<0.001	0.00018	0.00033	0.0004				
Vanadium (V)-Total	mg/L		<0.0010	-	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	0.00025	<0.00020				
Zinc (Zn)-Total	mg/L	0.03	0.012	-	<0.0040	<0.001	0.005	0.005	<0.0050	<0.0050	<0.0020				
Zirconium (Zr)-Total	mg/L		-	-	-	-	-	-	<0.00040	<0.00040	<0.00040				
Ortho-Phosphate (PO4-P)	mg/L		-	<0.01	<0.010	0.01	0.07	<0.01	-	-	-				
Turbidity	NTU		-	1.9	-	1.1	0.92	0.69	1.15	1.3	0.68				
pH	pH units	6.5-9.0	8.2	7.8	7.96	7.94	7.59	7.87	8.04	8.21	-				

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE 2012

Waterbody	Units	CCME	A54																	
Year			2007		2008	2010				2011										
Date Sampled			12/08/2007	2007/10/07	15/07/2008	20/06/2010	22/07/2010	26/08/2010	23/09/2010	22/06/2011	12/07/2011	29/08/2011	11/09/2011	09/10/2011	21/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012	
GPS Coordinates			0540135 - 6988794	0540135 - 6988794	0540180 - 6988827	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	540135-6988794	
LAB			-	-	-	-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS					
Field Measurements																				
Water Temperature	oC		11.2	0.3	13.8	10.4	18.1	9.8	4.1	-	-	9.5	4.92	0.4	9.6					
pH	pH units		8.11	8.17	6.94	8	8.93	7.55	7.78	-	-	8.52	7.41	7.15	8.95					
Conductivity	(µS/cm)		-	-	895	-	-	-	-	-	-	0	1202	1187	670					
Laboratory-Measured																				
Ion balance	%		107	96.1	103	92.9	-	-	-	-	-	99.7	-	-	97.8					
Biochemical Oxygen Demand	mg/L		-	2	-	-	-	-	-	-	1.9	-	-	-	<6.0					
Ammonia as N	mg/L	2.33	<0.05	<0.05	1.11	0.739	<0.05	0.25	0.13	0.176	0.121	<0.050	0.264	0.67	0.87					
Mercury (Hg)-Total	mg/L	0.000026	-	0.02	-	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020					
Phosphorus (P)-Total	mg/L	0.004 - 0.01	0.02	0.02	0.009	-	-	-	-	0.012	0.014	0.011	<0.010	<0.010	<0.010					
Phosphorus (P)-Total Reactive	mg/L		-	0.02	<0.004	-	-	-	-	<0.010	<5.0	<0.010	<0.010	<0.010	0.011					
Total Kjeldahl Nitrogen	mg/L		0.7	0.5	2.2	1.58	-	<1	<1	-	-	1.19	1.21	1.59	1.24					
Total Suspended Solids	mg/L		4	3	5	-	8	1	2	-	-	-	-	<5.0	<5.0					
Alkalinity, Total (as CaCO3)	mg/L		49	68	47	49.4	56	56	60	51.4	53.8	48.8	68.1	64.1	58					
Bicarbonate (HCO3)	mg/L		60	83	57	60.2	36	56	60	62.8	65.7	59.5	83	78.1	70					
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	<0.60	<0.60	<0.60	<12					
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<5.0	10	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	<6.8					
Calcium (Ca)-Dissolved	mg/L		-	-	-	49.9	-	-	-	-	-	105	121	141	72.7					
Magnesium (Mg)-Dissolved	mg/L		-	-	-	7.64	-	-	-	-	-	24.7	23	27.2	11.4					
Potassium (K)-Dissolved	mg/L		-	-	-	3.8	-	-	-	-	-	11.2	11.2	11.9	5.33					
Sodium (Na)-Dissolved	mg/L		-	-	-	17.9	-	-	-	-	-	70.6	70.6	82.6	30.8					
Chloride	mg/L		134	151	214	94.6	174	-	235	75.9	209	305	335	394	149					
Conductivity	umhos/cm		618	720	944	498	1005	1079	727	403	815	1070	1150	1380	676					
Fluoride	mg/L	0.12	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.50	-					
Hardness (as CaCO3)	mg/L		236	258	337	156	271	248	329	126	296	307	429	432	228					
Nitrate-N	mg/L	13	<0.1	<0.1	4.9	1.25	1.4	0.82	0.84	0.68	1.18	<0.050	0.809	2.92	1.27					
Nitrate and Nitrite as N	mg/L		<0.1	<0.1	5.1	1.25	-	-	-	0.68	1.18	<0.071	0.809	2.92	1.27					
Nitrite-N	mg/L	0.197	<0.05	<0.05	0.14	<0.050	0.05	-	0.01	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050					
Sulfate	mg/L		19.8	37.2	39.9	29.5	57	-	60	22.7	45.4	52.2	64	84.1	38.6					
TDS (Calculated)	mg/L		291	348	469	239	670	719	485	200	456	599	691	778	532					
Aluminum (Al)-Total	mg/L	0.1	-	-	0.0024	0.044	<0.002	<0.002	<0.002	0.126	0.0063	<0.020	<0.020	<0.020	0.017					
Antimony (Sb)-Total	mg/L		-	-	<0.0002	<0.00040	<0.0001	<0.0001	0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	0.00022					
Arsenic (As)-Total	mg/L	0.005	-	-	0.0009	0.00323	0.0044	<0.0017	0.0035	0.00314	0.00356	0.0025	0.0034	0.0034	0.00335					
Barium (Ba)-Total	mg/L		-	-	0.0618	0.0401	0.049	0.0533	0.0539	0.0341	0.0644	0.0659	0.0899	0.0877	0.055					
Beryllium (Be)-Total	mg/L		-	-	<0.0002	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Boron (B)-Total	mg/L	1.5	-	-	<0.0006	<0.050	<0.01	<0.01	<0.01	<0.010	0.014	<0.030	<0.030	<0.030	0.019					
Cadmium (Cd)-Total	mg/L	Equation	-	-	<0.00005	<0.000050	<0.00008	<0.00008	0.00012	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	0.000031					
Calcium (Ca)-Total	mg/L		-	-	-	50.7	79.3	77.4	95.8	39.9	91.5	106	126	133	72					
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010					
Chromium (Cr)-Total	mg/L		-	-	<0.00006	<0.0050	<0.0006	<0.0006	0.0091	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010					
Cobalt (Co)-Total	mg/L		-	-	<0.0001	<0.0020	-	-	-	0.00027	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Copper (Cu)-Total	mg/L	Equation	-	-	<0.0001	0.0014	0.0021	0.0015	0.002	0.00155	0.00148	<0.0020	<0.0020	<0.0020	0.00126					
Iron (Fe)-Total	mg/L	0.3	-	-	0.022	0.107	<0.01	<0.01	0.71*	0.32	0.2	<0.10	0.32	0.12	0.19					
Lead (Pb)-Total	mg/L	Equation	-	-	0.00006	0.0002	<0.0003	<0.0003	0.0019	0.000533	0.000156	<0.0010	<0.0010	<0.0010	0.000495					
Lithium (Li)-Total	mg/L		-	-	-	<0.010	<0.1	<0.1	<0.1	0.0083	0.0223	0.0263	0.0389	0.0324	0.023					
Magnesium (Mg)-Total	mg/L		-	-	-	7.76	17.7	13.2	22	6.46	16.5	20.8	27.8	24.2	11					
Manganese (Mn)-Total	mg/L		-	-	0.0017	0.0039	0.0046	0.0097	0.0079	0.00878	0.0079	0.0119	0.0248	0.0084	0.00609					
Molybdenum (Mo)-Total	mg/L	0.073	-	-	0.00049	<0.0050	<0.0005	<0.0005	<0.0005	0.00042	0.00064	0.00053	<0.00050	<0.00050	0.0008					
Nickel (Ni)-Total	mg/L	Equation	-	-	0.001	0.0033	0.0048	0.0064	0.0134	0.0033	0.003	<0.0020	0.0054	<0.0020	0.0031					
Phosphorus (P)-Total	mg/L		-	-	-	<0.020	-	-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10					
Potassium (K)-Total	mg/L		-	-	-	3.97	6.2	6.8	11.6	3.16	7.01	9.28	11.8	11	5.22					
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	-	0.00291	0.00569	0.00616	0.0078	0.00745	0.00426					
Selenium (Se)-Total	mg/L	0.001	-	-	<0.0001	0.00102	<0.001	<0.001	<0.001	<0.0010	0.0023	<0.0050	<0.0050	<0.0050	<0.0010					
Silicon (Si)-Total	mg/L		-	-	-	-	-	-</												

