



## TECHNICAL MEMORANDUM

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**To: José Perron** **February 15, 2012**  
**Cc: Patricia Randell**  
**From: Skya Fawcett and Robert Goldblatt** **Project #: J988-2**  
**Subject: Field Report – Groundwater & Surface Water Sampling- 25 Sep. –  
1 Oct., 2011**

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### **1. Overview**

Lorax personnel carried out groundwater sampling at the Mount Nansen Mine site between September 25<sup>th</sup> and October 1<sup>st</sup>, 2011. Lorax also accompanied EDI Environmental Dynamics Inc. (EDI) to two of their surface water sample sites and collected duplicate samples at these sites that will be used in an inter-laboratory comparison. A duplicate, field blank, and travel blank were also collected during surface water quality sample collections. While five surface water samples were to be collected from EDI's surface water quality and field bin sampling program three duplicates were collected from only two surface water quality stations. Duplicate field bin samples were not collected due to freezing of the tubing in the field bins.

The groundwater quality data generated from this sampling event will be used in the characterization of groundwater as well as the development of contaminant source terms. Contaminant source terms will be used in the assessment of effects on the receiving environment.

A total of 30 wells and one groundwater seep were targeted for groundwater sample collection and water level measurements, as summarized in Table 1. Of the 30 well locations, eight locations were not sampled for the following reasons, as summarized in Table 1.

- Tailings area monitoring wells MW09-05 and -06 were flooded and prevented safe access due to unstable (soft) ground (Photo 1);
- Monitoring well MW09-20 (seepage collection dam) was dry;
- Monitoring wells MW09-15 (near the east waste rock pile) and GLL07-01 (north of open pit) were frozen;
- Monitoring well MW09-13 (near east waste rock pile) was clogged;
- Monitoring well GLL07-02 (east of pit near Pony Creek adit) was dry;
- Monitoring well GLL07-03 (central pit hanging wall) was flooded and inaccessible.

**Table 1:  
Groundwater monitoring well (MW) and mini-piezometer (MP) locations  
and sample methods.**

Well ID	General Location	Coordinates (UTM NAD83 zone 8V)		Sample method
		Easting	Northing	
MW09-16	Mill	387,992	6,881,096	Peri pump
MW09-17	Mill	388,078	6,880,970	Peri pump
MW09-18	Mill	388,056	6,880,984	Peri pump
MW09-19	Mill	388,053	6,881,017	Peri pump
MW09-11	Sands uphill of tailings	389,458	6,880,632	Peri pump
MW09-01	Tailings Impoundment - SE	389,395	6,880,559	Peri pump
MW09-02	Tailings Impoundment – SE	389,396	6,880,560	Peri pump
MW09-03	Tailings Impoundment – SE	389,421	6,880,558	Peri pump
MW09-04	Tailings Impoundment – SE	389,421	6,880,559	Peri pump
MW09-05	Tailings Impoundment - NE	389,413	6,880,656	Inaccessible
MW09-06	Tailings Impoundment – NE	389,458	6,880,634	Inaccessible
MW09-07	Tailings Impoundment – NW	389,324	6,880,701	Peri pump
MP09-09	Tailings Impoundment - W	389,240	6,880,682	Peri pump
MP09-10	Tailings Impoundment – W	389,240	6,880,683	Peri pump
MP09-11	Tailings Impoundment – W	389,221	6,880,615	Peri pump
MP09-12	Tailings Impoundment – W	389,221	6,880,614	Peri pump
MW09-20	Seepage Dam Embankment	389,593	6,880,585	Dry
MW09-21	Tailings Dam Embankment	389,537	6,880,575	Peri pump
MW09-22	Tailings Dam Embankment	389,498	6,880,549	Bladder pump
MW09-23	Tailings Dam Crest	389,461	6,880,553	Bladder pump
MW09-24	Tailings Dam Embankment	389,591	6,881,550	Peri pump
MP09-04	Adjacent to Seepage Pond	389,592	6,880,584	Peri pump
MP09-05	Adjacent to Seepage Pond	389,549	6,880,590	Peri pump
MW09-08	Downstream of Seepage Pond	389,591	6,880,577	Peri pump
SDam Seep	Seep below seepage pond dam	389,627	6,880,564	Peri pump
GLL07-01	North of open pit	NA	NA4	Frozen
GLL07-02	East of pit at Pony Creek Adit	NA	NA	Dry
GLL-07-03	Central pit hanging wall	NA	NA	Inaccessible
MW09-13	East waste rock pile near pit	389,006	6,881,664	Clogged
MW09-14	East waste rock pile near pit	389,008	6,881,663	Peri pump
MW09-15	East waste rock pile near pit	388,921	6,881,724	Frozen

- \*Note that MW09-09, -10, and -12 do not exist.

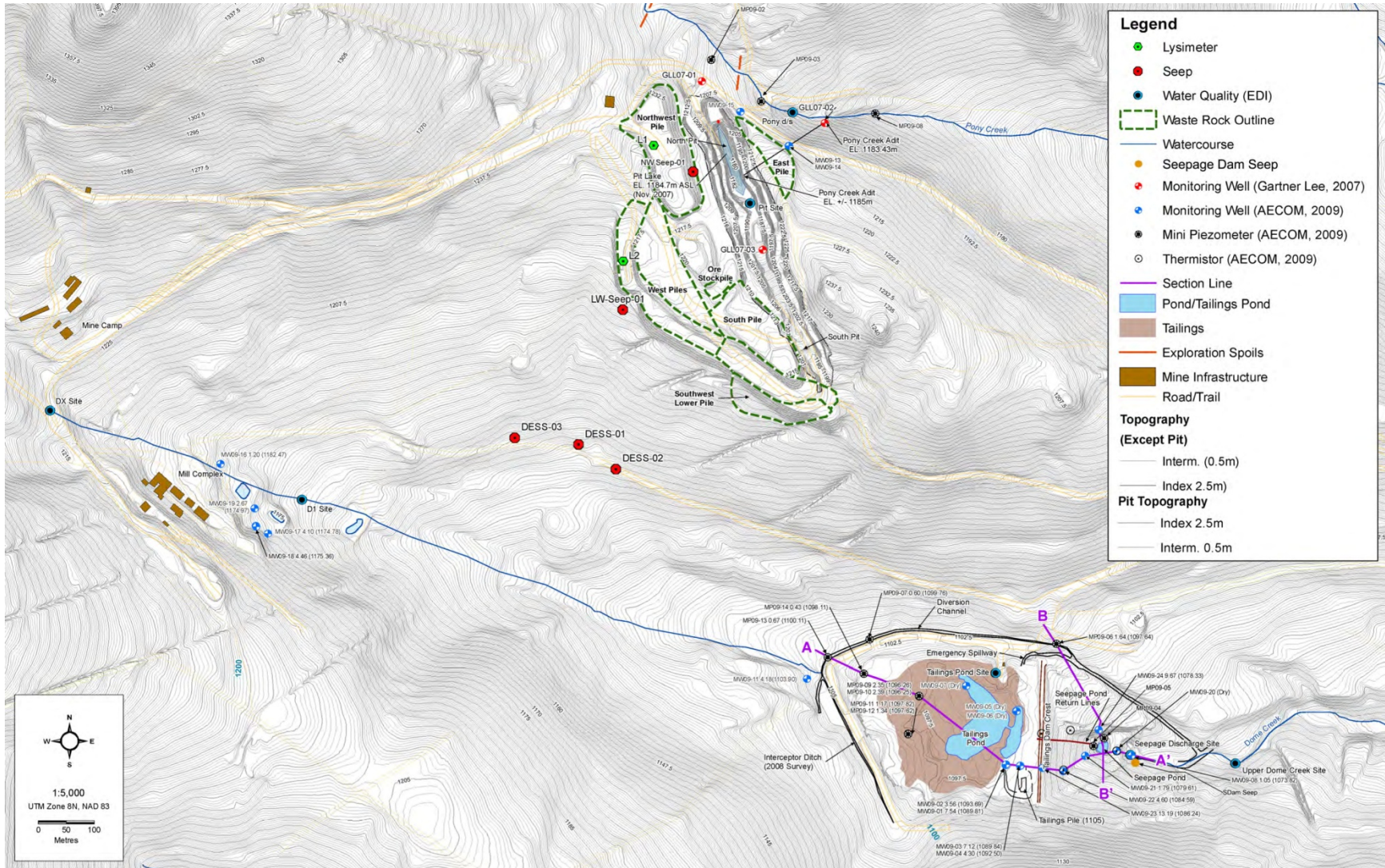
The groundwater sampling program included samples from 16 monitoring wells (MW), 6 mini-piezometers (MP) (Figure 1, Table 1), 2 travel blanks, 2 field blanks, and 2 duplicates for a total of 28 samples. Groundwater samples were collected from 17 monitoring wells (MW) and mini-piezometers (MP) in and around the tailings impoundment (Photo 2), 4 monitoring wells in the mill area and 1 near the pit (Figure 1). Water levels were relatively high during the sampling event, which permitted the sampling of 3 wells (MW09-07, -11, & -22) that were dry during the July and September 2010 sampling events. Well MW09-14 (near the east waste rock pile) was frozen below its screened interval but flowing at the screened interval, and therefore was sampled. As well, a groundwater seepage sample was collected from below the seepage pond dam, at the southern end, just before it joins Dome Creek (Figure 1, Photo 3).

In addition to the groundwater sampling program, surface water quality samples were collected from the tailings pond and from the seepage pond outfall. These surface water quality samples were collected at the same time that EDI personnel collected samples from these locations. The Lorax samples were analyzed at ALS Environmental Laboratory in Burnaby, BC. The EDI samples were analyzed by Exova Laboratories in Surrey, BC. The results are shown in Appendix A and will be used for a future inter-laboratory comparison for QA/QC purposes. A cursory analysis of the data suggests that the data from both labs are consistent, with the exception of ammonia, nitrate, thiocyanate and WAD cyanide. A quantitative quality assurance analysis would require analysis of the relative percent differences (RPDs) of the duplicates followed by a comparison of those RPDs to the lab data quality objectives (*i.e.* 20% in the case of ALS).

Quality control samples were collected as part of the groundwater and surface water sampling procedures. Groundwater QA/QC sampling included 2 duplicate samples, 2 field blanks, and 1 travel blank. Surface water QA/QC sampling included 1 duplicate sample, 1 field blank, and 1 travel blank. All results are included in Appendix A.

A total of 33 samples were submitted for analysis to ALS as part of this program. This included 23 groundwater samples (Table 1), six groundwater QA/QC samples, two surface water samples, and two surface water QA/QC samples.

The original proposal estimated that a total 45 water samples would be submitted for analysis. Twelve fewer samples were collected for reasons stated previously. This reduction in sample analysis represents a budget reduction of approximately \$4,620 (\$385 per sample).



