

MMG Resources Inc

Lupin Gold Mine Site Characterization and Cycle 3 Environmental Effects Monitoring Investigation of Cause Study Design Report

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Project Number:

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Date:

February, 2010

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February 10, 2010

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Dear Mr. Allen:

Project No: 60147160-4.2.1.1

Regarding: Lupin Gold Mine Site Characterization and Cycle 3 Environmental Effects Monitoring Investigation of Cause Study Design Report

On behalf of MMG Resources Inc (MMG), AECOM is pleased to submit the Site Characterization and Cycle 3 Environmental Effects Monitoring (EEM) Investigation of Cause (IOC) Study Design Report for the Lupin Gold Mine.

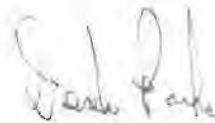
This study design report summarizes the general physical environment, hydrology, anthropogenic influences, aquatic resources and previous EEM study results associated with the Lupin Gold Mine site. This report also includes two proposed hypotheses to investigate the cause for the observed differences in Arctic grayling endpoints detected in both Cycle 1 and 2.

If you have any questions, or require further information on the report, please do not hesitate to contact Colleen via email or phone at 780-486-7041.

Sincerely,
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1. Introduction

AECOM Canada Ltd. (AECOM) was retained by MMG Resources Inc (MMG) to update the current Site Characterization Report and complete the Cycle 3 Environmental Effects Monitoring (EEM) Investigation of Cause (IOC) Study Design Report for their Lupin Gold Mine. Under the Metal Mining Effluent Regulations (MMER), Schedule 5, Section 9, mines are required to submit a Site Characterization Report along with the Study Design for the current EEM study. The Site Characterization Report summarizes the general physical environment, hydrology, anthropogenic influences, aquatic resources, environmental protection measures employed along with any existing federal and/or provincial regulations in respect to the mine's effluent discharge. This Cycle 3 EEM IOC Study Design Report presents three proposed hypotheses to resolve the cause(s) of different length and weight measurements observed in Arctic grayling (*Thymallus arcticus*) young-of-year, between the Exposure and Reference Areas, in the Cycle 1 and 2 studies. This study design is consistent with the Metal Mining Technical Guidance Document (TGD) and other insights from Environment Canada (EC 2002).

2. Site Characterization

Site characterization has been provided for the Lupin mine site in the Cycle 1 study design (Golder 2004) and in the Cycle 1 (Golder 2006a,b) and Cycle 2 (AECOM 2009) Interpretative Reports. This report contains an update of information on site activity and details since the Cycle 2 Interpretative Report.

2.1 Mine History

2.1.1 Mine Setting - Andrew

The Lupin Mine is located on the west shore of Contwoyto Lake, Nunavut, approximately 300 km south-east of Kugluktuk and 80 km south of the Arctic Circle (65°46' N, 111°15' W) (Figure 1).

Mine construction started in August 1980 and was completed in March 1982. The mine was operated continuously from 1982 to 1998 when operations were suspended and the mine went into care and maintenance status. Production resumed in April 2000 but in 2003 the mine went back into care and maintenance following a merger between Echo Bay Mine and Kinross. Operations were started again in 2004 but the mine once again went into care and maintenance in February 2005. In February of 2007, the Lupin Mine was sold to Wolfden Resources Inc. of Thunder Bay, Ontario. A holding company, Lupin Mines Inc. was created as a wholly owned subsidiary of Wolfden Resources Inc. to receive the Lupin assets and it is that company that is the legal owner of the property. In May 2007, Wolfden was acquired by Zinifex Limited of Melbourne Australia and ownership of Lupin Mines Inc. was transferred to Zinifex. In 2008, Zinifex Ltd. and Oxiana Ltd., both of Melbourne Australia merged to form OZ Minerals Ltd. with headquarters in Melbourne. Again, the ownership of Lupin Mines Inc. was transferred to the merged company. In 2009 the Canadian assets of Oz Minerals were sold to China Minmetals Inc. of Beijing, China. Minerals and Metals Group Ltd. was set up in Australia to receive the OZ Minerals assets. Minerals and Metals Group Ltd. is a wholly owned, privately held subsidiary of China Minmetals Inc. In Canada, the operating company for Minerals and Metals Group Ltd. is MMG Resources Canada Inc., which is the sole shareholder of Lupin Mines Inc., which in turn remains the legal owner of the Lupin Mine.