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE
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Waterbody	Units	CCME	P-1														
Year			2010				2011				2012						
Date Sampled			20/06/2010	22/07/2010	26/08/2010	23/09/2010	15/06/2011	12/07/2011	29/08/2011	11/09/2011	09/10/2011	21/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012	
GPS Coordinates			539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966	539901-6988966				
Source			-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS				
Field Measurements																	
Water Temperature	oC		11.6	18.2	9	4.2			8.3	3.43	0.3	8.0					
pH	pH units		8	7.5	7.63	7.68			8.75	7.13	7.25	8.3					
Conductivity	(µS/cm)		-	-	-				0	560	620	95					
Laboratory-Measured																	
Ion balance	%		93.1	-	-	-	-	-	101	-	-	101					
Biochemical Oxygen Demand	mg/L		-	-	-	-	-	3.5	-	-	-	<6.0					
Ammonia as N	mg/L	2.33	1.07	0.1	2.9	2	0.052	<0.050	<0.050	<0.050	<0.050	0.011					
Mercury (Hg)-Total	mg/L	0.000026	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020					
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	-	-	-	0.023	0.037	<0.010	<0.010	<0.010	0.021					
Phosphorus (P)-Total Reactive	mg/L		-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010					
Total Kjeldahl Nitrogen	mg/L		2.04	-	3	-	-	-	1.27	0.97	0.68	0.41					
Total Suspended Solids	mg/L		-	4	1	1	-	<5.0	-	-	<5.0	<5.0					
Alkalinity, Total (as CaCO3)	mg/L		51.2	142	136	168	27.5	127	128	133	120	30					
Alkalinity Bicarbonate (HCO3)	mg/L		62.5	142	136	168	33.5	155	156	162	146	37					
Alkalinity Carbonate (CO3)	mg/L		<5.0	-	<2	<2	<0.60	<0.60	<0.60	<0.60	<0.60	<12					
Alkalinity Hydroxide (OH)	mg/L		<5.0	<2	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	<6.8					
Calcium (Ca)-Dissolved	mg/L		33.3	-	-	-	-	-	72.6	83.5	78.2	14.5					
Magnesium (Mg)-Dissolved	mg/L		4.17	-	-	-	-	-	11.1	11.2	11.7	2.00					
Potassium (K)-Dissolved	mg/L		2.46	-	-	-	-	-	4.95	4.54	3.51	1.30					
Sodium (Na)-Dissolved	mg/L		6.5	-	-	-	-	-	17.9	17.6	19.4	2.97					
Chloride	mg/L		39.2	92.1	-	255	6.28	33.1	96.3	107	97.3	9.08					
Conductivity	umhos/cm		290	737	1177	898	85.2	313	525	587	604	108					
Fluoride	mg/L	0.12	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	-					
Hardness (as CaCO3)	mg/L		100	256	343	516	34.4	158	221	255	236	38.5					
Nitrate-N	mg/L	13	1.54	0.02	6.5*	1	0.073	<0.050	<0.050	0.059	0.072	0.218					
Nitrate and Nitrite as N	mg/L		1.54	-	-	-	0.073	<0.071	<0.071	<0.071	0.072	0.218					
Nitrite-N	mg/L	0.197	<0.050	0.03	-	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050					
Sulfate	mg/L		17.6	21	-	68	3.72	4.09	4.86	12.8	41.8	7.70					
TDS (Calculated)	mg/L		141	-	784	599	42.8	184	284	318	319	76.0					
Aluminum (Al)-Total	mg/L	0.1	0.018	<0.002	0.006	<0.002	0.133	0.0149	0.021	0.022	<0.020	0.0600					
Antimony (Sb)-Total	mg/L		<0.00040	<0.0001	0.0001	<0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Arsenic (As)-Total	mg/L	0.005	0.0067	0.0216	0.0023	0.0012	0.00379	0.0125	0.0041	0.0045	0.0027	0.00746					
Barium (Ba)-Total	mg/L		0.0234	0.0554	0.0841	0.126	0.0114	0.0544	0.0531	0.0606	0.0471	0.0129					
Beryllium (Be)-Total	mg/L		<0.0010	<0.0005	<0.0005	0.001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Bismuth (Bi)-Total	mg/L		-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Boron (B)-Total	mg/L	1.5	<0.050	<0.01	<0.01	<0.01	<0.010	<0.010	<0.030	<0.030	<0.030	<0.010					
Cadmium (Cd)-Total	mg/L	Equation	<0.000050	<0.00008	<0.00008	0.00028	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	<0.000010					
Calcium (Ca)-Total	mg/L		32.2	82.7	120	172	11.3	53.8	70.8	82.4	75.4	12.4					
Cesium (Cs)-Total	mg/L		-	-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010					
Chromium (Cr)-Total	mg/L		<0.0050	<0.0006	<0.0006	0.0103*	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010					
Cobalt (Co)-Total	mg/L		<0.0020	-	-	-	0.00042	0.00119	<0.00050	<0.00050	<0.00050	<0.00020					
Copper (Cu)-Total	mg/L	Equation	0.0013	0.0011	0.0022	0.0043*	0.00202	0.00347	0.0023	0.0025	0.002	0.00136					
Iron (Fe)-Total	mg/L	0.3	0.064	<0.01	<0.01	1.3*	0.3	0.73	0.3	0.64	0.25	0.17					
Lead (Pb)-Total	mg/L	Equation	0.00015	0.0003	0.0029	<0.0003	0.000904	0.000344	<0.0010	<0.0010	<0.0010	0.000657					
Lithium (Li)-Total	mg/L		<0.010	<0.1	<0.1	<0.1	<0.0020	<0.0020	0.0046	0.0066	0.0052	<0.0020					
Magnesium (Mg)-Total	mg/L		4.13	12	10.6	21.2	1.51	5.82	10.7	12	11.7	1.85					
Manganese (Mn)-Total	mg/L		0.0246	0.26	0.0065	1.389	0.0435	0.452	0.0159	0.0367	0.0301	0.0169					
Molybdenum (Mo)-Total	mg/L	0.073	<0.0050	<0.0005	<0.0005	<0.0005	0.00031	0.00076	0.00079	0.00113	<0.00050	0.00054					
Nickel (Ni)-Total	mg/L	Equation	0.003	0.007	0.011	0.0386	<0.0020	0.0038	0.003	0.0043	<0.0020	<0.0020					
Phosphorus (P)-Total	mg/L		<0.020	-	-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10					
Potassium (K)-Total	mg/L		2.48	4	6.2	11.1	1.02	2.85	4.99	4.68	3.53	1.22					
Rubidium (Rb)-Total	mg/L		-	-	-	-	0.00125	0.00312	0.00394	0.0035	0.00245	0.00122					
Selenium (Se)-Total	mg/L	0.001	0.00061	<0.001	<0.001	<0.001	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050	<0.0010					
Silicon (Si)-Total	mg/L		-	-	-	-	1.1	0.202	<0.30	0.81	1.24	0.286					
Silver (Ag)-Total	mg/L	0.0001	<0.00050	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010					
Sodium (Na)-Total	mg/L		6.8	22.1	18.9	32.7	2.12	7.78	17.5	19	17.2	3.00					
Strontium (Sr)-Total	mg/L		-	0.44	0.8	0.95	0.0635	0.311	0.49	0.555	0.418	0.0704					
Tellurium (Te)-Total	mg/L		-	-	-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Thallium (Tl)-Total	mg/L	0.0008	<0.00010	-	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010					
Thorium (Th)-Total	mg/L		-	-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010					
Tin (Sn)-Total	mg/L		<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020					
Titanium (Ti)-Total	mg/L		<0.0010	0.05	0.02	0.1	0.00371	0.00055	<0.0010	<0.0010	<0.0010	0.00163					
Tungsten (W)-Total	mg/L		-	-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.00010					
Uranium (U)-Total	mg/L	0.015	0.0003	<0.001	<0.001	0.001	<0.00010	0.00018	0.00054	0.00062	0.00059	<0.00010					
Vanadium (V)-Total	mg/L		<0.0010	<0.0005	<0.0005	<0.0005	<0.00036	0.00022	<0.0020	<0.0020	<0.0020	<0.00020					
Zinc (Zn)-Total	mg/L	0.03	<0.0040	<0.001	0.004	0.015	<0.0050	0.0118	<0.020	<0.020	<0.020	0.0022					
Zirconium (Zr)-Total	mg/L		-	-	-	-	<0.00040	<0.00040	<0.0010	<0.0010	<0.0010	<0.00040					
Turbidity	NTU		-	1.4	0.51	0.24	2.86	2.84	1.92	3.13	1.26	2.4					
Ortho-Phosphate (O-PO4)	mg/L		<0.010	0.01	0.08	<0.01	-	-	-	-	-	-					
Total Oil and Grease	mg/L		-	-	-	-	<1.0	-	-	-	-	-					
pH	pH units	6.5-9.0	7.98	7.54	7.59	7.3	7.73	8.21	8.28	8.28	8.11	7.41					