Map acquired from Appendix E – Hydrogeology Characterization (AECOM) of the Options for Closure Report (2011)

**Figure 1: Site map showing monitoring well (MW), mini-piezometer (MP), and the seepage dam seep locations.**

## 2. Methods

### 2.1 Groundwater Sampling

The groundwater wells sampled are listed in Table 1. The wells were installed in the summer of 2009 in support of a site-wide hydrogeological/geochemical investigation. At each well the water level below casing and the total depth below casing were measured with a Herron water level meter. The wells were sampled using either a Geotech peristaltic pump (Figure 2) or a QED portable bladder pump operated with an MP10 controller and MP3020 electric compressor (Table 1). The bladder pump has more lift capability than the peristaltic pump and was used when the water level was more than 7 m below the top of the casing. The well water level was monitored while pumping and the flow rate adjusted so that a constant water level was maintained. Water was pumped to a flow through cell with a YSI 600XL multi-parameter probe. The wells were purged until water quality parameters (specific conductance, pH, and dissolved oxygen) had stabilized before water quality samples were collected. Mini-piezometers in the tailings on the western side of the tailings pond (MP09-09, -10 & -12) had very slow recharge rates, therefore these wells were slowly purged until dry, then allowed to recharge overnight before collecting water quality samples the next morning.

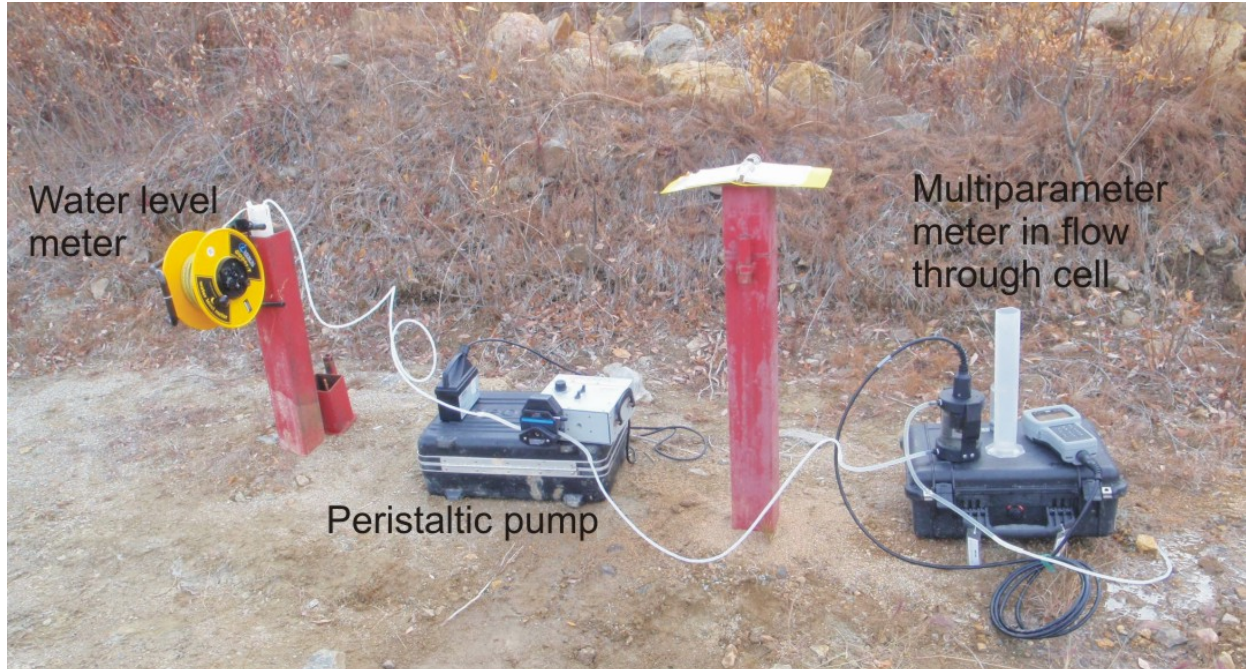


Figure 2: Setup of peristaltic pump at monitoring well MW09-14.

For each water quality sample listed in Table 2, the containers were filled and preserved in the field. All samples were filtered through a 0.45 µm Waterra inline groundwater filter except for the total metals container. Care was taken to minimize exposure of sample water to air, in order to minimize chemical speciation changes to redox sensitive parameters such as sulfide.

Field duplicate samples were collected at MW09-02 and MW09-24 by filling a second set of containers immediately after the first set had been filled. Field blanks were collected at sites MW09-07 (Sept. 28<sup>th</sup>) and MW09-14 (Sept. 29<sup>th</sup>) by using the peristaltic pump to draw deionized water supplied by ALS Environmental from a 4-L jug and fill the various sample containers. Field blanks were filtered and preserved in the same manner as groundwater samples. Samples were kept cool at all times.

All samples were shipped by Air North Cargo to the ALS laboratory on October 1<sup>st</sup>. Results of laboratory analyses are presented in ALS file #L1066527 included in Appendix A. Results of field measurements are listed in Table 3.

**Table 2:  
 Containers filled for each water quality sample and preservative.**

Parameter	Container	Filtered	Preservative
Physical + nutrients + anions	1-L plastic	yes	none
Ammonia	250 ml amber glass	yes	H <sub>2</sub> SO <sub>4</sub>
DOC	125 ml amber glass	yes	HCl
Sulfide	50 ml plastic	yes	NaOH + Zn Acetate
Cyanide	500 ml plastic	yes	NaOH
Total metals	125 ml plastic	no	HNO <sub>3</sub>
Dissolved metals	125 ml plastic	yes	HNO <sub>3</sub>

**Table 3:  
Groundwater well field parameter measurements.**

Well ID	Water Level (mbgs)	Temp (°C)	pH	SC <sup>1</sup> (mS/cm)	DO <sup>2</sup> (mg/L)
MW09-16	0.51	3.64	6.62	1.241	1.71
MW09-17	3.79	0.05	6.67	1.562	1.07
MW09-18	3.63	0.03	6.41	2.82	1.3
MW09-19	1.755	2.05	5.73	2.439	12.15
MW09-11	4.13	1.69	6.99	0.771	1.43
MW09-01	3.22	1.17	7.13	0.1726	0.27
MW09-02	1.09	2.81	6.94	1.724	1.81
MW09-03	3.22	1.31	8.14	2.783	0.94
MW09-04	1.71	1.56	8.79	1.488	0.41
MW09-05	Inaccessible				
MW09-06	Inaccessible				
MW09-07	1.73	3.82	6.5	1.393	0.47
MP09-09	1.98	1.72	8.29	0.941	0.47
MP09-10	1.79	3.46	8.79	0.624	0.94
MP09-11	0.92	1.92	7.4	1.24	0.55
MP09-12	0.92	3.69	7.3	0.71	1.12
MW09-20	Dry				
MW09-21	1.17	2.46	6.27	0.618	0.93
MW09-22	3.37	2.84	6.31	0.523	3.85
MW09-23	13.4	1.32	6.63	0.993	0.77
MW09-24	9.36	0.62	7.84	0.409	13.38 <sup>A</sup>
MP09-04	2.07	2.13	6.7	1.103	2.46
MP09-05	1.34	1.57	6.67	2.544	0.42
MW09-08	0.20	2.77	6.54	0.114	0.74
SDam Seep		0.95	6.32	0.058	2.4
MW09-13	Clogged				
MW09-14	1.77	1.22	6.64	1.147	3.48
MW09-15	Frozen				

1. Specific conductance. 2. Dissolved oxygen. A. DO reading likely erroneous.

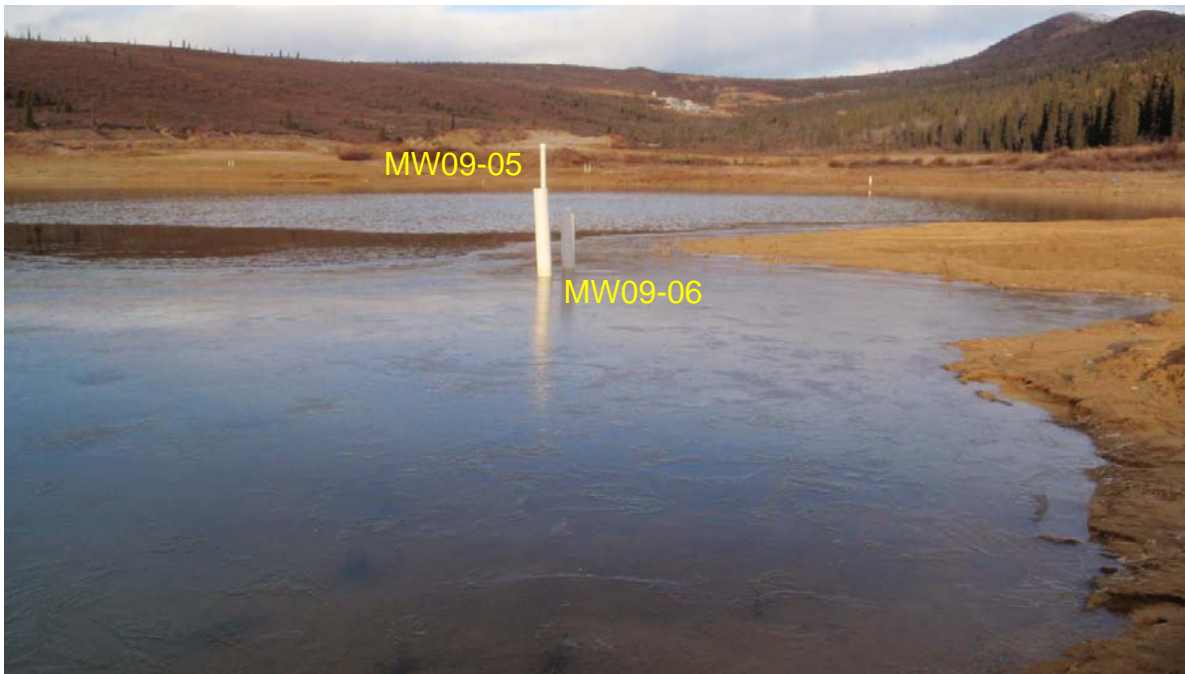
## 2.2 Seep Sampling

A seep that emerged from the base of the seepage pond dam, at the southern end abutment with hillside (Figure 1, Photo 3), was sampled. The results are given in Appendix A. The flow rate was very low under a frozen surface. Accurate measurements of flow and seep size were not possible due to the fact that the seep was frozen on the surface. A water quality sample was collected using a peristaltic pump. In order to avoid sucking up sediment from the shallow flow a depression was dug below the flowing water, and then allowed to flush for an hour before sampling to remove sediment that had been stirred up. The peristaltic pump tubing was held at the edge of ice cover to draw water from as it emerged from the ice. The containers listed in Table 2 were filled. The seep sample was analyzed at ALS Environmental Laboratory along with the groundwater samples.