Lupin Mine included underground mining and production systems and an ore handling system. Mining and processing equipment was designed to manage up to 2,300 tonnes per day. Materials and supplies were brought into Lupin by air transport and winter road transport while labour was brought in by air transport. Lupin is a self-contained facility with power generation and sewage facilities. The tailings containment area (TCA) is located approximately 7 km south of the mine (Figure 2).

2.1.2 Tailings

As reported by Golder (2006a), effluent discharge began in September 1985. Discharge from the TCA was scheduled to occur between July and September. Effluent is discharged from the TCA into Dam Lake and eventually reaches Contwoyto Lake via Seep Creek, Seep Creek Lake, unnamed creek, unnamed lake and Inner Sun Bay of Contwoyto Lake (Figure 1).

2.1.3 Activities since Cycle 2 Interpretative Report

An overview of mine operations, including management of mine water and tailings was provided in the Cycle 1 report (Golder 2006a,b). Some changes to the site have occurred since 2006.

Reclamation activities in the TCA during 2005 saw a major portion of Cell 5 and another portion of Cell 3 covered by a minimum of 1.0 m of esker gravel. The work was carried out between June 23 and September 28, 2005, with a total area covered of approximately 383,001 m².

Approximately 250,000 m² of exposed tailings remain to be covered. This work was scheduled to be completed during the summer of 2006; however, due to the premature shutdown of the 2006 winter road, Lupin did not receive enough fuel to carry out the program as scheduled.

In 2008, as part of the preparation for discharge from the TCA, 76,000 kg of lime was spread on Pond 2. The lime was dispersed over the ice surface and then covered with snow to prevent wind from blowing it around. Effluent was not released in 2008.

In 2009, approximately 3 million cubic litres of effluent was released from tailings pond 2 after effluent was tested for toxicity and passed (A. Mitchell, Lupin Mine, pers. comm.). In spring 2010, ponds 1 and 2 will be treated with lime, treated effluent will be transferred to pond 2 and a small volume will be released after July 15, 2010. After 2010, small releases will be scheduled either every year or every second year.

No further activities have been carried out to date and the mine site remains in care and maintenance.

2.2 Climate

Climate in this region is semi-arid subarctic with a mean daily temperature of -11.1°C and average annual precipitation of 299 mm (Canadian Climate Normals 1961-2000). Average temperature in May through September is 4.6°C and the heaviest precipitation occurs in June through September (Canadian Climate Normals 1961-2000). Snowfall can occur in any month but the heaviest snowfalls generally occur in October with an average annual snowfall of 138.1 cm (Canadian Climate Normals 1961-2000). The study area is subject to frequent strong winds from the northwest (Beak Consultants Ltd. and Mary Collins Consultants Ltd. 1980; Geocon Ltd. 1980).

2.3 Geology and Topography

The bedrock in the vicinity of the Lupin Mine is archaic in age including supracrustal rocks of the Yellowknife supergroup of the Slave province of the Canadian shield. Rock types occurring in the vicinity of the mine include ultramafic, mafic, intermediate and felsic volcanic rocks, intrusive rocks and siliciclastic rocks and ironstones. The gold mineralization at the mine is hosted primarily by the ironstones. This region contains intrusive igneous material such as granite (Natural Resources Canada 2003). In the vicinity of the mine, terrain is low and undulating ranging between 450 and 530 m elevation. There are numerous shallow lakes and streams throughout the area (Gartner Lee Limited 2008a, b).

2.4 Vegetation

Lupin Mine is located in the subarctic tundra vegetation zone. This is an area characterized by continuous permafrost and "barren ground" vegetation including moss, lichens, heather and dwarf shrub communities in the well-drained areas, and grasses and sedges in the wet areas adjacent to waterbodies. Dwarf shrubs, up to 1 m high, occur adjacent to some waterbodies (RCPL and RL&L 1985).