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Waterbody	Units	CCME	B7-6													
Year			2010			2011			2011			2012				
Date Sampled			20/06/2010	22/07/2010	23/09/2010	23/06/2011	12/07/2011	28/08/2011	11/09/2011	09/10/2011	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012	
GPS Coordinates			-	-	-	-	-	-	-	-	-					
LAB			-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS					
Field Measurments																
Water Temperature	oC		5.4	18.7	6.2			13.3	2.86	0.6	7.56					
pH	pH units		7.5	7.69	7.77			7.43	7.05	7	11.3					
Conductivity	(µS/cm)		-	-	-			0	165	191	141					
Laboratory-Measured																
Ion balance	%		99.8	-	-	-	-	92.2	-	-	101					
Biochemical Oxygen Demand	mg/L		-	-	-	-	1.5	-	-	-	<6.0					
Ammonia as N	mg/L	2.33	<0.050	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	0.015					
Mercury (Hg)-Total	mg/L	0.000026	<0.00010	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020					
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	-	-	0.012	0.013	0.013	0.014	<0.010	<0.010					
Phosphorus (P)-Total Reactive	mg/L		-	-	-	<0.010	-	<0.010	<0.010	<0.010	<0.010					
Total Kjeldahl Nitrogen	mg/L		0.38	-	<1	-	-	0.57	0.51	0.41	0.29					
Total Suspended Solids	mg/L		-	5	1	-	<5.0	-	-	<5.0	<5.0					
Alkalinity, Total (as CaCO3)	mg/L		16.1	39	38	12.7	29.7	37.3	33.3	32.1	-					
Bicarbonate (HCO3)	mg/L		19.6	39	38	15.5	36.2	45.5	40.6	39.2	-					
Carbonate (CO3)	mg/L		<5.0	-	<2	<0.60	<0.60	<0.60	<0.60	<0.60	-					
Hydroxide (OH)	mg/L		<5.0	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	-					
Calcium (Ca)-Dissolved	mg/L		13.2	-	-	-	-	27.1	25.4	26.3	20.4					
Magnesium (Mg)-Dissolved	mg/L		1.22	-	-	-	-	2.39	2.4	2.35	2.04					
Potassium (K)-Dissolved	mg/L		0.71	-	-	-	-	1.48	1.53	1.4	1.31					
Sodium (Na)-Dissolved	mg/L		1.8	-	-	-	-	3.84	3.41	3.78	3.03					
Chloride	mg/L		18	32.9	44.7	8.23	30.9	38.3	34	35.6	26.5					
Conductivity	umhos/cm		103	247	211	55.6	160	196	176	182	152					
Fluoride	mg/L	0.12	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10					
Hardness (as CaCO3)	mg/L		38	78	86	19.8	64.9	83.5	81.2	74.7	59.3					
Nitrate-N	mg/L	13	<0.050	0.03	0.18	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050					
Nitrate and Nitrite as N	mg/L		<0.071	-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071					
Nitrite-N	mg/L	0.197	<0.050	<0.01	<0.01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050					
Sulfate	mg/L		1.36	8	4	0.81	2.62	2.93	3.26	4.48	3.33					
TDS (Calculated)	mg/L		46	-	141	26	80.2	98.4	93.8	92.6	72.5					
Aluminum (Al)-Total	mg/L	0.1	<0.010	<0.002	0.061	0.0248	<0.0050	0.045	<0.020	<0.020	0.0054					
Antimony (Sb)-Total	mg/L		<0.00040	<0.0001	0.0022	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Arsenic (As)-Total	mg/L	0.005	0.00072	0.0019	0.0074*	0.00099	0.00156	0.0021	0.0018	<0.0010	0.00083					
Barium (Ba)-Total	mg/L		0.0154	0.0227	0.022	0.0116	0.0244	0.024	0.0268	0.0194	0.0229					
Beryllium (Be)-Total	mg/L		<0.0010	<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Bismuth (Bi)-Total	mg/L		-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Boron (B)-Total	mg/L	1.5	<0.050	<0.01	<0.01	<0.010	<0.010	<0.030	<0.030	<0.030	<0.010					
Cadmium (Cd)-Total	mg/L	Equation	<0.000050	<0.00008	0.00017	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	0.000019					
Calcium (Ca)-Total	mg/L		14.4	26.6	29.7	6.64	22.6	29	27.9	26	21.3					
Cesium (Cs)-Total	mg/L		-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010					
Chromium (Cr)-Total	mg/L		<0.0050	<0.0006	0.0047	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010					
Cobalt (Co)-Total	mg/L		<0.0020	-	-	0.00031	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Copper (Cu)-Total	mg/L	Equation	<0.0010	0.0007	0.001	0.0008	0.00068	<0.0020	<0.0020	<0.0020	0.00059					
Iron (Fe)-Total	mg/L	0.3	0.09	<0.01	0.26	0.26	0.13	0.26	0.29	<0.10	0.11					
Lead (Pb)-Total	mg/L	Equation	<0.00010	0.0363	<0.0003	<0.000090	<0.000090	<0.0010	<0.0010	<0.0010	<0.000090					
Lithium (Li)-Total	mg/L		<0.010	<0.1	<0.1	0.002	0.0078	0.0187	0.0164	0.0095	0.0077					
Magnesium (Mg)-Total	mg/L		1.34	2.9	3.1	0.794	2.08	2.69	2.8	2.39	2					
Manganese (Mn)-Total	mg/L		0.024	0.0277	0.0048	0.101	0.0143	0.0178	0.0152	0.0038	0.0164					
Molybdenum (Mo)-Total	mg/L	0.073	<0.0050	<0.0005	<0.0005	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Nickel (Ni)-Total	mg/L	Equation	<0.0020	0.0014	0.0042	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020					
Phosphorus (P)-Total	mg/L		<0.020	-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10					
Potassium (K)-Total	mg/L		0.85	0.91	2.2	0.582	1.14	1.71	1.71	1.28	1.1					
Rubidium (Rb)-Total	mg/L		-	-	-	0.00058	0.00132	0.00178	0.00182	0.00127	0.00115					
Selenium (Se)-Total	mg/L	0.001	<0.00040	<0.001	<0.001	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050	<0.0010					
Silicon (Si)-Total	mg/L		-	-	-	0.343	0.371	<0.30	0.38	0.38	0.394					
Silver (Ag)-Total	mg/L	0.0001	<0.00010	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010					
Sodium (Na)-Total	mg/L		2.2	4.5	4.4	1.32	3.02	4.13	4.14	3.58	2.84					
Strontium (Sr)-Total	mg/L		-	0.18	0.22	0.0463	0.183	0.205	0.195	0.172	0.162					
Tellurium (Te)-Total	mg/L		-	-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Thallium (Tl)-Total	mg/L	0.0008	<0.00010	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010					
Thorium (Th)-Total	mg/L		-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010					
Tin (Sn)-Total	mg/L		<0.050	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020					
Titanium (Ti)-Total	mg/L		<0.0010	0.01	0.01	0.00062	<0.00020	0.0016	<0.0010	<0.0010	0.00036					
Tungsten (W)-Total	mg/L		-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	0.00011					
Uranium (U)-Total	mg/L	0.015	<0.00010	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010					
Vanadium (V)-Total	mg/L		<0.0010	<0.0005	<0.0005	<0.00020	<0.00020	<0.0020	<0.0020	<0.0020	<0.00020					
Zinc (Zn)-Total	mg/L	0.03	<0.0040	<0.001	0.01	<0.0050	<0.0050	<0.020	<0.020	<0.020	<0.0020					
Zirconium (Zr)-Total	mg/L		-	-	-	<0.00040	<0.00040	<0.0010	<0.0010	<0.0010	<0.00040					
Ortho-Phosphate (O-PO4)	mg/L		<0.010	0.02	<0.01	-	-	-	-	-	-					
Turbidity	NTU		-	0.61	0.42	0.94	0.81	0.72	1.44	0.58	0.42					
pH	pH units	6.5-9.0	7.4	6.49	7.39	7.2	7.85	7.91	7.72	7.75	-					