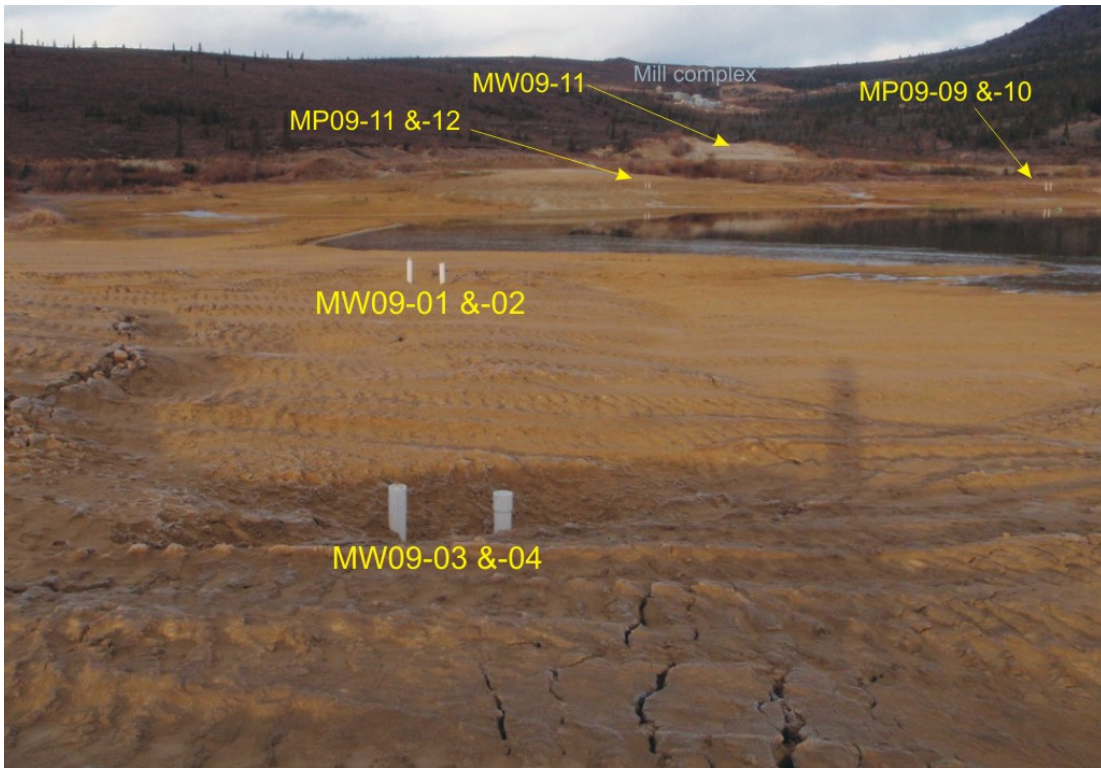
### 2.3 Surface Water Sampling

Surface water samples were collected from the tailings pond (Photo 4) and the outlet from the seepage pond (Photo 5). A duplicate sample was collected from the seepage pond. A field blank was collected at the seepage pond site. Samples at the tailings pond were collected through a hole made in the thin ice. In order to avoid sampling the pond surface, containers were submerged with the opening facing down then allowed to fill by tilting them upright under water. Samples at the seepage pond were collected directly from the outlet pipe. Samples requiring filtration (dissolved metals and dissolved organic carbon) were filtered in the field using a peristaltic pump and a 0.45 µm inline filter. Surface water samples were analyzed at ALS Environmental Laboratory along with the groundwater samples. EDI submitted samples to EXOVA, results were presented in lab data file 1475808. The tailings and seepage pond EXOVA samples are included in Appendix A.

### 3. Photos



**Photo 1: High water level in tailings pond submerged wells MW09-05 and MW09-06.**



**Photo 2: Location of monitoring wells at the tailings impoundment.**



**Photo 3: Frozen seep at base of seepage pond dam (See Figure 1).**



**Photo 4: EDI personnel collecting water sample at the tailings pond.**



**Photo 5: Outlet from seepage pond.**

# ***Appendix A: Water Quality Results***

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**UNITS**

<b>Physical Tests</b>	
Conductivity	uS/cm
Hardness (as CaCO <sub>3</sub> )	mg/L
pH	pH
Total Suspended Solids	mg/L
Total Dissolved Solids	mg/L
Turbidity	NTU
<b>Anions and Nutrients</b>	
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L
Ammonia (as N)	mg/L
Bromide (Br)	mg/L
Chloride (Cl)	mg/L
Fluoride (F)	mg/L
Nitrate (as N)	mg/L
Nitrite (as N)	mg/L
Total Kjeldahl Nitrogen	mg/L
Orthophosphate-Dissolved (as P)	mg/L
Phosphorus (P)-Total Dissolved	mg/L
Phosphorus (P)-Total	mg/L
Sulfate (SO <sub>4</sub> )	mg/L
Sulphide as S	mg/L
<b>Cyanides</b>	
Cyanide, Weak Acid Diss	mg/L
Cyanide, Total	mg/L
Thiocyanate (SCN)	mg/L
<b>Organic / Inorganic Carbon</b>	
Dissolved Organic Carbon	mg/L
<b>Total Metals</b>	
Aluminum (Al)-Total	mg/L
Antimony (Sb)-Total	mg/L
Arsenic (As)-Total	mg/L
Barium (Ba)-Total	mg/L
Beryllium (Be)-Total	mg/L
Bismuth (Bi)-Total	mg/L
Boron (B)-Total	mg/L
Cadmium (Cd)-Total	mg/L
Calcium (Ca)-Total	mg/L
Chromium (Cr)-Total	mg/L
Cobalt (Co)-Total	mg/L
Copper (Cu)-Total	mg/L
Iron (Fe)-Total	mg/L
Lead (Pb)-Total	mg/L
Lithium (Li)-Total	mg/L
Magnesium (Mg)-Total	mg/L
Manganese (Mn)-Total	mg/L
Molybdenum (Mo)-Total	mg/L
Nickel (Ni)-Total	mg/L
Phosphorus (P)-Total	mg/L
Potassium (K)-Total	mg/L
Selenium (Se)-Total	mg/L
Silicon (Si)-Total	mg/L
Silver (Ag)-Total	mg/L
Sodium (Na)-Total	mg/L
Strontium (Sr)-Total	mg/L
Thallium (Tl)-Total	mg/L
Tin (Sn)-Total	mg/L
Titanium (Ti)-Total	mg/L
Uranium (U)-Total	mg/L
Vanadium (V)-Total	mg/L
Zinc (Zn)-Total	mg/L

**UNITS**

<b>Dissolved Metals</b>	
Aluminum (Al)-Dissolved	mg/L
Antimony (Sb)-Dissolved	mg/L
Arsenic (As)-Dissolved	mg/L
Barium (Ba)-Dissolved	mg/L
Beryllium (Be)-Dissolved	mg/L
Bismuth (Bi)-Dissolved	mg/L
Boron (B)-Dissolved	mg/L
Cadmium (Cd)-Dissolved	mg/L
Calcium (Ca)-Dissolved	mg/L
Chromium (Cr)-Dissolved	mg/L
Cobalt (Co)-Dissolved	mg/L
Copper (Cu)-Dissolved	mg/L
Iron (Fe)-Dissolved	mg/L
Lead (Pb)-Dissolved	mg/L
Lithium (Li)-Dissolved	mg/L
Magnesium (Mg)-Dissolved	mg/L
Manganese (Mn)-Dissolved	mg/L
Molybdenum (Mo)-Dissolved	mg/L
Nickel (Ni)-Dissolved	mg/L
Phosphorus (P)-Dissolved	mg/L
Potassium (K)-Dissolved	mg/L
Selenium (Se)-Dissolved	mg/L
Silicon (Si)-Dissolved	mg/L
Silver (Ag)-Dissolved	mg/L
Sodium (Na)-Dissolved	mg/L
Strontium (Sr)-Dissolved	mg/L
Thallium (Tl)-Dissolved	mg/L
Tin (Sn)-Dissolved	mg/L
Titanium (Ti)-Dissolved	mg/L
Uranium (U)-Dissolved	mg/L
Vanadium (V)-Dissolved	mg/L
Zinc (Zn)-Dissolved	mg/L