2.5 Hydrology

Contwoyto Lake is the major waterbody in the study area with a surface area of approximately 959 km² and a drainage area of approximately 8,000 km² (Roberge *et al.* 1986). Contwoyto Lake has two outflows. The main outflow to the north, drains to the Burnside River and ultimately to Bathurst Inlet; the smaller outflow to the south, drains to the Contwoyto River and into Back River (Rescan 2002). The main basin of Contwoyto Lake is to the east and south of the mine (Figure 1). To the north of the mine, West Arm extends to the west terminating in a narrow bay (Outer and Inner Sun Bay). This area is west of the mine and ultimately receives mine waste after it has travelled through small lakes and streams.

Seep Creek, a small stream approximately 6.5 km in length, flows westerly from the mine area into Inner Sun Bay (Figure 1). Seep Creek watershed contains three lakes (Dam 2 Lake, Dam 1A Lake and Unnamed Lake), three headwater streams, two ponds (Seep Creek Ponds 1 and 2) and two embayment areas (Inner and Outer Sun Bay).

- Dam 2 Lake is a small lake, 7 m maximum depth, bordered to the north by a gravel pit and on the east by the TCA
- Dam 1A Lake is a shallow lake (< 1 m) south of Dam 2 Lake; water from the TCA discharges into this lake
- Dam 2 Lake and Dam 1A Lake are drained by tributaries that join to form Seep Creek
- Unnamed Lake is south of Dam 1A Lake

A tributary from Unnamed Lake joins Seep Creek approximately 400 m downstream of the Dam 2 Lake and Dam 1A Lake tributary confluence