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Waterbody	Units	CCME	B2-1											
Year			2010		2011					2012				
Date Sampled			22/07/2010	23/09/2010	23/06/2011	12/07/2011	28/08/2011	11/09/2011	09/10/2011	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
GPS Coordinates			-	-	-	-	-	-	-	-	-	-	-	-
LAB			-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS				
Field Measurments														
Water Temperature	oC		18.9	6.3	-	-	14.2	4.88	1	7.8				
pH	pH units		7.69	7.8	-	-	7.31	7.15	7.35	7.4				
Conductivity	(µS/cm)		-	-	-	-	0	94	107	83				
Laboratory-Measured														
Ion balance	%		-	-	-	-	103	-	-	Low EC				
Biochemical Oxygen Demand	mg/L		-	-	-	1.3	-	-	-	<6.0				
Ammonia as N	mg/L	2.33	0.05	0.09	<0.050	<0.050	<0.050	<0.050	<0.050	<0.010				
Mercury (Hg)-Total	mg/L	0.000026	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	-	0.012	0.012	0.017	0.012	<0.010	<0.010				
Phosphorus (P)-Total Reactive	mg/L		-	-	<0.010	-	<0.010	<0.010	<0.010	<0.010				
Total Kjeldahl Nitrogen	mg/L		-	3	-	-	0.21	0.4	0.37	<0.20				
Total Suspended Solids	mg/L		3	2	-	<5.0	-	-	<5.0	<5.0				
Alkalinity, Total (as CaCO3)	mg/L		41	53	25.5	25.1	33.3	32.7	33.3	-				
Bicarbonate (HCO3)	mg/L		41	53	31.1	30.7	40.7	39.9	40.7	-				
Carbonate (CO3)	mg/L		-	<2	<0.60	<0.60	<0.60	<0.60	<0.60	-				
Hydroxide (OH)	mg/L		<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	-				
Calcium (Ca)-Dissolved	mg/L		-	-	-	-	14.2	13.2	15.2	9.7				
Magnesium (Mg)-Dissolved	mg/L		-	-	-	-	1.54	1.53	1.61	1.12				
Potassium (K)-Dissolved	mg/L		-	-	-	-	1.11	0.91	1.1	0.93				
Sodium (Na)-Dissolved	mg/L		-	-	-	-	4.14	3.82	4.51	2.48				
Chloride	mg/L		8.5	11.2	11.7	7.9	9.92	10.8	11	7.57				
Conductivity	umhos/cm		144	123	97.8	79	105	105	110	75				
Fluoride	mg/L	0.12	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10				
Hardness (as CaCO3)	mg/L		45	50	29.8	30.1	40.6	41.3	43.4	28.8				
Nitrate-N	mg/L	13	0.02	0.45	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Nitrate and Nitrite as N	mg/L		-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071				
Nitrite-N	mg/L	0.197	<0.01	<0.01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Sulfate	mg/L		7	11	3.93	2.39	3.18	3.73	5	2.53				
TDS (Calculated)	mg/L		96	82	49.6	39.9	54	55	57.7	39				
Aluminum (Al)-Total	mg/L	0.1	0.41	0.002	0.0965	0.0073	0.044	0.042	<0.020	0.0061				
Antimony (Sb)-Total	mg/L		<0.0001	<0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Arsenic (As)-Total	mg/L	0.005	0.001	0.0056*	0.00037	0.00099	0.002	0.0014	<0.0010	0.00064				
Barium (Ba)-Total	mg/L		0.0122	0.0104	0.0135	0.0108	0.0136	0.0137	0.0114	0.0107				
Beryllium (Be)-Total	mg/L		<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Boron (B)-Total	mg/L	1.5	<0.01	<0.01	<0.010	<0.010	<0.030	<0.030	<0.030	<0.010				
Cadmium (Cd)-Total	mg/L	Equation	<0.00008	<0.00008	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	0.000161				
Calcium (Ca)-Total	mg/L		14.5	16.3	9.57	10.2	13.8	13.8	14.6	9.08				
Cesium (Cs)-Total	mg/L		-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Chromium (Cr)-Total	mg/L		<0.0006	0.0059*	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010				
Cobalt (Co)-Total	mg/L		-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Copper (Cu)-Total	mg/L	Equation	0.0516	0.0011	0.00112	0.00066	<0.0020	<0.0020	0.0025	0.00094				
Iron (Fe)-Total	mg/L	0.3	<0.01	0.19	0.15	0.11	0.48	0.26	<0.10	<0.10				
Lead (Pb)-Total	mg/L	Equation	<0.0003	<0.0003	<0.000090	<0.000090	<0.0010	<0.0010	<0.0010	0.000185				
Lithium (Li)-Total	mg/L		<0.1	<0.1	<0.0020	<0.0020	0.0051	0.0025	0.0027	<0.0020				
Magnesium (Mg)-Total	mg/L		2.1	2.3	1.42	1.12	1.52	1.65	1.68	1.06				
Manganese (Mn)-Total	mg/L		0.0201	0.0118	0.0111	0.0153	0.0604	0.0219	0.0116	0.0146				
Molybdenum (Mo)-Total	mg/L	0.073	<0.0005	<0.0005	0.0002	0.00021	<0.00050	<0.00050	<0.00050	<0.00020				
Nickel (Ni)-Total	mg/L	Equation	0.0014	0.0024	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020				
Phosphorus (P)-Total	mg/L		-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10				
Potassium (K)-Total	mg/L		0.59	1.7	1.31	0.67	1.1	1.05	0.99	0.841				
Rubidium (Rb)-Total	mg/L		-	-	0.00183	0.00078	0.00126	0.00114	0.00102	0.00082				
Selenium (Se)-Total	mg/L	0.001	<0.001	<0.001	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050	<0.0010				
Silicon (Si)-Total	mg/L		-	-	0.464	0.157	0.4	0.41	0.31	0.239				
Silver (Ag)-Total	mg/L	0.0001	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Sodium (Na)-Total	mg/L		5.6	6.2	6.33	2.49	4.12	4.35	4.4	2.37				
Strontium (Sr)-Total	mg/L		0.06	0.07	0.0444	0.0472	0.0627	0.0614	0.0589	0.0465				
Tellurium (Te)-Total	mg/L		-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Thallium (Tl)-Total	mg/L	0.0008	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010				
Thorium (Th)-Total	mg/L		-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Tin (Sn)-Total	mg/L		<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020				
Titanium (Ti)-Total	mg/L		0.01	<0.01	0.00559	0.00033	0.0013	0.0029	<0.0010	0.00043				
Tungsten (W)-Total	mg/L		-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.00010				
Uranium (U)-Total	mg/L	0.015	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Vanadium (V)-Total	mg/L		<0.0005	<0.0005	0.00037	<0.00020	<0.0020	<0.0020	<0.0020	<0.00020				
Zinc (Zn)-Total	mg/L	0.03	<0.001	0.005	<0.0050	<0.0050	<0.020	<0.020	<0.020	0.006				
Zirconium (Zr)-Total	mg/L		-	-	<0.00040	<0.00040	<0.0010	<0.0010	<0.0010	<0.00040				
Ortho-Phosphate (O-PO4)	mg/L		0.01	<0.01	-	-	-	-	-	-				
Turbidity	NTU		0.59	0.45	1.57	0.67	1.94	0.87	0.72	0.38				
pH	pH units	6.5-9.0	6.97	7.46	7.6	7.79	7.7	7.72	7.74	-				

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE 2012

Waterbody			MELIADINE RIVER													2012			
Year	Units	CCME	2008		2010				2011					25/06/2012	2012				
Date Sampled			21/06/2008	19/07/2008	21/06/2010	22/07/2010	26/08/2010	23/09/2010	23/06/2011	12/07/2011	28/08/2011	11/09/2011	09/10/2011		01/07/2012	01/08/2012	01/09/2012	01/10/2012	
GPS Coordinates			0530714, 6989630	0530712, 6989681	544778.3-6971712	544778.3-6971712	544778.3-6971712	544778.3-6971712	544778.3-6971712	544778.3-6971712	544778.3-6971712	544778.3-6971712	544778.3-6971712		544778.3-6971712				
LAB			-	-	-	-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB		ALS LAB	ALS			
Field Measurements																			
Water Temperature	oC		5.63	12.7	-	-	11.4	5.4	-	-	14.2	3.53	0.8	687					
pH	pH units		-	6.78	-	-	6.9	7.94	-	-	7.77	7.56	7.17	17.68					
Conductivity	(µS/cm)		42	63	-	-	-	-	-	-	0	69	149	62					
Laboratory-Measured																			
Ion balance	%		-	Low EC	Low EC	-	-	-	-	-	-	-	-	Low EC					
Biochemical Oxygen Demand	mg/L		-	-	-	-	-	-	-	<1.0	-	-	-	<6.0					
Ammonia as N	mg/L	2.33	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.010					
Mercury (Hg)-Total	mg/L	0.000026	<0.00002	<0.00002	<0.00010	<0.00001	0.00021	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020					
Phosphorus (P)-Total	mg/L	0.004 - 0.01	0.0025	0.004	-	-	-	-	0.012	0.012	<0.010	<0.010	<0.010	<0.010					
Phosphorus (P)-Total Reactive	mg/L		<0.002	<0.002	-	-	-	-	<0.010	-	<0.010	<0.010	<0.010	<0.010					
Total Kjeldahl Nitrogen	mg/L		0.167	<0.2	0.47	-	<1	1	-	-	<0.20	0.26	0.26	<0.20					
Total Suspended Solids	mg/L		<5.0	<5.0	-	3	<1	3	-	<5.0	-	-	<5.0	<5.0					
Alkalinity, Total (as CaCO3)	mg/L		17.8	16	25.4	39	22	28	25.5	27	22.7	37.9	29.2	-					
Bicarbonate (HCO3)	mg/L		17.8	19	31	39	22	28	31.1	33	27.7	46.2	35.6	-					
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	<0.60	<0.60	<0.60	-					
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<2	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	-					
Calcium (Ca)-Dissolved	mg/L		7.76	5.96	8.96	-	-	-	-	-	9.2	17.3	12.8	7.22					
Magnesium (Mg)-Dissolved	mg/L		1.13	0.853	1.33	-	-	-	-	-	1.46	3.24	2.35	1.05					
Potassium (K)-Dissolved	mg/L		2	0.75	1.13	-	-	-	-	-	1.32	2.02	1.62	0.77					
Sodium (Na)-Dissolved	mg/L		3.9	3.2	5	-	-	-	-	-	7.26	13.7	11.1	4.09					
Chloride	mg/L		6.91	5	9.51	10.7	-	13.8	11.7	18.2	11.9	30.9	22.4	6.89					
Conductivity	umhos/cm		68.8	64.2	88.5	89	152	101	97.8	120	94.3	195	144	68					
Fluoride	mg/L	0.12	0.021	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10					
Hardness (as CaCO3)	mg/L		24	20	27.9	29	21	28	29.8	34.8	26.6	61	42.9	22.4					
Nitrate-N	mg/L	13	<0.005	0.1	<0.050	0.04	0.41	0.14	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050					
Nitrate and Nitrite as N	mg/L		-	0.1	<0.071	-	-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071					
Nitrite-N	mg/L	0.197	<0.01	<0.050	<0.050	<0.01	-	<0.01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050					
Sulfate	mg/L		3.11	2.8	3.44	2	-	2	3.93	4.99	3.57	14.4	8.36	3.06					
TDS (Calculated)	mg/L		-	30	44.6	-	101	67	49.6	64	48.3	108	75.1	37.5					
Aluminum (Al)-Total	mg/L	0.1	<0.0005	0.0019	0.011	<0.002	0.015	<0.002	0.0965	0.0114	0.034	<0.020	<0.020	0.0129					
Antimony (Sb)-Total	mg/L		<0.0005	<0.00003	<0.00040	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Arsenic (As)-Total	mg/L	0.005	<0.0005	<0.00003	<0.00040	0.0009	<0.0005	0.0008	0.00037	0.00032	<0.0010	<0.0010	<0.0010	0.00025					
Barium (Ba)-Total	mg/L		0.02	0.00689	0.0133	0.0087	0.0095	0.009	0.0135	0.0145	0.00885	0.0152	0.0113	0.00955					
Beryllium (Be)-Total	mg/L		<0.0010	<0.0002	<0.0010	<0.0005	<0.0005	0.0016	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Bismuth (Bi)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Boron (B)-Total	mg/L	1.5	<0.1	<0.003	<0.050	<0.01	<0.01	<0.01	<0.010	0.014	<0.030	<0.030	<0.030	<0.010					
Cadmium (Cd)-Total	mg/L	Equation	0.000017	<0.00005	<0.000050	<0.00008	<0.00008	<0.00008	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	0.000016					
Calcium (Ca)-Total	mg/L		-	-	9.72	8.5	6.8	8.6	9.57	10.5	8.48	18.5	13.1	6.7					
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010					
Chromium (Cr)-Total	mg/L		<0.001	<0.00006	<0.0050	<0.0006	<0.0006	0.0021*	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010					
Cobalt (Co)-Total	mg/L		<0.0003	<0.0001	<0.0020	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020					
Copper (Cu)-Total	mg/L	Equation	0.001	0.0007	0.0011	0.0008	0.0011	0.0006	0.00112	0.00119	<0.0020	<0.0020	<0.0020	0.00085					
Iron (Fe)-Total	mg/L	0.3	<0.03	<0.01	0.057	<0.01	<0.01	0.07	0.15	<0.10	<0.10	<0.10	<0.10	<0.10					
Lead (Pb)-Total	mg/L	Equation	<0.0005	<0.00005	<0.00010	<0.0003	0.0006	0.0003	<0.000090	<0.000090	<0.0010	<0.0010	<0.0010	<0.000090					
Lithium (Li)-Total	mg/L		<0.0005	-	<0.010	<0.1	<0.1	<0.1	<0.0020	<0.0020	0.005	<0.0020	0.0024	<0.0020					
Magnesium (Mg)-Total	mg/L		1.12	0.865	1.44	1.8	1	1.8	1.42	2.09	1.32	3.58	2.45	1.01					
Manganese (Mn)-Total	mg/L		0.00204	0.0018	0.0062	<0.0005	0.0021	0.0022	0.0111	0.00317	0.0037	0.0035	0.0028	0.00467					
Molybdenum (Mo)-Total	mg/L	0.073	<0.001	<0.00006	<0.0050	<0.0005	<0.0005	<0.0005	0.0002	0.00033	<0.00050	<0.00050	<0.00050	<0.00020					
Nickel (Ni)-Total	mg/L	Equation	<0.001	<0.0003	<0.0020	<0.0005	0.0006	0.0014	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020					
Phosphorus (P)-Total	mg/L		-	-	<0.020	-	-	-	<0.20	<0.20	<0.50	<0.50	<0.50	<0.10					
Potassium (K)-Total	mg/L		2	0.76	1.28	0.57	0.63	1.6	1.31	1.51	1.15	2.34	1.56	0.862					
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	0.00183	0.00199	0.00157	0.00228	0.00161	0.00115					
Selenium (Se)-Total	mg/L	0.001	<0.001	<0.0001	<0.00040	<0.001	<0.001	<0.001	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050	<0.0010					
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	0.464	0.231	<0.30	0.92	0.48	0.216					
Silver (Ag)-Total	mg/L	0.0001	<0.0002	<0.0001	<0.00010	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010					
Sodium (Na)-Total	mg/L		3.9	3.22	5.7	8.6	4.4	7.8	6.33	10.5	6.41	15.7	9.73	3.63					
Strontium (Sr)-Total	mg/L		-	0.028	-	<0.05	<0.05	<0.05	0.0444	0.055	0.037	0.0942	0.0607	0.0316					
Tellurium (Te)-Total	mg/L		-	-	-	-	-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020					
Thallium (Tl)-Total	mg/L	0.0008	<0.0002	<0.00003	<0.00010	-	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010					
Thorium (Th)-Total	mg/L		-	-	-	-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010					
Tin (Sn)-Total	mg/L		<0.0005	-	<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020					
Titanium (Ti)-Total	mg/L		<0.0010	-	<0.0010	<0.01	<0.01	<0.01	0.00559	0.00055	0.001	<0.0010	<0.0010	0.00067					
Tungsten (W)-Total	mg/L		-	-	-	-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.00010					
Uranium (U)-Total	mg/L	0.015	<0.0002	<0.00005	<0.00010	<0.001	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010					
Vanadium (V)-Total	mg/L		<0.001	0.00011	<0.0010	<0.0005	0.0005	<0.0005	0.00037	<0.00020	<0.0020	<0.0020	<0.0020	<0.00020					
Zinc (Zn)-Total	mg/L	0.03	0.005	0.0008	<0.0040	<0.001	0.006												