**RESULTS OF ANALYSIS**

Sample ID	ALS file #L1066527																
	Tailings and Seepage Pond																
	MW09-01	MW09-02	MW09-03	MW09-04	MW09-07	MW09-08	MW09-11	MW09-21	MW09-22	MW09-23	MW09-24	MP09-04	MP09-05	MP09-09	MP09-10	MP09-11	MP09-12
Date Sampled	27-SEP-11	27-SEP-11	27-SEP-11	27-SEP-11	28-SEP-11	29-SEP-11	29-SEP-11	28-SEP-11	28-SEP-11	28-SEP-11	29-SEP-11	28-SEP-11	28-SEP-11	27-SEP-11	27-SEP-11	26-SEP-11	27-SEP-11
<b>Physical Tests</b>																	
Conductivity	1560	2880	2700	2530	2140	124	720	942	479	1690	385	1020	2210	913	603	1160	1150
Hardness (as CaCO3)	803	1390	1660	1500	1230	55.6	405	458	249	990	199	621	1060	484	231	697	699
pH	7.54	7.00	8.17	8.04	7.07	7.07	8.00	7.24	7.40	7.52	7.85	7.97	7.38	8.46	8.47	8.27	8.28
Total Suspended Solids	36.2	18.2	<3.0	<3.0	16.2	<3.0	4.8	<3.0	3.5	24.2	<3.0	<3.0	140	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	1190	2720	2670	2480	1900	165	408	705	319	1350	250	790	1750	668	484	953	823
Turbidity	536	125	0.27	0.31	86.4	1.26	21.9	70.3	11.9	149	<0.10	0.16	820	1.07	3.14	40.3	69.4
<b>Anions and Nutrients</b>																	
Alkalinity, Total (as CaCO3)	563	32.3	165	40.4	224	64.6	379	338	193	278	126	225	290	446	142	714	697
Ammonia (as N)	10.7	14.6	9.39	10.7	3.45	1.11	2.67	12.0	0.057	7.30	0.0124	0.0918	13.2	5.84	3.61	5.78	3.74
Bromide (Br)	<1.0	<1.0	<1.0	<1.0	<1.0	<0.25	<0.25	<0.50	<0.050	<1.0	<0.050	<0.50	<1.0	<0.50	0.113	0.58	<0.50
Chloride (Cl)	<10	<10	<10	<10	<10	<2.5	<2.5	<5.0	<0.50	<10	<0.50	<5.0	<10	<5.0	4.42	6.4	<5.0
Fluoride (F)	<0.40	0.72	0.43	0.59	<0.40	0.10	0.34	<0.20	0.078	<0.40	0.044	<0.20	<0.40	0.55	1.44	0.27	0.51
Nitrate (as N)	<0.10	<0.10	6.48	0.57	<0.10	<0.025	2.27	<0.050	1.36	0.12	1.79	4.41	<0.10	<0.050	0.0316	<0.050	<0.050
Nitrite (as N)	<0.020	<0.020	0.553	0.044	<0.020	<0.005	0.0072	<0.010	0.0065	0.046	<0.0010	0.021	<0.020	<0.010	0.0043	<0.010	<0.010
Total Kjeldahl Nitrogen	29.9	33.4	10.8	25.8	4.97	2.73	3.05	42.3	1.08	9.54	0.290	0.598	21.7	8.06	5.25	14.6	7.23
Orthophosphate-Dissolved (as P)	<0.0010	0.0031	0.26	0.22	<0.0010	0.0917	<0.0010	<0.0010	<0.0010	<0.0010	0.0077	0.0022	<0.0010	0.60	1.06	0.209	0.066
Phosphorus (P)-Total Dissolved	0.0187	0.149	0.177	0.151	0.0142	0.120	0.0040	0.0133	<0.0020	0.0040	0.0103	0.0026	0.0128	0.720	0.93	0.344	0.207
Phosphorus (P)-Total	0.300	0.257	0.183	0.151	0.0471	0.120	0.0109	0.0281	0.0045	0.0125	0.0104	0.0029	0.0207	0.715	0.91	0.574	0.519
Sulfate (SO4)	389	1830	1730	1710	1250	<2.5	30.3	194	70.4	809	74.8	362	1070	83.0	148	8.8	24.6
Sulphide as S	0.022	<0.020	<0.020	<0.020	<0.020	0.066	<0.020	0.030	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.10	0.021	<0.020
<b>Cyanides</b>																	
Cyanide, Weak Acid Diss	0.0499	0.732	0.0953	0.0135	0.162	0.0081	<0.0050	0.0127	0.0168	0.0431	<0.0050	0.0100	0.736	0.0390	0.238	0.0147	0.0179
Cyanide, Total	0.0635	0.186	0.136	0.0157	0.112	0.0173	0.0060	0.0280	0.0185	0.0407	<0.0050	0.0246	0.340	0.153	0.572	0.0345	0.0293
Thiocyanate (SCN)	14.0	2.87	0.80	0.67	6.14	4.00	1.28	8.09	1.47	1.20	<0.50	0.73	23.4	1.28	1.26	6.30	4.84
<b>Organic / Inorganic Carbon</b>																	
Dissolved Organic Carbon	45.0	7.32	8.47	5.98	15.6	19.8	8.05	40.1	10.9	14.9	4.28	94.8	50.4	36.4	30.6	112	47.5
<b>Total Metals</b>																	
Aluminum (Al)-Total	0.137	<0.015	<0.015	<0.015	0.122	0.134	0.0102	0.280	0.0520	0.151	0.0253	0.0125	0.0450	1.70	0.217	0.793	0.465
Antimony (Sb)-Total	0.00161	0.00517	0.579	0.516	0.00574	0.00048	0.00019	0.00028	0.00018	0.00033	0.00017	0.00028	0.00068	0.162	0.165	0.0226	0.0526
Arsenic (As)-Total	0.115	13.4	4.56	3.91	0.333	0.290	0.0125	0.0427	0.00392	0.0165	0.00155	0.00143	0.0216	6.43	17.8	3.63	8.03
Barium (Ba)-Total	0.139	0.00943	0.0272	0.00493	0.0268	0.0702	0.464	0.219	0.0931	0.102	0.0591	0.0353	0.0899	0.0648	0.0116	0.256	0.136
Beryllium (Be)-Total	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	<0.00010	<0.00010	<0.00020	<0.00010	<0.00020	<0.00010	<0.00010
Bismuth (Bi)-Total	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050	<0.00050	<0.0010	0.00892	<0.0010	0.00100	0.00239
Boron (B)-Total	0.081	0.056	0.222	0.234	0.071	<0.010	0.029	0.019	0.028	0.116	0.015	0.023	0.058	0.012	<0.020	0.042	0.055
Cadmium (Cd)-Total	0.000637	0.00133	0.000087	<0.000050	0.000730	0.000014	0.000017	0.000297	0.000034	0.000071	0.000024	0.00144	0.000099	0.00196	0.000716	0.00121	0.000779
Calcium (Ca)-Total	263	463	512	463	371	16.7	88.3	155	92.4	316	61.2	162	329	133	81.3	142	131
Chromium (Cr)-Total	0.00293	<0.00050	<0.00050	<0.00050	0.00074	0.00157	0.00026	0.00303	0.00077	0.00097	0.00074	0.00055	0.00115	0.00596	0.00100	0.00415	0.00235
Cobalt (Co)-Total	0.00627	0.0114	0.00522	0.00194	0.0143	0.00075	0.00041	0.0155	0.00555	0.0150	0.00033	0.00078	0.0253	0.00673	0.0274	0.00308	0.00148
Copper (Cu)-Total	<0.0010	<0.0025	<0.0025	<0.0025	0.0068	0.00053	0.00115	0.00578	0.00557	<0.0010	0.00792	0.00664	0.0011	0.0772	0.505	0.0126	0.0103
Iron (Fe)-Total	44.1	18.8	0.051	<0.030	13.5	23.9	2.44	35.5	6.75	14.5	0.051	<0.030	73.8	9.94	1.27	14.1	9.62
Lead (Pb)-Total	0.00560	0.00223	0.00046	<0.00025	0.00952	0.000902	<0.000050	0.000533	<0.000050	0.00023	<0.000050	<0.000050	0.00023	0.805	0.0832	0.0975	0.279
Lithium (Li)-Total	<0.0010	0.0152	<0.0025	<0.0025	0.0019	<0.00050	0.00185	<0.00050	<0.00050	<0.0010	0.00095	0.00135	<0.0010	0.00523	0.0016	0.00240	0.00266