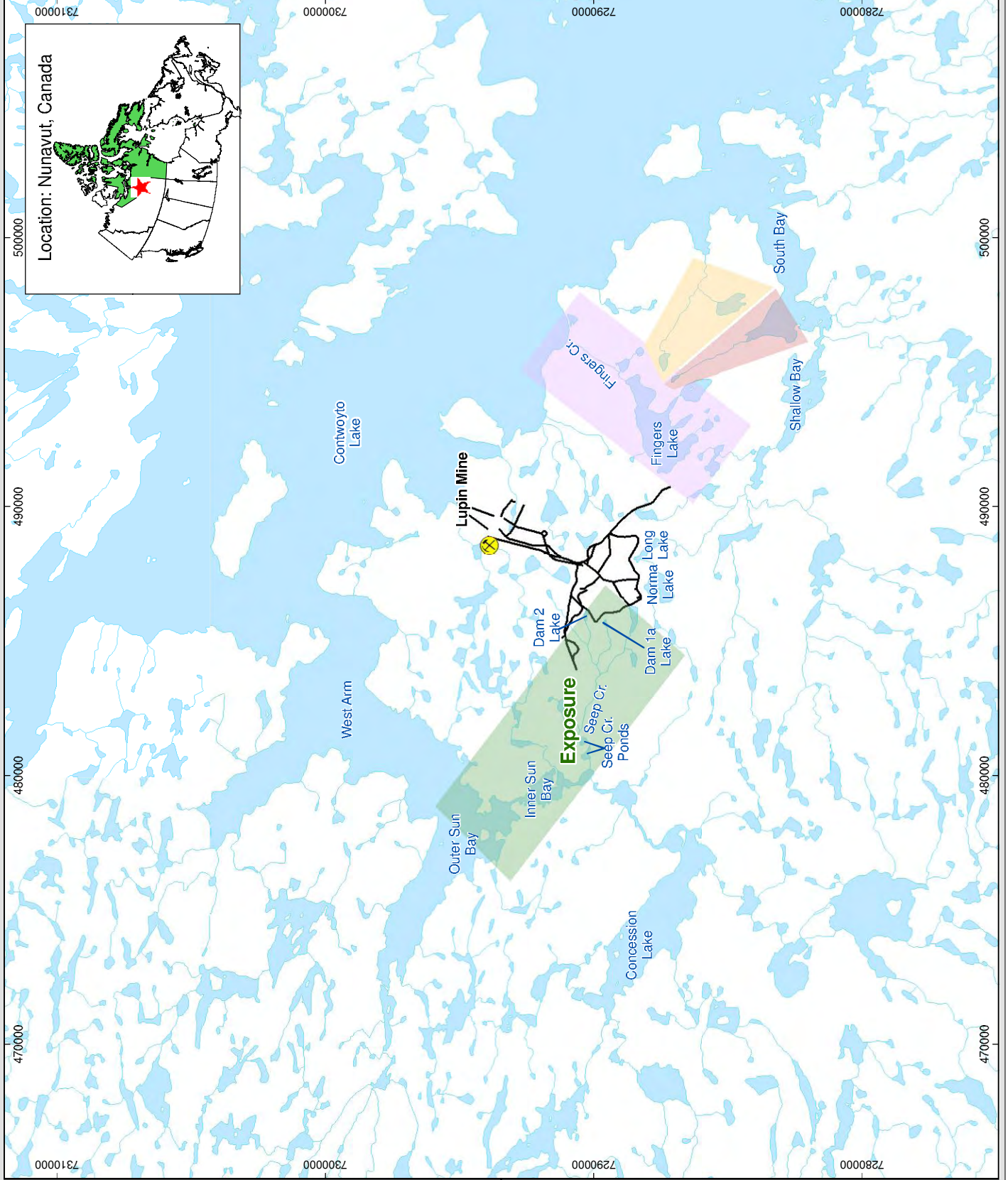
2.6 Aquatic Resources

2.6.1 Water Quality

One final effluent discharge monitoring point was identified by Kinross to Environment Canada. This station is identified as Surveillance Network Point (SNP) 925-10. In the Cycle 1 report, water quality results collected from this location were summarized (Golder 2006a). There were no samples collected from this location as part of the Cycle 2 EEM program. Routine parameters including pH, conductivity, total suspended solids (TSS) and metals, including arsenic, remained at consistent concentrations from 2000 to 2005 and less than the maximum concentrations of identified MMER deleterious substances.

Conductivity has historically been measured at various sampling points in the Exposure Area. Field conductivity at the mouth of Seep Creek was recorded at 519 $\mu\text{S}/\text{cm}$ (SNP 925-20) while at the mouth of Concession Creek (creek that drains Concession Lake before it enters Seep Creek watershed), conductivity was recorded at 11 $\mu\text{S}/\text{cm}$.

For Cycle 2 program, only one water quality sample was collected from SNP 925-20. Conductivity, hardness and pH were lower in 2008 as compared to 2000 to 2005 monitoring period. In addition, TSS and alkalinity, total cyanide, ammonia-nitrogen and total lead were non-detectable in the 2008 sample and total arsenic, cadmium, nickel and zinc were lower in 2008 than other years (Table 1). Concentration of total copper in 2008 was similar to previous years even though there was no effluent discharge in 2008.



Legend

Sampling Areas

Exposure

Reference Area 1

Reference Area 2

Reference Area 3

Mining Properties

MMG Minerals Property

All-Season Roads

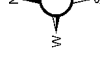
Existing Road Alignment

Hydrological Features

Watercourse

Waterbody

Map Sources/Notes:
National Topographic Database (NTDB) provided by the Government of Canada, Natural Resources Canada at 1:250,000 scale.
Exposure and Reference areas delineated by AECOM.