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE
2012

Waterbody	Year	Units	CCME	CONTROLE LAKE																	
Date Sampled	2007			2008	2009	2010				2011						2012					
GPS Coordinates	07/07/2007			07/10/2007	08/07/2008	09/04/2009	20/06/2010	22/07/2010	26/08/2010	23/09/2010	23/06/2011	11/07/2011	12/07/2011	28/08/2011	11/09/2011	09/10/2011	25/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
LAB	0535001 - 6986333			0535001 - 6986333	0534632 - 6986546	0534632 - 6986546	535000.8-6986333	535000.8-6986333	535000.8-6986333	535000.8-6986333	535000.8-6986333	0534324, 6986637	535000.8-6986333	535000.8-6986333	535000.8-6986333	535000.8-6986333	535000.8-6986333	535000.8-6986333			
Field Measurements											ALS LAB		ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB				
Water Temperature	oC		16.4	0.2	14.12	1.05	4.1	18.5	11	6.5	-	16.7	-	14.7	6.06	1.9	7.84				
pH	pH units		7.83	7.92	-	6.26	7.4	8.08	7.02	7.8	-	7.7	-	7.69	7.15	7.27	8.7				
Conductivity	(µS/cm)		-	-	64	175	-	-	-	-	-	80	-	0	74	79	62				
Laboratory-Measured																					
Ion balance	%		Low EC	Low EC	Low EC	103	Low EC	-	-	-	-	-	-	-	-	-	Low EC				
Biochemical Oxygen Demand	mg/L		-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	<6.0				
Ammonia as N	mg/L	2.33	-	<0.05	<0.05	0.075	<0.050	0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.010				
Mercury (Hg)-Total	mg/L	0.000026	<0.0002	-	<0.00002	<0.00002	<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.00002	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	-	0.02	0.009	0.0057	-	-	-	-	0.011	0.0043	0.014	<0.010	<0.010	<0.010	<0.010				
Phosphorus (P)-Total Reactive	mg/L		-	0.02	0.003	0.0056	-	-	-	-	<0.010	0.0025	-	<0.010	<0.010	<0.010	<0.010				
Total Kjeldahl Nitrogen	mg/L		-	0.3	0.3	0.73	0.56	<1	<1	-	-	0.25	-	0.4	0.3	0.37	0.22				
Total Suspended Solids	mg/L		-	5	3	3	-	3	2	1	-	<3.0	<5.0	-	-	<5.0	<5.0				
Alkalinity, Total (as CaCO3)	mg/L		21	22	22	62.4	22.3	29	28	32	40	26.3	25.3	27.2	27.4	27.3	-				
Bicarbonate (HCO3)	mg/L		26	27	26	76.2	27.2	29	28	32	48.8	32.1	30.8	33.2	33.4	33.3	-				
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.5	<0.60	<0.60	<0.60	<0.60	-				
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<5.0	<2	<2	<2	<2	<0.40	<0.5	<0.40	<0.40	<0.40	<0.40	-				
Calcium (Ca)-Dissolved	mg/L		-	-	7.02	23.6	7.01	-	-	-	-	8.51	-	10	10.1	9.76	8.85				
Magnesium (Mg)-Dissolved	mg/L		-	-	0.765	2.46	0.89	-	-	-	-	1.13	-	1.12	1.11	1.03	1.12				
Potassium (K)-Dissolved	mg/L		-	-	0.79	2.47	0.91	-	-	-	-	1.11	-	1.25	1.05	1.07	0.87				
Sodium (Na)-Dissolved	mg/L		-	-	3.25	10.5	3	-	-	-	-	4.72	-	4.97	4.67	4.72	4.61				
Chloride	mg/L		6	7	6	18.1	4.93	8	-	9.1	34.9	8.21	8.02	8.5	8.78	8.74	7.78				
Conductivity	umhos/cm		60.3	76.5	68.2	193	59.7	103	161	88	200	81.4	78.2	85.2	85.6	86.3	79				
Fluoride	mg/L	0.12	-	-	-	-	-	-	-	-	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10				
Hardness (as CaCO3)	mg/L		17	24	22	69.1	21.2	27	24	30	75	26.7	27.1	28.8	30.5	29.2	26.7				
Nitrate-N	mg/L	13	0.1	0.1	0.1	0.05	<0.050	0.01	0.05	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Nitrate and Nitrite as N	mg/L		0.1	0.1	0.1	<0.071	<0.071	-	-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071				
Nitrite-N	mg/L	0.197	<0.05	<0.05	<0.05	<0.05	<0.050	<0.01	-	<0.01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Sulfate	mg/L		3.9	3.6	2.2	4.71	0.97	5	-	3	3.56	1.76	1.89	1.96	2.04	2.3	2.48				
TDS (Calculated)	mg/L		35	38	35	99.3	31.1	-	107	59	96.5	41.1	40.8	44.2	45	44.1	41.9				
Aluminum (Al)-Total	mg/L	0.1	0.02	-	0.0036	<0.005	<0.010	0.086	0.018	0.008	0.0081	0.006	0.0069	0.026	<0.020	<0.020	<0.0050				
Antimony (Sb)-Total	mg/L		<0.0004	-	<0.0003	<0.0002	<0.00040	<0.0001	<0.0001	<0.0001	<0.00020	0.0001	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Arsenic (As)-Total	mg/L	0.005	<0.0004	-	0.00039	0.00116	<0.00040	<0.0005	<0.0005	0.0055*	0.00158	0.00059	0.00046	<0.0010	<0.0010	<0.0010	0.00041				
Barium (Ba)-Total	mg/L		0.008	-	0.00691	0.0241	0.0095	0.0074	0.0068	0.0071	0.026	0.00782	0.00881	0.00764	0.00829	0.00788	0.0102				
Beryllium (Be)-Total	mg/L		<0.001	-	<0.0002	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	0.0005	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020				
Bismuth (Bi)-Total	mg/L		-	-	-	0.0001	-	-	-	-	<0.00020	0.00005	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Boron (B)-Total	mg/L	1.5	<0.05	-	<0.004	<0.05	<0.050	<0.01	<0.01	<0.01	<0.010	0.0052	<0.010	<0.030	<0.030	<0.030	<0.010				
Cadmium (Cd)-Total	mg/L	Equation	<0.0002	-	<0.00005	<0.00001	<0.000050	<0.00008	<0.00008	0.00017*	<0.000010	0.00001	<0.000010	<0.00020	<0.00020	<0.00020	<0.000010				
Calcium (Ca)-Total	mg/L		-	-	-	-	6.98	9	-	9.9	24.8	9.28	9.07	10.3	9.83	8.73	-				
Cesium (Cs)-Total	mg/L		-	-	-	0.0216	-	-	-	-	<0.00010	-	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010				
Chromium (Cr)-Total	mg/L		<0.005	-	<0.00006	0.0022	<0.0050	<0.0006	<0.0006	0.0056*	<0.0010	<0.0001	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010				
Cobalt (Co)-Total	mg/L		<0.002	-	<0.0001	<0.0003	<0.0020	-	-	-	<0.00020	<0.0001	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Copper (Cu)-Total	mg/L	Equation	0.002	-	0.0008	0.0017	<0.0010	0.0007	0.0013	0.0011	0.0007	0.00094	0.00082	<0.0020	<0.0020	<0.0020	0.00077				
Iron (Fe)-Total	mg/L	0.3	0.049	-	0.024	-	0.099	<0.01	<0.01	0.11	0.11	0.052	<0.10	<0.10	<0.10	<0.10	<0.10				
Lead (Pb)-Total	mg/L	Equation	<0.0004	-	<0.00005	<0.0005	<0.00010	0.0049	0.0052	<0.0003	<0.000090	<0.00005	<0.000090	<0.0010	<0.0010	<0.0010	0.000118				
Lithium (Li)-Total	mg/L		<0.01	-	-	<0.005	<0.010	<0.1	<0.01	<0.1	0.0076	<0.005	<0.0020	0.006	0.0022	<0.0020	<0.0020				
Magnesium (Mg)-Total	mg/L		-	-	-	-	0.88	1.2	0.93	1.3	3.16	1.17	1.07	1.08	1.18	1.14	1.03				
Manganese (Mn)-Total	mg/L		0.007	-	0.003	0.0042	0.0151	<0.0005	0.0013	0.004	0.0396	0.00396	0.00361	0.0103	0.0029	0.003	0.0102				
Molybdenum (Mo)-Total	mg/L	0.073	<0.005	-	<0.00012	<0.001	<0.0050	<0.0005	<0.0005	<0.0005	<0.00020	0.000191	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020				
Nickel (Ni)-Total	mg/L	Equation	<0.002	-	0.0004	0.0013	<0.0020	0.0005	0.0006	0.0015	<0.0020	0.00057	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020				
Phosphorus (P)-Total	mg/L		-	-	-	-	<0.020	-	-	-	<0.20	-	<0.20	<0.50	<0.50	<0.10	<0.10				
Potassium (K)-Total	mg/L		-	-	-	-	0.9	0.55	0.55	1.6	1.41	1.07	0.956	1.21	1.1	1	0.908				
Rubidium (Rb)-Total	mg/L		-	-	-	-	-	-	-	-	0.00163	-	0.00097	0.00115	0.00126	0.00104	0.00093				
Selenium (Se)-Total	mg/L	0.001	<0.0009	-	<0.0001	<0.001	<0.00040	<0.001	<0.001	<0.001	<0.0010	0.0001	<0.0010	<0.0050	<0.0050	<0.0050	<0.0010				
Silicon (Si)-Total	mg/L		-	-	-	-	-	-	-	-	1.17	0.119	0.077	<0.30	<0.30	<0.30	0.139				
Silver (Ag)-Total	mg/L	0.0001	<0.0004	-	<0.0001	<0.00002	<0.00010	<0.0005	<0.0005	<0.0005	<0.00010	0.00001	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010				
Sodium (Na)-Total	mg/L		-	-	-	-															