**RESULTS OF ANALYSIS**

Sample ID	ALS file #L1066527																
	Tailings and Seepage Pond																
	MW09-01	MW09-02	MW09-03	MW09-04	MW09-07	MW09-08	MW09-11	MW09-21	MW09-22	MW09-23	MW09-24	MP09-04	MP09-05	MP09-09	MP09-10	MP09-11	MP09-12
Date Sampled	27-SEP-11	27-SEP-11	27-SEP-11	27-SEP-11	28-SEP-11	29-SEP-11	29-SEP-11	28-SEP-11	28-SEP-11	28-SEP-11	29-SEP-11	28-SEP-11	28-SEP-11	27-SEP-11	27-SEP-11	26-SEP-11	27-SEP-11
Magnesium (Mg)-Total	35.3	59.1	80.3	70.7	62.8	3.47	42.8	14.0	5.54	40.1	12.0	45.4	44.9	33.5	4.74	83.0	91.1
Manganese (Mn)-Total	4.95	24.4	4.19	1.68	11.4	1.48	0.485	3.06	1.33	7.02	0.00183	1.42	15.3	2.97	0.485	3.77	2.87
Molybdenum (Mo)-Total	0.00098	0.00565	0.00834	0.00813	0.00166	0.000133	0.00747	0.000422	0.000519	0.00388	0.000307	0.000234	0.00053	0.0154	0.0189	0.0129	0.00835
Nickel (Ni)-Total	0.0029	0.0051	<0.0025	<0.0025	0.0149	<0.00050	0.00125	0.00262	0.00153	0.0014	<0.00050	0.00219	0.0078	0.00540	0.0250	0.0140	0.00746
Phosphorus (P)-Total	0.36	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.48	0.50	<0.30
Potassium (K)-Total	8.0	74.7	33.5	42.4	12.4	<2.0	3.7	2.6	12.5	<2.0	2.7	7.9	24.3	13.3	5.0	5.1	
Selenium (Se)-Total	0.00034	<0.00050	<0.00050	<0.00050	<0.00020	0.00014	0.00160	0.00037	0.00020	<0.00020	0.00091	0.00040	0.00036	0.00037	0.00087	0.00064	0.00031
Silicon (Si)-Total	8.74	5.80	9.31	9.43	10.2	8.76	4.27	6.18	4.66	6.22	5.61	5.61	6.97	28.1	18.2	10.9	12.5
Silver (Ag)-Total	0.000077	<0.000050	0.000117	<0.000050	0.000379	0.000022	<0.000010	0.000022	0.000032	0.000034	0.000015	<0.000010	0.000040	0.00793	0.00935	0.00112	0.00191
Sodium (Na)-Total	76.6	113	64.8	55.6	64.5	<2.0	9.5	28.5	11.8	22.6	9.3	10.9	132	16.3	37.5	40.7	25.3
Strontium (Sr)-Total	0.822	1.01	1.36	1.18	1.03	0.0804	0.649	0.509	0.305	0.823	0.268	0.416	1.05	0.665	0.274	0.863	0.821
Thallium (Tl)-Total	<0.000020	0.000199	<0.000050	0.000053	0.000097	<0.000010	<0.000010	0.000039	<0.000010	<0.000020	<0.000010	<0.000010	<0.000020	0.00124	0.000187	0.000219	0.000494
Tin (Sn)-Total	<0.00020	<0.00050	<0.00050	<0.00050	0.00021	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	<0.00010	<0.00010	<0.00020	0.00015	0.00115	0.00013	0.00012
Titanium (Ti)-Total	0.017	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.015	<0.010	0.011	<0.010	<0.010	<0.010	0.027	<0.010	0.048	0.014
Uranium (U)-Total	0.000937	0.000367	0.00298	0.000094	0.00216	0.000125	0.00387	0.000513	0.00124	0.00239	0.00129	0.00220	0.00169	0.00150	0.00115	0.000404	0.000907
Vanadium (V)-Total	0.0127	<0.0050	<0.0050	<0.0050	<0.0020	0.0058	<0.0010	0.0077	<0.0010	0.0046	<0.0010	<0.0010	0.0027	0.0032	<0.0020	0.0189	0.0079
Zinc (Zn)-Total	0.110	0.571	<0.015	<0.015	0.656	<0.0030	0.0031	0.0114	<0.0030	<0.0060	<0.0030	0.0131	0.0272	0.106	0.0522	0.0675	0.0511
<b>Dissolved Metals</b>																	
Aluminum (Al)-Dissolved	0.0627	<0.015	<0.015	<0.015	0.0246	0.122	<0.0030	0.143	0.0349	0.0261	<0.0030	<0.0030	0.0328	<0.0030	<0.0060	0.0102	0.0053
Antimony (Sb)-Dissolved	0.00027	0.00419	0.572	0.559	0.00515	0.00033	0.00021	0.00022	0.00017	0.00031	0.00016	0.00030	0.00067	0.101	0.166	0.00465	0.0221
Arsenic (As)-Dissolved	0.110	16.1	4.15	4.14	0.332	0.309	0.0132	0.0398	0.00367	0.0114	0.00138	0.00131	0.0227	6.29	18.8	3.77	7.74
Barium (Ba)-Dissolved	0.136	0.0100	0.0305	0.00540	0.0252	0.0710	0.475	0.204	0.0895	0.102	0.0571	0.0351	0.0953	0.0180	0.00647	0.245	0.120
Beryllium (Be)-Dissolved	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	<0.00010	<0.00010	<0.00020	<0.00010	<0.00020	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050	<0.00050	<0.0010	<0.00050	<0.0010	<0.00050	<0.00050
Boron (B)-Dissolved	0.074	<0.050	0.252	0.250	0.067	<0.010	0.027	0.016	0.023	0.115	0.011	0.019	0.058	<0.010	<0.020	0.037	0.048
Cadmium (Cd)-Dissolved	0.000022	0.000833	0.000134	<0.000050	0.000514	<0.000010	0.000017	0.000139	0.000027	0.000036	0.000021	0.00122	0.000079	0.000102	0.000187	0.000036	0.000071
Calcium (Ca)-Dissolved	263	463	525	477	385	16.7	90.3	159	90.8	328	60.4	170	346	136	84.1	141	132
Chromium (Cr)-Dissolved	0.00256	<0.00050	<0.00050	<0.00050	0.00038	0.00141	<0.00010	0.00252	0.00055	0.00056	0.00043	0.00043	0.00105	0.00021	<0.00020	0.00238	0.00139
Cobalt (Co)-Dissolved	0.00618	0.0116	0.00618	0.00202	0.0143	0.00075	0.00039	0.0156	0.00534	0.0157	0.00029	0.00083	0.0271	0.00692	0.0266	0.00258	0.00139
Copper (Cu)-Dissolved	<0.0010	<0.0025	<0.0025	<0.0025	0.0012	<0.00050	0.00093	0.00296	0.00334	<0.0010	0.00741	0.00594	<0.0010	0.0416	0.262	0.00056	<0.00050
Iron (Fe)-Dissolved	44.3	20.3	0.053	<0.030	12.7	23.1	2.50	31.3	6.46	10.7	<0.030	<0.030	76.5	0.185	0.108	12.3	6.60
Lead (Pb)-Dissolved	<0.00010	<0.00025	<0.00025	<0.00025	0.00037	0.000269	<0.000050	<0.000050	<0.000050	<0.00010	<0.000050	<0.000050	<0.00010	0.00686	0.00270	0.000334	0.0110
Lithium (Li)-Dissolved	<0.0010	0.0146	<0.0025	<0.0025	0.0017	0.00053	0.00207	<0.00050	<0.00050	<0.0010	0.00067	0.00117	<0.0010	0.00468	0.0012	0.00187	0.00241
Magnesium (Mg)-Dissolved	35.6	57.3	85.3	73.7	66.1	3.37	43.5	14.7	5.47	41.8	11.6	47.7	47.4	35.1	5.03	83.8	89.9
Manganese (Mn)-Dissolved	4.82	25.4	7.22	1.80	11.6	1.54	0.474	3.05	1.28	7.24	0.000352	1.05	16.2	2.81	0.445	3.70	2.81
Molybdenum (Mo)-Dissolved	0.00091	0.00659	0.00811	0.00869	0.00175	0.000112	0.00723	0.000367	0.000457	0.00392	0.000279	0.000167	0.00054	0.0157	0.0191	0.0123	0.00846
Nickel (Ni)-Dissolved	0.0023	0.0047	<0.0025	<0.0025	0.0146	<0.00050	0.00120	0.00254	0.00144	0.0014	<0.00050	0.00196	0.0084	0.00512	0.0216	0.0126	0.00743
Phosphorus (P)-Dissolved	0.34	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.37	0.52	<0.30
Potassium (K)-Dissolved	7.9	80.2	31.0	42.9	12.6	<2.0	3.7	2.5	13.2	<2.0	2.7	8.4	23.9	13.6	4.8	4.8	
Selenium (Se)-Dissolved	0.00030	<0.00050	<0.00050	<0.00050	<0.00020	0.00013	0.00185	0.00037	0.00017	<0.00020	0.00097	0.00037	0.00037	0.00037	0.00094	0.00070	0.00030
Silicon (Si)-Dissolved	8.74	5.56	9.28	9.73	10.5	8.61	4.37	6.07	4.53	6.08	5.40	5.67	7.37	24.2	18.1	8.96	10.9
Silver (Ag)-Dissolved	<0.000020	<0.000050	0.000106	<0.000050	0.000037	<0.000010	<0.000010	<0.000010	<0.000010	<0.000020	<0.000010	<0.000010	<0.000020	0.000031	0.000098	0.000013	0.000012
Sodium (Na)-Dissolved	76.7	118	66.1	56.3	65.7	<2.0	9.6	29.5	11.6	24.4	8.8	11.7	138	17.2	38.2	41.5	25.6
Strontium (Sr)-Dissolved	0.816	1.10	1.45	1.25	1.07	0.0804	0.642	0.510	0.291	0.861	0.259	0.412	1.09	0.653	0.286	0.830	0.774
Thallium (Tl)-Dissolved	<0.000020	0.000188	<0.000050	0.000059	0.000087	<0.000010	<0.000010	0.000031	<0.000010	<0.000020	<0.000010	<0.000010	<0.000020	0.000022	0.000050	0.000013	0.000062
Tin (Sn)-Dissolved	<0.00020	<0.00050	<0.00050	<0.00050	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	<0.00010	<0.00010	<0.00020	<0.00010	<0.00020	<0.00010	<0.00010
Titanium (Ti)-Dissolved	0.012	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Dissolved	0.000885	0.000346	0.00379	0.000105	0.00219	0.000119	0.00391	0.000497	0.00120	0.00253	0.00122	0.00218	0.00175	0.00146	0.00123	0.000368	0.000844
Vanadium (V)-Dissolved	0.0121	<0.0050	<0.0050	<0.0050	<0.0020	0.0059	<0.0010	0.0066	<0.0010	0.0025	<0.0010	<0.0010	0.0027	<0.0010	<0.0020	0.0161	0.0070
Zinc (Zn)-Dissolved	0.0446	0.511	<0.015	<0.015	0.675	<0.0030	<0.0030	0.0062	<0.0030	<0.0060	<0.0030	0.0143	0.0290	0.0074	<0.0060	0.0221	0.0247