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE 2012

Waterbody	Units	CCME	MEL-1																	
			2008	2009		2010				2011							2012			
Date Sampled			16/07/2008	28/04/2009	28/07/2009	20/06/2010	22/07/2010	27/08/2010	24/09/2010	28/06/2011	12/07/2011	31/07/2011	29/08/2011	12/09/2011	11/10/2011	21/06/2012	01/07/2012	01/08/2012	01/09/2012	01/10/2012
GPS Coordinates			0542070 - 6989338	0542070 - 6989338	0542025 - 6989302	541934.2-6989173	541934.2-6989173	541934.2-6989173	541934.2-6989173	541934.2-6989173	541934.2-6989173	0542025, 6989302	541934.2-6989173	541934.2-6989173	541934.2-6989173	541934.2-6989173				
LAB			-	-	-	-	-	-	-	ALS LAB	ALS LAB	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB				
Field Measurements																				
Water Temperature	oC		11.28	0.33	13.92	4.2	15	10.2	5.4	-	-	14.8	11.4	5.3	0.9	3				
pH	pH units		7.17	6.87	6.97	7.1	7.56	6.79	7.71	-	-	7.3	8.54	7.16	7.13	7.82				
Conductivity	(µS/cm)		49	90.6	62	-	-	-	-	-	-	66	0	104	66	40				
Laboratory-Measured																				
Fecal Coliforms	MPN/100mL		-	-	-	-	-	-	-	-	-	-	<3	15	<3	<1				
Total Coliforms	mg/L		-	-	-	-	-	-	-	2	-	-	-	-	-	<1				
E. Coli	mg/L		-	-	-	-	-	-	-	<1	-	-	-	-	-	<1				
Total Oil and Grease	mg/L		<0.5	-	-	-	-	-	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0				
Ion balance	%		Low EC	98.5	Low EC	Low EC	-	-	-	-	-	-	-	-	-	Low EC				
Biochemical Oxygen Demand	mg/L		-	-	-	-	-	<1	-	2	1.3	-	<1.0	6.6	<6.0	<6.0				
Ammonia as N	mg/L	2.33	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.020				
Mercury (Hg)-Total	mg/L	0.000026	<0.00002	<0.00002	<0.00002	<0.00010	<0.00001	0.00023	<0.00001	<0.000050	<0.000050	0.00002	<0.000050	<0.000050	<0.000050	<0.000020				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	0.004	0.0106	0.0047	-	-	-	-	<0.010	<0.010	0.0037	<0.010	<0.010	<0.010	<0.010				
Phosphorus (P)-Total Reactive	mg/L		0.002	0.0082	0.0027	-	-	-	-	-	-	0.0025	<0.010	<0.010	<0.010	<0.010				
Total Kjeldahl Nitrogen	mg/L		0.2	0.36	0.36	<0.20	-	1	1	-	-	<0.20	0.2	0.21	0.24	0.2				
Total Suspended Solids	mg/L		3	4	3	-	3	1	3	-	<5.0	<3.0	-	-	<5.0	9.0				
Alkalinity, Total (as CaCO3)	mg/L		12	26.2	12.7	<5.0	36	19	23	20	17.7	15.1	18.4	22.4	19	14.1				
Bicarbonate (HCO3)	mg/L		14	32	15.5	5.6	36	19	23	24.4	21.7	18.4	22.4	27.3	23.2	17.2				
Carbonate (CO3)	mg/L		<5.0	<5.0	<5.0	<5.0	-	<2	<2	<0.60	<0.60	<0.5	<0.60	<0.60	<0.60	<0.60				
Hydroxide (OH)	mg/L		<5.0	<5.0	<5.0	<5.0	<2	<2	<2	<0.40	<0.40	<0.5	<0.40	<0.40	<0.40	<0.34				
Calcium (Ca)-Dissolved	mg/L		0.501	9.93	5.76	1.58	-	-	-	-	-	6.04	7.51	10.8	8.54	5.6				
Magnesium (Mg)-Dissolved	mg/L		0.817	1.64	0.94	0.23	-	-	-	-	-	1.18	1.12	1.41	1.25	0.797				
Potassium (K)-Dissolved	mg/L		0.75	1.48	0.71	<0.50	-	-	-	-	-	0.913	0.96	0.98	1.02	0.31				
Sodium (Na)-Dissolved	mg/L		3.34	7	3.5	<1.0	-	-	-	-	-	4.28	4.75	5.06	4.93	2.3				
Chloride	mg/L		6	12.6	7.55	1.51	7.5	-	9	7.45	7.87	7.74	8.41	11.7	8.6	5.25				
Conductivity	umhos/cm		56.6	104	60.9	13.9	87	136	75	70.8	67.9	66.8	70	96.5	76.2	52				
Fluoride	mg/L	0.12	-	-	-	-	-	-	-	<0.10	<0.10	-	<0.10	<0.10	<0.10	-				
Hardness (as CaCO3)	mg/L		17	31.5	18.3	4.9	22	17	22	22.6	20.1	20.6	28.5	29.7	22.9	20.1				
Nitrate-N	mg/L	13	0.1	0.05	0.05	<0.050	0.02	0.38	0.14	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Nitrate and Nitrite as N	mg/L		<0.071	<0.071	<0.071	<0.071	-	-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071				
Nitrite-N	mg/L	0.197	<0.050	<0.050	<0.050	<0.050	<0.01	-	<0.01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050				
Sulfate	mg/L		2.8	5.17	2.75	0.83	2	2.77	<1	2.77	3.04	2.9	3.26	11.4	4.17	2.55				
TDS (Calculated)	mg/L		27	53.5	28.8	42	58	90	50	34.8	33.6	32.2	37	53.4	37.7	28				
Aluminum (Al)-Total	mg/L	0.1	0.0028	<0.005	<0.005	<0.010	<0.002	0.02	<0.002	0.0087	0.0063	0.003	0.054	<0.020	<0.020	0.0112				
Antimony (Sb)-Total	mg/L		0.00003	0.00026	0.0005	<0.00040	<0.0001	<0.0001	<0.0001	<0.00020	<0.00020	<0.0001	<0.0010	<0.0010	<0.0010	<0.00020				
Arsenic (As)-Total	mg/L	0.005	0.00026	0.0005	0.0005	<0.00040	0.0016	<0.0005	0.0024	0.00043	0.00037	0.00034	<0.0010	<0.0010	<0.0010	0.00049				
Barium (Ba)-Total	mg/L		0.00594	0.01013	0.02	<0.0030	0.0068	0.0067	0.0056	0.00828	0.00769	0.00708	0.00577	0.0101	0.00711	0.00752				
Beryllium (Be)-Total	mg/L		<0.0002	<0.001	<0.001	<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0005	<0.0010	<0.0010	<0.0010	<0.00020				
Bismuth (Bi)-Total	mg/L		-	<0.001	-	-	-	-	-	<0.00020	<0.00020	<0.00005	<0.00050	<0.00050	<0.00050	<0.00020				
Boron (B)-Total	mg/L	1.5	0.003	0.05	<0.0001	<0.05	<0.01	<0.01	<0.01	<0.010	<0.010	0.0031	<0.030	<0.030	<0.030	0.012				
Cadmium (Cd)-Total	mg/L	Equation	0.00005	<0.00001	<0.00001	<0.000050	<0.00008	<0.00008	0.00016	<0.000010	<0.000010	<0.00001	<0.00020	<0.00020	<0.00020	<0.000010				
Calcium (Ca)-Total	mg/L		-	-	-	1.92	6.6	5.5	7	7.2	6.31	6.8	9.36	9.69	7.21	6.5				
Cesium (Cs)-Total	mg/L		-	-	-	-	-	-	-	<0.00010	<0.00010	-	<0.00050	<0.00050	<0.00050	<0.00010				
Chromium (Cr)-Total	mg/L		0.00006	<0.0001	<0.0001	<0.0050	<0.0006	<0.0006	<0.0006	<0.0010	<0.0010	<0.0001	<0.0020	<0.00050	<0.0020	<0.0010				
Cobalt (Co)-Total	mg/L		<0.001	0.003	0.003	<0.0020	-	-	-	<0.00020	<0.00020	<0.0001	<0.00050	<0.0020	<0.00050	<0.00020				
Copper (Cu)-Total	mg/L	Equation	0.0007	0.0017	0.001	<0.0010	0.0017	0.0009	0.0005	0.00094	0.00086	0.0008	0.0026	<0.00050	<0.0020	0.00081				
Iron (Fe)-Total	mg/L	0.3	0.017	-	0.03	0.027	<0.01	<0.01	0.05	<0.10	<0.10	0.024	0.28	0.11	<0.10	<0.10				
Lead (Pb)-Total	mg/L	Equation	0.00005	0.0005	0.0005	<0.00010	<0.0003	<0.0003	0.0226	<0.000090	<0.000090	<0.00005	<0.0010	<0.0010	<0.0010	<0.000090				

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE
2012

Waterbody	Units	CCME	2BB-MEL0914	MEL-3				
Year				2010				
Date Sampled				20/06/2010				
GPS Coordinates				-				
LAB				-				
Field Measurments								
Water Temperature	oC		10	9.8				
pH	pH units			7.1				
Conductivity	(µS/cm)			-				
Laboratory-Measured								
Fecal Coliforms	MPN/100mL		200	-				
Total Coliforms	mg/L			-				
E. Coli	mg/L			-				
Total Oil and Grease	mg/L			<1.0				
Ion balance	%			98.1				
Biochemical Oxygen Demand	mg/L		15	-				
Ammonia as N	mg/L	2.33		-				
Mercury (Hg)-Total	mg/L	0.000026		<0.00010				
Phosphorus (P)-Total	mg/L	0.004 - 0.01	1.000	-				
Phosphorus (P)-Total Reactive	mg/L			-				
Total Kjeldahl Nitrogen	mg/L			-				
Total Suspended Solids	mg/L		15	-				
Alkalinity, Total (as CaCO3)	mg/L			52				
Bicarbonate (HCO3)	mg/L			63.5				
Carbonate (CO3)	mg/L			<5.0				
Hydroxide (OH)	mg/L			<5.0				
Calcium (Ca)-Dissolved	mg/L			15.7				
Magnesium (Mg)-Dissolved	mg/L			1.63				
Potassium (K)-Dissolved	mg/L			2.69				
Sodium (Na)-Dissolved	mg/L			21.5				
Chloride	mg/L			21.4				
Conductivity	umhos/cm			213				
Fluoride	mg/L	0.12		-				
Hardness (as CaCO3)	mg/L			45.9				
Nitrate-N	mg/L	13		<0.050				
Nitrate and Nitrite as N	mg/L			<0.071				
Nitrite-N	mg/L	0.197		<0.050				
Sulfate	mg/L			15.1				
TDS (Calculated)	mg/L			109				
Aluminum (Al)-Total	mg/L	0.1		0.034				
Antimony (Sb)-Total	mg/L			0.00086				
Arsenic (As)-Total	mg/L	0.005		0.00423				
Barium (Ba)-Total	mg/L			0.0112				
Beryllium (Be)-Total	mg/L			<0.0010				
Bismuth (Bi)-Total	mg/L			-				
Boron (B)-Total	mg/L	1.5		<0.050				
Cadmium (Cd)-Total	mg/L	Equation		<0.000050				
Calcium (Ca)-Total	mg/L			15.3				
Cesium (Cs)-Total	mg/L			-				
Chromium (Cr)-Total	mg/L			<0.0050				
Cobalt (Co)-Total	mg/L			<0.0020				
Copper (Cu)-Total	mg/L	Equation		0.0068				
Iron (Fe)-Total	mg/L	0.3		0.179				
Lead (Pb)-Total	mg/L	Equation		0.00288				
Lithium (Li)-Total	mg/L			<0.010				
Magnesium (Mg)-Total	mg/L			1.61				
Manganese (Mn)-Total	mg/L			0.0762				
Molybdenum (Mo)-Total	mg/L	0.073		<0.0050				
Nickel (Ni)-Total	mg/L	Equation		0.0025				
Phosphorus (P)-Total	mg/L			-				
Potassium (K)-Total	mg/L			2.69				
Rubidium (Rb)-Total	mg/L			-				
Selenium (Se)-Total	mg/L	0.001		<0.00040				
Silicon (Si)-Total	mg/L			-				
Silver (Ag)-Total	mg/L	0.0001		<0.00010				
Sodium (Na)-Total	mg/L			20.9				
Strontium (Sr)-Total	mg/L			-				
Tellurium (Te)-Total	mg/L			-				
Thallium (Tl)-Total	mg/L	0.0008		<0.00010				
Thorium (Th)-Total	mg/L			-				
Tin (Sn)-Total	mg/L			<0.050				
Titanium (Ti)-Total	mg/L			0.0026				
Tungsten (W)-Total	mg/L			-				
Uranium (U)-Total	mg/L	0.015		<0.00010				
Vanadium (V)-Total	mg/L			<0.0010				
Zinc (Zn)-Total	mg/L	0.03		0.0088				
Zirconium (Zr)-Total	mg/L			-				
Ortho-phosphate (PO4-P)	mg/L			0.414				
Turbidity	NTU			-				
pH	pH units	6.5-9.0		7.37				