RESULTS OF ANALYSIS

Sample ID	ALS file #L1066527																EXOVA file #1475808		
	Pit		Mill			Groundwater QA/QC						Seepage Pond Seep		Lorax- Surface Water Samples		Lorax- Surface Water QA/QC		EDI- Surface Water Samples	
	MW09-14	MW09-16	MW09-17	MW09-18	MW09-19	MW09-02 DUP Duplicate	MW09-24D Duplicate	MW-B1 Field Blank	MW-B2 Field Blank	TRAVEL BLANK 1 Travel Blank	TRAVEL BLANK 2 Travel Blank	SDAM SEEP	TAILS POND	SEEP POND	SEEP POND DUP Duplicate	WQ BLNK Blank	TAILS POND	SEEP POND	
Date Sampled	29-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	27-SEP-11	29-SEP-11	28-SEP-11	29-SEP-11	Travel Blank	Travel Blank	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	
<b>Physical Tests</b>																			
Conductivity	1090	1990	2740	2750	2460	2910	383	<2.0	<2.0	<2.0	<2.0	101	1480	1480	1480	<2.0	1520	1480	
Hardness (as CaCO3)	650	1350	1990	2030	1690	1420	196	<0.50	<0.50	<0.50	<0.50	53.0	894	817	820	<0.50	821	766	
pH	7.65	7.91	8.02	7.98	7.89	7.08	7.90	5.68	5.70	5.78	5.85	7.09	8.08	7.74	7.72	5.87	7.86	7.04	
Total Suspended Solids	7.5	<3.0	<3.0	<3.0	42.8	22.2	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	25.5	26.8	<3.0	3	22	
Total Dissolved Solids	818	1790	2690	2780	2390	2750	244	<10	<10	<10	<10	118	1250	1180	1220	<10	1150	1110	
Turbidity	19.5	1.01	0.15	0.20	208	72.6	<0.10	<0.10	<0.10	<0.10	<0.10	3.46	4.21	102	101	<0.10	-	-	
<b>Anions and Nutrients</b>																			
Alkalinity, Total (as CaCO3)	363	326	460	453	464	29.9	123	<2.0	<2.0	<2.0	<2.0	46.3	113	243	245	<2.0	108	246	
Ammonia (as N)	0.223	<0.0050	<0.0050	0.0204	1.58	14.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0487	0.173	4.16	4.89	<0.0050	<0.01	3.23	
Bromide (Br)	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<1.0	<1.0	<1.0	<0.050	-	-	
Chloride (Cl)	<5.0	<10	<10	<10	<10	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<10	<10	<10	<0.50	<0.5	<0.5	
Fluoride (F)	<0.20	<0.40	<0.40	<0.40	<0.40	0.81	0.044	<0.020	<0.020	<0.020	<0.020	<0.10	<0.40	<0.40	<0.40	<0.020	-	-	
Nitrate (as N)	6.39	0.60	0.65	0.16	<0.10	<0.10	1.74	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	0.52	3.64	3.71	<0.0050	<0.1	3.92	
Nitrite (as N)	0.011	<0.020	<0.020	<0.020	<0.020	<0.020	0.0030	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	<0.020	0.076	0.078	<0.0010	<0.1	<0.1	
Total Kjeldahl Nitrogen	0.460	0.131	0.103	0.119	2.02	34.5	0.284	<0.050	<0.050	<0.050	<0.050	0.955	6.36	6.20	<0.050	-	-		
Orthophosphate-Dissolved (as P)	<0.0010	<0.0010	0.0064	0.0062	<0.0010	0.0023	0.0082	<0.0010	<0.0010	<0.0010	<0.0010	0.0080	0.0042	<0.0010	<0.0010	<0.0010	-	-	
Phosphorus (P)-Total Dissolved	<0.0020	<0.0020	0.0082	<0.020	0.0064	0.198	0.0108	<0.0020	<0.0020	<0.0020	<0.0020	0.0208	<0.020	0.0063	0.0064	<0.0020	0.01	0.01	
Phosphorus (P)-Total	0.0195	0.0021	0.0083	<0.020	0.273	0.298	0.0103	<0.0020	<0.0020	<0.0020	<0.0020	0.0235	0.0124	0.0229	0.0226	<0.0020	0.012	0.01	
Sulfate (SO4)	282	1060	1620	1540	1310	1930	75.0	<0.50	<0.50	<0.50	<0.50	4.57	810	641	640	<0.50	627	559	
Sulphide as S	<0.020	<0.020	<0.020	<0.020	0.095	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.056	-	-	-	-	-	-	
<b>Cyanides</b>																			
Cyanide, Weak Acid Diss	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.904	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0067	0.0050	0.117	0.119	<0.0050	0.002	0.01	
Cyanide, Total	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.148	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0179	0.0109	0.105	0.0994	<0.0050	-	-	
Thiocyanate (SCN)	1.22	1.01	1.18	1.18	5.24	2.89	<0.50	<0.50	<0.50	<0.50	<0.50	2.10	0.95	6.97	6.96	<0.50	<0.1	3.8	
<b>Organic / Inorganic Carbon</b>																			
Dissolved Organic Carbon	5.47	4.11	3.78	4.30	11.6	6.21	4.37	<0.50	<0.50	<0.50	<0.50	13.6	10.4	17.8	18.3	0.52	-	-	
<b>Total Metals</b>																			
Aluminum (Al)-Total	0.0040	<0.0060	0.0088	0.0149	0.0356	<0.015	0.0174	<0.0030	<0.0030	<0.0030	<0.0030	0.205	0.0260	0.0209	0.0240	<0.0030	0.024	0.024	
Antimony (Sb)-Total	0.00052	0.0742	0.00040	0.00029	<0.00020	0.00487	0.00018	<0.00010	<0.00010	<0.00010	<0.00010	0.00025	0.0847	0.00066	0.00063	<0.00010	0.0806	0.0006	
Arsenic (As)-Total	0.0167	0.0194	0.0165	0.0746	0.0659	16.4	0.00153	<0.00010	<0.00010	<0.00010	<0.00010	0.0224	0.153	0.0342	0.0337	<0.00010	0.144	0.0321	
Barium (Ba)-Total	0.109	0.0146	0.0103	0.00965	0.0695	0.00978	0.0594	<0.000050	<0.000050	<0.000050	<0.000050	0.0465	0.0133	0.0640	0.0635	<0.000050	0.013	0.061	
Beryllium (Be)-Total	<0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	<0.00020	<0.00020	<0.00010	<0.00004	<0.00004	
Bismuth (Bi)-Total	<0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.0010	<0.0010	<0.00050	<0.001	<0.001	
Boron (B)-Total	<0.010	0.142	0.166	0.025	0.622	<0.050	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	0.106	0.067	0.068	<0.010	0.117	0.07	
Cadmium (Cd)-Total	<0.000010	0.0270	<0.000020	0.000079	<0.000020	0.000730	0.000025	<0.000010	<0.000010	<0.000010	<0.000010	0.000014	0.00154	0.00109	0.00113	<0.000010	0.00148	0.00112	
Calcium (Ca)-Total	187	317	376	399	356	471	61.4	<0.050	<0.050	<0.050	<0.050	14.6	260	258	252	<0.050	285	242	
Chromium (Cr)-Total	0.00019	0.00023	<0.00020	<0.00020	0.00043	<0.00050	0.00063	<0.00010	<0.00010	<0.00010	<0.00010	0.00123	<0.00020	0.00058	0.00063	<0.00010	<0.0004	0.0007	
Cobalt (Co)-Total	0.00384	0.00044	<0.00020	<0.00020	0.00218	0.0108	0.00033	<0.00010	<0.00010	<0.00010	<0.00010	0.00100	0.00139	0.00866	0.00886	<0.00010	0.00159	0.00896	
Copper (Cu)-Total	<0.00050	0.0058	<0.0010	<0.0010	<0.0010	<0.0025	0.00799	<0.00050	<0.00050	<0.00050	<0.00050	0.00111	0.0292	0.0075	0.0078	<0.00050	0.028	0.008	
Iron (Fe)-Total	1.64	0.133	<0.030	0.155	17.5	21.7	0.031	<0.030	<0.030	<0.030	<0.030	14.2	0.354	9.70	9.40	<0.030	0.369	9.54	
Lead (Pb)-Total	<0.000050	0.0128	<0.00010	0.00012	0.00015	0.00079	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000181	0.00834	<0.00010	0.00011	<0.000050	0.0091	0.0002	
Lithium (Li)-Total	0.00892	0.0103	0.0192	0.0147	0.0098	0.0146	0.00082	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0075	<0.0010	<0.0010	<0.00050	0.008	<0.001	

RESULTS OF ANALYSIS

Sample ID	ALS file #L1066527															EXOVA file #1475808			
	Pit	Mill				Groundwater QA/QC						Seepage Pond Seep	Lorax- Surface Water Samples		Lorax- Surface Water QA/QC		EDI- Surface Water Samples		
	MW09-14	MW09-16	MW09-17	MW09-18	MW09-19	MW09-02 DUP	MW09-24D	MW-B1	MW-B2	TRAVEL BLANK 1	TRAVEL BLANK 2	SDAM SEEP	TAILS POND	SEEP POND	SEEP POND DUP	WQ BLNK	TAILS POND	SEEP POND	
	29-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	Duplicate	Duplicate	Field Blank	Field Blank	Travel Blank	Travel Blank	29-SEP-11	29-SEP-11	29-SEP-11	Duplicate	Blank	29-SEP-11	29-SEP-11	29-SEP-11
Magnesium (Mg)-Total	43.5	148	250	253	191	57.8	11.7	<0.10	<0.10	<0.10	<0.10	3.64	57.3	46.1	45.4	<0.10	56.1	42.7	
Manganese (Mn)-Total	0.527	0.0987	0.00081	0.621	3.11	24.0	0.00128	<0.000050	<0.000050	<0.000050	<0.000050	0.356	0.713	6.27	6.23	<0.000050	0.773	6.55	
Molybdenum (Mo)-Total	0.00209	0.00015	<0.00010	<0.00010	0.00015	0.00666	0.000301	<0.000050	<0.000050	<0.000050	<0.000050	0.000185	0.00215	0.00109	0.00109	<0.000050	0.0021	0.001	
Nickel (Ni)-Total	0.00958	0.0037	<0.0010	<0.0010	0.0011	0.0039	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00122	0.0017	0.0033	0.0034	<0.00050	0.004	0.006	
Phosphorus (P)-Total	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.012	0.01
Potassium (K)-Total	2.4	6.4	7.4	7.6	5.8	82.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	14.4	6.2	6.0	<2.0	14.7	6	
Selenium (Se)-Total	<0.00010	<0.00020	0.00030	0.00030	<0.00020	<0.00050	0.00091	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	0.00027	0.00028	<0.00010	<0.0006	<0.0006	
Silicon (Si)-Total	8.20	5.21	4.95	5.15	7.69	5.42	5.47	<0.050	<0.050	<0.050	<0.050	6.58	2.62	7.27	7.02	<0.050	2.22	5.89	
Silver (Ag)-Total	<0.000010	0.000024	<0.000020	<0.000020	<0.000020	<0.000050	0.000013	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000158	0.000032	0.000035	<0.000010	0.00013	0.00002	
Sodium (Na)-Total	14.8	8.6	12.1	11.6	14.8	122	9.1	<2.0	<2.0	<2.0	<2.0	<2.0	25.4	46.7	45.3	<2.0	25.4	45.8	
Strontium (Sr)-Total	0.915	0.688	1.14	1.17	1.11	1.07	0.274	<0.00010	<0.00010	<0.00010	<0.00010	0.0724	0.622	0.768	0.766	<0.00010	0.661	0.805	
Thallium (Tl)-Total	<0.000010	0.000285	0.000189	0.000272	<0.000020	0.000174	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000224	<0.000020	<0.000020	<0.000010	0.00022	0.00001	
Tin (Sn)-Total	<0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	<0.00020	<0.00020	<0.00010	0.0003	0.0001	
Titanium (Ti)-Total	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.001	<0.001	
Uranium (U)-Total	0.0121	0.00401	0.00816	0.00820	0.000891	0.000318	0.00134	<0.000010	<0.000010	<0.000010	<0.000010	0.000112	0.00131	0.00238	0.00239	<0.000010	0.0014	0.0025	
Vanadium (V)-Total	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0047	<0.0020	<0.0020	<0.0020	<0.0010	0.0002	0.0018	
Zinc (Zn)-Total	<0.0030	3.37	<0.0060	<0.0060	<0.0060	0.454	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0031	0.110	0.0106	0.0108	<0.0030	0.128	0.012	
<b>Dissolved Metals</b>																			
Aluminum (Al)-Dissolved	<0.0030	<0.0060	<0.0060	<0.0060	0.0072	<0.015	<0.0030	<0.0030	<0.0030	-	-	0.179	0.0064	0.0095	0.0102	<0.0030	0.008	0.012	
Antimony (Sb)-Dissolved	0.00056	0.0805	0.00036	<0.00020	<0.00020	0.00429	0.00016	<0.00010	<0.00010	-	-	0.00024	0.0850	0.00059	0.00057	<0.00010	0.0868	0.0005	
Arsenic (As)-Dissolved	0.0162	0.0198	0.0163	0.0600	0.0661	17.5	0.00136	<0.00010	<0.00010	-	-	0.0194	0.111	0.0232	0.0232	<0.00010	0.108	0.0237	
Barium (Ba)-Dissolved	0.0981	0.0147	0.0101	0.00941	0.0701	0.00992	0.0575	<0.000050	<0.000050	-	-	0.0465	0.0129	0.0595	0.0590	<0.000050	0.014	0.06	
Beryllium (Be)-Dissolved	<0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00050	<0.00010	<0.00010	<0.00010	-	-	<0.00010	<0.00020	<0.00020	<0.00020	<0.00010	<0.00004	0.00007	
Bismuth (Bi)-Dissolved	<0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.00050	<0.00050	<0.00050	-	-	<0.00050	<0.0010	<0.0010	<0.0010	<0.00050	<0.001	<0.001	
Boron (B)-Dissolved	<0.010	0.123	0.150	<0.020	0.624	<0.050	0.011	<0.010	<0.010	-	-	<0.010	0.103	0.060	0.061	<0.010	0.108	0.061	
Cadmium (Cd)-Dissolved	<0.000010	0.0287	<0.000020	0.000068	<0.000020	0.000679	0.000023	<0.000010	<0.000010	-	-	0.000016	0.00130	0.000932	0.000984	<0.000010	0.00127	0.00094	
Calcium (Ca)-Dissolved	189	306	379	397	360	474	59.5	<0.050	<0.050	-	-	15.2	262	252	253	<0.050	243	238	
Chromium (Cr)-Dissolved	<0.00010	<0.00020	<0.00020	<0.00020	0.00021	<0.00050	0.00045	<0.00010	<0.00010	-	-	0.00085	<0.00020	0.00037	0.00038	<0.00010	<0.0004	0.0014	
Cobalt (Co)-Dissolved	0.00402	0.00050	<0.00020	<0.00020	0.00209	0.0115	0.00029	<0.00010	<0.00010	-	-	0.00094	0.00141	0.00840	0.00860	<0.00010	0.00132	0.00744	
Copper (Cu)-Dissolved	<0.00050	0.0057	<0.0010	<0.0010	<0.0010	<0.0025	0.00741	<0.00050	<0.00050	-	-	0.00094	0.0235	0.0032	0.0035	<0.00050	0.024	0.004	
Iron (Fe)-Dissolved	1.51	0.121	<0.030	<0.030	17.8	21.8	<0.030	<0.030	<0.030	-	-	12.5	0.064	6.63	6.67	<0.030	0.046	6.5	
Lead (Pb)-Dissolved	<0.000050	0.0117	<0.00010	<0.00010	<0.00010	<0.00025	<0.00050	<0.000050	<0.000050	-	-	0.000085	0.00139	<0.00010	<0.00010	<0.000050	0.001	<0.0001	
Lithium (Li)-Dissolved	0.00829	0.0083	0.0158	0.0143	0.0102	0.0158	0.00070	<0.00050	<0.00050	-	-	<0.00050	0.0072	<0.0010	<0.0010	<0.00050	0.009	0.001	
Magnesium (Mg)-Dissolved	43.0	143	254	252	193	56.8	11.5	<0.10	<0.10	-	-	3.68	58.1	45.5	45.7	<0.10	52.3	41.4	
Manganese (Mn)-Dissolved	0.473	0.117	0.00039	0.585	3.06	25.7	0.000346	<0.000050	<0.000050	-	-	0.313	0.685	6.07	6.08	<0.000050	0.702	6.45	
Molybdenum (Mo)-Dissolved	0.00191	0.00016	<0.00010	<0.00010	0.00014	0.00693	0.000286	<0.000050	<0.000050	-	-	0.000139	0.00216	0.00104	0.00103	<0.000050	0.002	0.0009	
Nickel (Ni)-Dissolved	0.0106	0.0037	<0.0010	<0.0010	0.0011	0.0041	<0.00050	<0.00050	<0.00050	-	-	0.00124	0.0018	0.0032	0.0033	<0.00050	<0.001	<0.001	
Phosphorus (P)-Dissolved	<0.30	<0.30	<0.30	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	-	-	<0.30	<0.30	<0.30	<0.30	<0.30	0.01	0.01	
Potassium (K)-Dissolved	2.3	6.1	7.7	7.4	5.8	83.6	<2.0	<2.0	<2.0	-	-	<2.0	14.3	6.1	6.1	<2.0	13.9	6	
Selenium (Se)-Dissolved	<0.00010	<0.00020	0.00030	0.00027	<0.00020	<0.00050	0.00099	<0.00010	<0.00010	-	-	<0.00010	<0.00020	0.00026	0.00024	<0.00010	<0.0006	<0.0006	
Silicon (Si)-Dissolved	8.32	4.99	5.03	5.04	7.70	5.59	5.34	<0.050	<0.050	-	-	6.65	2.57	7.05	7.06	<0.050	2.07	5.77	
Silver (Ag)-Dissolved	<0.000010	<0.000020	<0.000020	<0.000020	<0.000020	<0.000050	<0.000010	<0.000010	<0.000010	-	-	<0.000010	0.000038	<0.000020	<0.000020	<0.000010	0.00004	<0.00001	
Sodium (Na)-Dissolved	14.0	8.2	12.4	11.4	14.6	124	8.8	<2.0	<2.0	-	-	<2.0	25.2	45.0	45.3	<2.0	24.3	45.6	
Strontium (Sr)-Dissolved	0.897	0.682	1.12	1.12	1.13	1.13	0.259	<0.00010	<0.00010	-	-	0.0707	0.620	0.750	0.751	<0.00010	0.562	0.683	
Thallium (Tl)-Dissolved	<0.000010	0.000294	0.000187	0.000258	<0.000020	0.000174	<0.000010	<0.000010	<0.000010	-	-	<0.000010	0.000207	<0.000020	<0.000020	<0.000010	0.0002	0.00001	
Tin (Sn)-Dissolved	<0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00050	<0.00010	<0.00010	<0.00010	-	-	<0.00010	<0.00020	<0.00020	<0.00020	<0.00010	0.0002	0.0008	
Titanium (Ti)-Dissolved	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	0.0102	
Uranium (U)-Dissolved	0.0117	0.00396	0.00799	0.00791	0.000852	0.000320	0.00123	<0.000010	<0.000010	-	-	0.000097	0.00131	0.00234	0.00237	<0.000010	0.0013	0.0022	
Vanadium (V)-Dissolved	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0050	<0.0010	<0.0010	<0.0010	-	-	0.0041	<0.0020	<0.002					