MELIADINE GOLD PROJECT

MONTHLY ENVIRONMENTAL REPORT JUNE 2012

Waterbody	Units	CCME	2BB-MEL0914	MEL-4											
Year				2010				2011				2012			
Date Sampled				20/06/2010	22/07/2010	27/08/2010	24/09/2010	28/06/2011	12/07/2011	29/08/2011	12/09/2011	11/10/2011	21/06/2012	01/07/2012	01/08/2012
GPS Coordinates				542092-6989012	542092-6989012	542092-6989012	542092-6989012	542092-6989012	542092-6989012	542092-6989012	542092-6989012	542092-6989012	542092-6989012	01/09/2012	01/10/2012
LAB				-	-	-	-	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS LAB	ALS		
Field Measurments															
Water Temperature	oC		10	4	15	11.1	6.5	-	-	11.4	6.32	0.8	1.3		
pH	pH units			6.8	7.79	6.9	7.45	-	-	9.32	7.58	7.2	8.2		
Conductivity	(µS/cm)			-	-	-	-	-	-	0	65	66	14		
Laboratory-Measured															
Fecal Coliforms	MPN/100mL		200	-	35	-	-	-	<1	210	150	93	OVERGROWN		
Total Coliforms	mg/L			-	-	-	-	-	-	-	-	-	OVERGROWN		
E. Coli	mg/L			-	-	-	-	-	-	-	-	-	3		
Total Oil and Grease	mg/L			-	-	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Ion balance	%			Low EC	-	-	-	-	-	-	-	-	Low EC		
Biochemical Oxygen Demand	mg/L		15	-	-	<1	5	2.7	1.3	1.9	7.2	-	<6.0		
Ammonia as N	mg/L	2.33		<0.050	<0.05	<0.05	<0.05	1.13	<0.050	<0.050	0.055	<0.050	0.136		
Mercury (Hg)-Total	mg/L	0.000026		<0.00010	<0.00001	<0.00001	<0.00001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000020		
Phosphorus (P)-Total	mg/L	0.004 - 0.01	1.000	-	-	-	-	0.618	0.012	0.018	<0.010	0.034	0.082		
Phosphorus (P)-Total Reactive	mg/L			-	-	-	-	-	-	<0.010	<0.010	<0.010	0.060		
Total Kjeldahl Nitrogen	mg/L			<0.20	-	<1	1	-	-	0.31	0.23	0.33	0.25		
Total Suspended Solids	mg/L		15	-	2	1	4	-	<5.0	-	-	12	<5.0		
Alkalinity, Total (as CaCO3)	mg/L			<5.0	38	21	23	35.7	17.7	23	19.7	19.5	4.9		
Bicarbonate (HCO3)	mg/L			<5.0	38	21	23	43.6	21.6	27	24.1	23.8	6		
Carbonate (CO3)	mg/L			<5.0	-	<2	<2	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60		
Hydroxide (OH)	mg/L			<5.0	<2	<2	<2	<0.40	<0.40	<0.40	<0.40	<0.40	<0.34		
Calcium (Ca)-Dissolved	mg/L			1.16	-	-	-	-	-	8.08	7.45	7.54	1.19		
Magnesium (Mg)-Dissolved	mg/L			0.12	-	-	-	-	-	1.22	1.15	1.11	0.163		
Potassium (K)-Dissolved	mg/L			<0.50	-	-	-	-	-	0.9	0.86	0.89	<0.10		
Sodium (Na)-Dissolved	mg/L			<1.0	-	-	-	-	-	6.05	4.51	4.61	0.725		
Chloride	mg/L			0.96	9.4	-	9.5	11.8	7.9	10.3	8.61	8.71	1.19		
Conductivity	umhos/cm			9.09	97	142	74	124	67.5	84.8	75.9	75.4	<20		
Fluoride	mg/L	0.12		-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	-		
Hardness (as CaCO3)	mg/L			3.4	26	17	20	25	19	33.9	24.7	22.3	3.6		
Nitrate-N	mg/L	13		<0.050	0.02	0.03	0.02	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
Nitrate and Nitrite as N	mg/L			<0.071	-	-	-	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071		
Nitrite-N	mg/L	0.197		<0.050	<0.01	-	<0.01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
Sulfate	mg/L			0.7	3	-	4	4.92	3.09	3.37	3.47	3.55	0.63		
TDS (Calculated)	mg/L			2.9	64	95	49	55.6	33.1	43.7	39.7	37.2	<5.0		
Aluminum (Al)-Total	mg/L	0.1		<0.010	<0.002	0.022	<0.002	0.0143	0.0059	0.024	<0.020	0.081	0.0114		
Antimony (Sb)-Total	mg/L			<0.00040	<0.0001	<0.0001	0.0007	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020		
Arsenic (As)-Total	mg/L	0.005		<0.00040	<0.0005	<0.0005	<0.0005	0.00069	0.00035	<0.0010	0.0018	<0.0010	0.00065		
Barium (Ba)-Total	mg/L			<0.0030	0.0065	0.0064	0.0058	0.00874	0.00735	0.0103	0.0081	0.00758	0.00176		
Beryllium (Be)-Total	mg/L			<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020		
Bismuth (Bi)-Total	mg/L			-	-	-	-	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020		
Boron (B)-Total	mg/L	1.5		<0.050	<0.01	<0.01	<0.01	<0.010	<0.010	0.041	<0.030	<0.030	<0.010		
Cadmium (Cd)-Total	mg/L	Equation		<0.000050	<0.00008	<0.00008	0.00017*	<0.000010	<0.000010	<0.00020	<0.00020	<0.00020	<0.000010		
Calcium (Ca)-Total	mg/L			1.33	7.6	5.4	6.4	7.92	5.97	11.2	7.81	7.02	1.61		
Cesium (Cs)-Total	mg/L			-	-	-	-	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010		
Chromium (Cr)-Total	mg/L			<0.0050	<0.0006	<0.0006	0.0030*	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010		
Cobalt (Co)-Total	mg/L			<0.0020	-	-	-	0.00024	<0.00020	0.00055	<0.00050	<0.00050	0.00023		
Copper (Cu)-Total	mg/L	Equation		<0.0010	0.0007	0.0012	0.0005	0.00139	0.0008	<0.0020	<0.0020	<0.0020	0.00043		
Iron (Fe)-Total	mg/L	0.3		<0.010	<0.01	<0.01	0.03	<0.10	<0.10	<0.10	<0.10	0.15	<0.10		
Lead (Pb)-Total	mg/L	Equation		<0.00010	<0.0003	0.0388*	0.001	0.000147	<0.000090	<0.0010	<0.0010	<0.0010	0.000138		
Lithium (Li)-Total	mg/L			<0.010	<0.1	<0.1	<0.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020		
Magnesium (Mg)-Total	mg/L			0.13	1.6	0.85	1.2	1.26	1.01	1.45	1.27	1.15	0.229		
Manganese (Mn)-Total	mg/L			0.003	0.0021	0.0027	0.0028	0.0148	0.01	0.0319	0.0057	0.0092	0.0212		
Molybdenum (Mo)-Total	mg/L	0.073		<0.0050	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020		
Nickel (Ni)-Total	mg/L	Equation		<0.0020	0.0012	0.003	0.001	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020		
Phosphorus (P)-Total	mg/L			<0.020	-	-	-	0.4	<0.20	<0.50	<0.50	<0.50	0.12		
Potassium (K)-Total	mg/L			<0.10	0.33	0.43	1	1.89	0.706	0.93	0.99	0.8	0.413		
Rubidium (Rb)-Total	mg/L			-	-	-	-	0.00208	0.00117	0.00133	0.00123	0.00124	0.00037		
Selenium (Se)-Total	mg/L	0.001		<0.00040	<0.001	<0.001	<0.001	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050	<0.0010		
Silicon (Si)-Total	mg/L			-	-	-	-	0.333	0.232	0.47	<0.30	0.33	0.093		
Silver (Ag)-Total	mg/L	0.0001		<0.00010	<0.0005	<0.0005	<0.0005	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010		
Sodium (Na)-Total	mg/L			1.1	7.4	3.7	5	6.32	3.83	8.51	5.69	4.24	1.06		
Strontium (Sr)-Total	mg/L			-	<0.05	<0.05	<0.05	0.0395	0.0289	0.0552	0.0463	0.0319	0.00717		
Tellurium (Te)-Total	mg/L			-	-	-	-	<0.00020	<0.00020	<0.0010	<0.0010	<0.0010	<0.00020		
Thallium (Tl)-Total	mg/L	0.0008		<0.00010	-	-	-	<0.00010	<0.00010	<0.0050	<0.0050	<0.0050	<0.00010		
Thorium (Th)-Total	mg/L			-	-	-	-	<0.00010	<0.00010	<0.0010	<0.0010	<0.0010	<0.00010		
Tin (Sn)-Total	mg/L			<0.050	<0.001	<0.001	<0.001	<0.00020	<0.00020	<0.00060	<0.00060	<0.00060	<0.00020		
Titanium (Ti)-Total	mg/L			<0.0010	<0.01	<0.01	<0.01	0.00031	0.00031	<0.0010	<0.0010	0.0056	<0.00020		
Tungsten (W)-Total	mg/L			-	-	-	-	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.00010		
Uranium (U)-Total	mg/L	0.015		<0.00010	<0.001	<0.001	<0.001	<0.00010	<0.00010	<0.00050	<0.00050	<0.00050	<0.00010		
Vanadium (V)-Total	mg/L			<0.0010	<0.0005	<0.0005	<0.0005	<0.00020	<0.00020	<0.0020	<0.0020	<0.0020	<0.00020		
Zinc (Zn)-Total	mg/L	0.03		<0.0040	<0.001	<0.001	<0.001	<0.0050	<0.0050	<0.020	<0.020	<0.020	0.0028		
Zirconium (Zr)-Total	mg/L			-	-	-	-	<0.00040	<0.00040	<0.0010	<0.0010	<0.0010	<0.00040		
Ortho-Phosphate (O-PO4)	mg/L			<0.010	0.02	0.05	<0.01	-	-	-	-	-	-		
Oil & Grease	mg/L			-	0.02	-	-	-	-	-	-	-	<0.10		
Turbidity	NTU			-	0.3	0.31	0.31	1.05	0.55	0.53	0.36	3.04			
pH	pH units	6.5-9.1		6.75	6.7	7.45	7.05	7.72	7.59	8.33	7.61	7.59	6.72		