**DETECTION LIMITS**

Sample ID	MW09-01	MW09-02	MW09-03	MW09-02 DUP	MW09-04	MW09-07	MW09-08	MW09-21	MW09-22	MW09-23	MW09-24	MW09-24D	MW09-14	MW09-16	MW09-17	MW09-18	MW09-19	
Date Sampled	27-SEP-11	27-SEP-11	27-SEP-11	27-SEP-11	27-SEP-11	28-SEP-11	29-SEP-11	28-SEP-11	28-SEP-11	28-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	
ALS Sample ID	L1066527-1	L1066527-2	L1066527-3	L1066527-4	L1066527-5	L1066527-6	L1066527-7	L1066527-8	L1066527-9	L1066527-10	L1066527-11	L1066527-12	L1066527-13	L1066527-14	L1066527-15	L1066527-16	L1066527-17	
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	
<b>Physical Tests</b>																		
Conductivity	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Hardness (as CaCO3)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
pH	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
Total Suspended Solids	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Total Dissolved Solids	15	15	15	15	15	15	10	10	10	15	10	10	10	15	15	15	15	
Turbidity	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
<b>Anions and Nutrients</b>																		
Alkalinity, Total (as CaCO3)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ammonia (as N)	0.25	0.25	0.25	0.25	0.25	0.25	0.13	0.25	0.025	0.25	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.025	
Bromide (Br)	1.0	1.0	1.0	1.0	1.0	1.0	0.50	0.50	0.050	1.0	0.050	0.050	0.50	1.0	1.0	1.0	1.0	
Chloride (Cl)	10	10	10	10	10	10	5.0	5.0	0.50	10	0.50	0.50	5.0	10	10	10	10	
Fluoride (F)	0.40	0.40	0.40	0.40	0.40	0.40	0.10	0.20	0.020	0.40	0.020	0.020	0.20	0.40	0.40	0.40	0.40	
Nitrate (as N)	0.10	0.10	0.10	0.10	0.10	0.10	0.025	0.050	0.0050	0.10	0.0050	0.0050	0.050	0.10	0.10	0.10	0.10	
Nitrite (as N)	0.020	0.020	0.020	0.020	0.020	0.020	0.0050	0.010	0.0010	0.020	0.0010	0.0010	0.010	0.020	0.020	0.020	0.020	
Total Kjeldahl Nitrogen	1.0	1.0	1.0	1.0	1.0	0.050	0.050	0.50	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	
Orthophosphate-Dissolved (as P)	0.0010	0.0010	0.10	0.0010	0.10	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	
Phosphorus (P)-Total Dissolved	0.0020	0.020	0.020	0.020	0.020	0.0020	0.020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	
Phosphorus (P)-Total	0.020	0.020	0.020	0.020	0.020	0.0020	0.020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.020	
Sulfate (SO4)	10	10	10	10	10	10	2.5	5.0	0.50	10	0.50	0.50	5.0	10	10	10	10	
Sulphide as S	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	
<b>Cyanides</b>																		
Cyanide, Weak Acid Diss	0.0050	0.025	0.0050	0.025	0.0050	0.025	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	
Cyanide, Total	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	
Thiocyanate (SCN)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
<b>Organic / Inorganic Carbon</b>																		
Dissolved Organic Carbon	1.0	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
<b>Total Metals</b>																		
Aluminum (Al)-Total	0.0060	0.015	0.015	0.015	0.015	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0060	
Antimony (Sb)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Arsenic (As)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Barium (Ba)-Total	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Beryllium (Be)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Bismuth (Bi)-Total	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	0.0010	
Boron (B)-Total	0.020	0.050	0.050	0.050	0.050	0.020	0.010	0.010	0.010	0.020	0.010	0.010	0.010	0.020	0.020	0.020	0.020	
Cadmium (Cd)-Total	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Calcium (Ca)-Total	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	
Chromium (Cr)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Cobalt (Co)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Copper (Cu)-Total	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	0.0010	
Iron (Fe)-Total	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	
Lead (Pb)-Total	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Lithium (Li)-Total	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	
Magnesium (Mg)-Total	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	

**DETECTION LIMITS**

Sample ID	MW09-01	MW09-02	MW09-03	MW09-02 DUP	MW09-04	MW09-07	MW09-08	MW09-21	MW09-22	MW09-23	MW09-24	MW09-24D	MW09-14	MW09-16	MW09-17	MW09-18	MW09-19	
Date Sampled	27-SEP-11	27-SEP-11	27-SEP-11	27-SEP-11	27-SEP-11	28-SEP-11	29-SEP-11	28-SEP-11	28-SEP-11	28-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	30-SEP-11	
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	
ALS Sample ID	L1066527-1	L1066527-2	L1066527-3	L1066527-4	L1066527-5	L1066527-6	L1066527-7	L1066527-8	L1066527-9	L1066527-10	L1066527-11	L1066527-12	L1066527-13	L1066527-14	L1066527-15	L1066527-16	L1066527-17	
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	
Manganese (Mn)-Total	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Molybdenum (Mo)-Total	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Nickel (Ni)-Total	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	
Phosphorus (P)-Total	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Potassium (K)-Total	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Selenium (Se)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Silicon (Si)-Total	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	
Silver (Ag)-Total	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Sodium (Na)-Total	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Strontium (Sr)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Thallium (Tl)-Total	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Tin (Sn)-Total	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Titanium (Ti)-Total	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	
Uranium (U)-Total	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Vanadium (V)-Total	0.0020	0.0050	0.0050	0.0050	0.0050	0.0020	0.0010	0.0010	0.0010	0.0020	0.0010	0.0010	0.0010	0.0020	0.0020	0.0020	0.0020	
Zinc (Zn)-Total	0.0060	0.015	0.015	0.015	0.015	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0060	
<b>Dissolved Metals</b>																		
Aluminum (Al)-Dissolved	0.0060	0.015	0.015	0.015	0.015	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0060	
Antimony (Sb)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Arsenic (As)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Barium (Ba)-Dissolved	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Beryllium (Be)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Bismuth (Bi)-Dissolved	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	
Boron (B)-Dissolved	0.020	0.050	0.050	0.050	0.050	0.020	0.010	0.010	0.010	0.020	0.010	0.010	0.010	0.020	0.020	0.020	0.020	
Cadmium (Cd)-Dissolved	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Calcium (Ca)-Dissolved	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	
Chromium (Cr)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Cobalt (Co)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Copper (Cu)-Dissolved	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	
Iron (Fe)-Dissolved	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	
Lead (Pb)-Dissolved	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Lithium (Li)-Dissolved	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	
Magnesium (Mg)-Dissolved	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
Manganese (Mn)-Dissolved	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Molybdenum (Mo)-Dissolved	0.00010	0.00025	0.00025	0.00025	0.00025	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.00010	
Nickel (Ni)-Dissolved	0.0010	0.0025	0.0025	0.0025	0.0025	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.0010	
Phosphorus (P)-Dissolved	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Potassium (K)-Dissolved	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Selenium (Se)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Silicon (Si)-Dissolved	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	
Silver (Ag)-Dissolved	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Sodium (Na)-Dissolved	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Strontium (Sr)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Thallium (Tl)-Dissolved	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Tin (Sn)-Dissolved	0.00020	0.00050	0.00050	0.00050	0.00050	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00020	
Titanium (Ti)-Dissolved	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	
Uranium (U)-Dissolved	0.000020	0.000050	0.000050	0.000050	0.000050	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000020	
Vanadium (V)-Dissolved	0.0020	0.0050	0.0050	0.0050	0.0050	0.0020	0.0010	0.0010	0.0010	0.0020	0.0010	0.0010	0.0010	0.0020	0.0020	0.0020	0.0020	
Zinc (Zn)-Dissolved	0.0060	0.015	0.015	0.015	0.015	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0060	

**DETECTION LIMITS**

Sample ID	MP09-09	MP09-10	MP09-11	MP09-12	MP09-04	MP09-05	MP09-11	MW-B1	MW-B2	SDAM SEEP	TAILS POND	SEEP POND	DUP	WQ BLNK	BLANK 1	BLANK 2
Date Sampled	27-SEP-11	27-SEP-11	26-SEP-11	27-SEP-11	28-SEP-11	28-SEP-11	29-SEP-11	28-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11		
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00		
ALS Sample ID	L1066527-18	L1066527-19	L1066527-20	L1066527-21	L1066527-22	L1066527-23	L1066527-24	L1066527-25	L1066527-26	L1066527-28	L1066527-29	L1066527-30	L1066527-31	L1066527-32	L1066527-33	L1066527-34
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
<b>Physical Tests</b>																
Conductivity	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Hardness (as CaCO3)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
pH	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Suspended Solids	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Dissolved Solids	10	10	10	10	10	15	10	10	10	10	10	10	10	10	10	10
Turbidity	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
<b>Anions and Nutrients</b>																
Alkalinity, Total (as CaCO3)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ammonia (as N)	0.25	0.25	0.25	0.25	0.0050	0.25	0.25	0.0050	0.0050	0.0050	0.0050	0.25	0.25	0.0050	0.0050	0.0050
Bromide (Br)	0.50	0.050	0.50	0.50	0.50	1.0	0.25	0.050	0.050	0.25	1.0	1.0	1.0	0.050	0.050	0.050
Chloride (Cl)	5.0	0.50	5.0	5.0	5.0	10	2.5	0.50	0.50	2.5	10	10	10	0.50	0.50	0.50
Fluoride (F)	0.20	0.020	0.20	0.20	0.20	0.40	0.10	0.020	0.020	0.10	0.40	0.40	0.40	0.020	0.020	0.020
Nitrate (as N)	0.050	0.0050	0.050	0.050	0.050	0.10	0.025	0.0050	0.0050	0.025	0.10	0.10	0.10	0.0050	0.0050	0.0050
Nitrite (as N)	0.010	0.0010	0.010	0.010	0.010	0.020	0.0050	0.0010	0.0010	0.0050	0.020	0.020	0.020	0.0010	0.0010	0.0010
Total Kjeldahl Nitrogen	0.10	0.10	0.50	0.10	0.050	0.50	0.050	0.050	0.050	0.050	0.050	0.10	0.10	0.050	0.050	0.050
Orthophosphate-Dissolved (as P)	0.10	0.10	0.010	0.010	0.0010	0.010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Phosphorus (P)-Total Dissolved	0.020	0.20	0.020	0.020	0.0020	0.020	0.0020	0.0020	0.0020	0.0020	0.020	0.0020	0.0020	0.0020	0.0020	0.0020
Phosphorus (P)-Total	0.020	0.20	0.020	0.020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Sulfate (SO4)	5.0	0.50	5.0	5.0	5.0	10	2.5	0.50	0.50	2.5	10	10	10	0.50	0.50	0.50
Sulphide as S	0.020	0.10	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	-	-	-	-	0.020	0.020
<b>Cyanides</b>																
Cyanide, Weak Acid Diss	0.0050	0.0050	0.0050	0.0050	0.0050	0.025	0.0050	0.0050	0.0050	0.0050	0.0050	0.025	0.025	0.0050	0.0050	0.0050
Cyanide, Total	0.0050	0.0050	0.0050	0.0050	0.0050	0.025	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050
Thiocyanate (SCN)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
<b>Organic / Inorganic Carbon</b>																
Dissolved Organic Carbon	1.0	1.0	1.0	0.50	1.0	1.0	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
<b>Total Metals</b>																
Aluminum (Al)-Total	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0030	0.0030	0.0030
Antimony (Sb)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Arsenic (As)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Barium (Ba)-Total	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	0.000050	0.000050
Beryllium (Be)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Bismuth (Bi)-Total	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	0.00050	0.00050
Boron (B)-Total	0.010	0.020	0.010	0.010	0.010	0.020	0.010	0.010	0.010	0.010	0.020	0.020	0.020	0.010	0.010	0.010
Cadmium (Cd)-Total	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	0.000010	0.000010
Calcium (Ca)-Total	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
Chromium (Cr)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Cobalt (Co)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Copper (Cu)-Total	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	0.00050	0.00050
Iron (Fe)-Total	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030
Lead (Pb)-Total	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	0.000050	0.000050
Lithium (Li)-Total	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	0.00050	0.00050
Magnesium (Mg)-Total	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

**DETECTION LIMITS**

Sample ID	MP09-09	MP09-10	MP09-11	MP09-12	MP09-04	MP09-05	MP09-11	MW-B1	MW-B2	SDAM SEEP	TAILS POND	SEEP POND	DUP	WQ BLNK	BLANK 1	BLANK 2
Date Sampled	27-SEP-11	27-SEP-11	26-SEP-11	27-SEP-11	28-SEP-11	28-SEP-11	29-SEP-11	28-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11	29-SEP-11		
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00		
ALS Sample ID	L1066527-18	L1066527-19	L1066527-20	L1066527-21	L1066527-22	L1066527-23	L1066527-24	L1066527-25	L1066527-26	L1066527-28	L1066527-29	L1066527-30	L1066527-31	L1066527-32	L1066527-33	L1066527-34
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Manganese (Mn)-Total	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	0.000050	0.000050
Molybdenum (Mo)-Total	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	0.000050	0.000050
Nickel (Ni)-Total	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	0.00050	0.00050
Phosphorus (P)-Total	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Potassium (K)-Total	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Selenium (Se)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Silicon (Si)-Total	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
Silver (Ag)-Total	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	0.000010	0.000010
Sodium (Na)-Total	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Strontium (Sr)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Thallium (Tl)-Total	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	0.000010	0.000010
Tin (Sn)-Total	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	0.00010	0.00010
Titanium (Ti)-Total	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Uranium (U)-Total	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	0.000010	0.000010
Vanadium (V)-Total	0.0010	0.0020	0.0010	0.0010	0.0010	0.0020	0.0010	0.0010	0.0010	0.0010	0.0020	0.0020	0.0020	0.0010	0.0010	0.0010
Zinc (Zn)-Total	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0030	0.0030	0.0030
<b>Dissolved Metals</b>																
Aluminum (Al)-Dissolved	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0030	-	-
Antimony (Sb)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Arsenic (As)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Barium (Ba)-Dissolved	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	-	-
Beryllium (Be)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Bismuth (Bi)-Dissolved	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	-	-
Boron (B)-Dissolved	0.010	0.020	0.010	0.010	0.010	0.020	0.010	0.010	0.010	0.010	0.020	0.020	0.020	0.010	-	-
Cadmium (Cd)-Dissolved	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	-	-
Calcium (Ca)-Dissolved	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-
Chromium (Cr)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Cobalt (Co)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Copper (Cu)-Dissolved	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	-	-
Iron (Fe)-Dissolved	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	-	-
Lead (Pb)-Dissolved	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	-	-
Lithium (Li)-Dissolved	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	-	-
Magnesium (Mg)-Dissolved	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	-
Manganese (Mn)-Dissolved	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	-	-
Molybdenum (Mo)-Dissolved	0.000050	0.00010	0.000050	0.000050	0.000050	0.00010	0.000050	0.000050	0.000050	0.000050	0.00010	0.00010	0.00010	0.000050	-	-
Nickel (Ni)-Dissolved	0.00050	0.0010	0.00050	0.00050	0.00050	0.0010	0.00050	0.00050	0.00050	0.00050	0.0010	0.0010	0.0010	0.00050	-	-
Phosphorus (P)-Dissolved	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	-	-
Potassium (K)-Dissolved	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	-	-
Selenium (Se)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Silicon (Si)-Dissolved	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-
Silver (Ag)-Dissolved	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	-	-
Sodium (Na)-Dissolved	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	-	-
Strontium (Sr)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Thallium (Tl)-Dissolved	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	-	-
Tin (Sn)-Dissolved	0.00010	0.00020	0.00010	0.00010	0.00010	0.00020	0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.00020	0.00010	-	-
Titanium (Ti)-Dissolved	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	-	-
Uranium (U)-Dissolved	0.000010	0.000020	0.000010	0.000010	0.000010	0.000020	0.000010	0.000010	0.000010	0.000010	0.000020	0.000020	0.000020	0.000010	-	-
Vanadium (V)-Dissolved	0.0010	0.0020	0.0010	0.0010	0.0010	0.0020	0.0010	0.0010	0.0010	0.0010	0.0020	0.0020	0.0020	0.0010	-	-
Zinc (Zn)-Dissolved	0.0030	0.0060	0.0030	0.0030	0.0030	0.0060	0.0030	0.0030	0.0030	0.0030	0.0060	0.0060	0.0060	0.0030	-	-