1:200,000

UTM Zone 12N, NAD 83

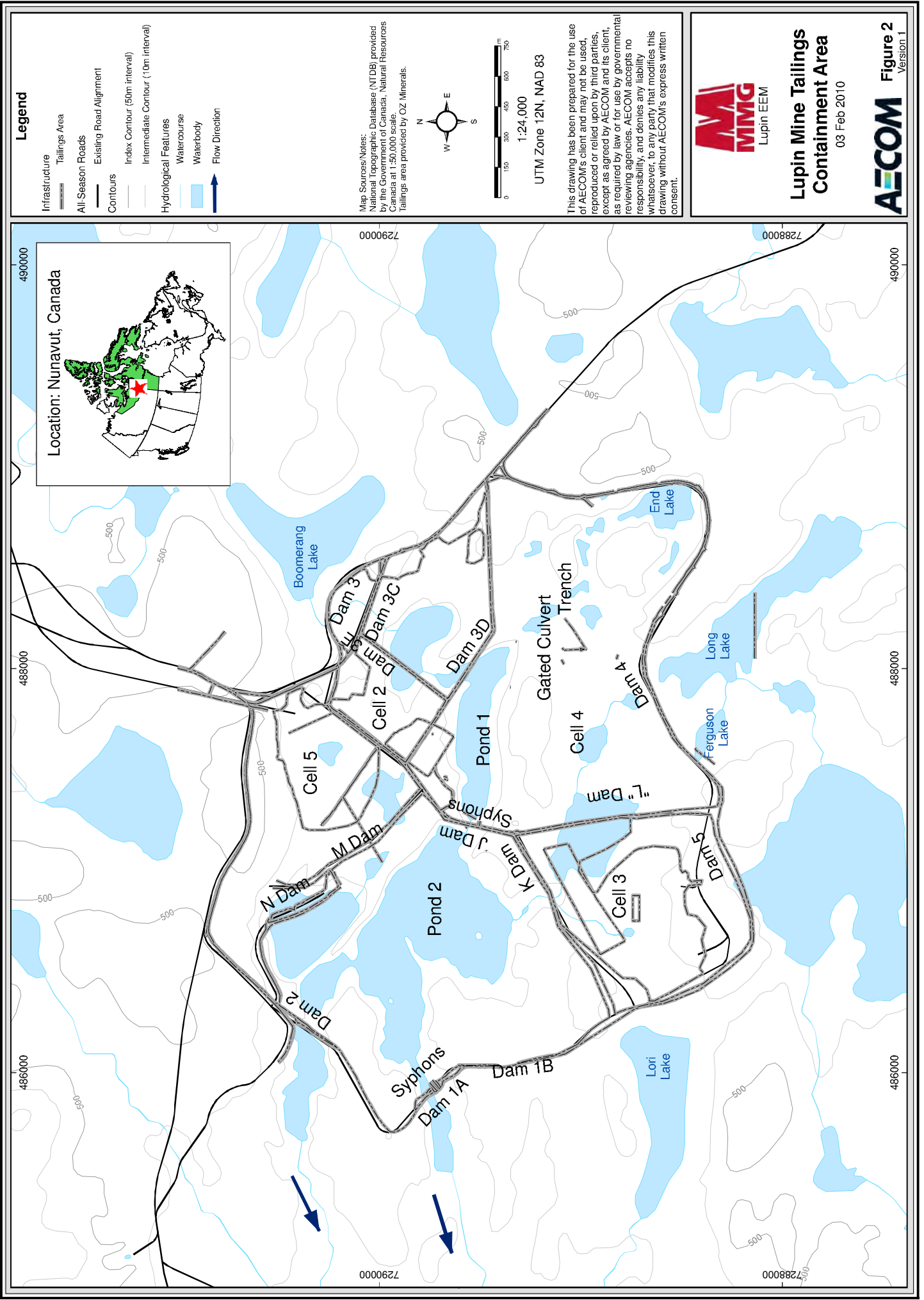
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**Exposure and Reference
Study Areas for the
Lupin Cycle 3 IOC EEM
Program**

05 February 2010

AECOM **Figure 1**
Version 1



Lupin Mine Tailings Containment Area
03 Feb 2010



Table 1. Summary of Water Quality Monitoring Downstream of Lupin Mine Effluent Discharge Location (SNP 925-20)

Parameter	Units	CCME Aquatic Life ^a	2000	2002	2005	2008
			Mean SD ^b	Mean SD ^b	Mean SD ^b	Sept
pH (units)	pH unit	6.5-9.0	6.03	6.48	5.7	5.6
			0.25	0.15	0.45	
Conductivity (µS/cm)	uS/cm		887	748	519	65.8
			37	114	279	
Hardness (as CaCO ₃)	mg/L		231	199	135	24
			9.1	34.3	75.4	
Total Suspended Solids	mg/L		0.53	0.93	<2	<3
			0.17	0.73	0	
Total Alkalinity (as CaCO ₃)	mg/L		<5	7.4	<5	<5
			0	9.2	0	
Total Cyanide	mg/L	0.005	0.007	0.015	0.016	<0.002
			0.004	0.014	0.008	
Ammonia-Nitrogen	mg/L	0.019	2.72	0.72	0.64	<0.005
			0.48	0.31	0.47	
Total Arsenic	mg/L	0.005	0.0024	0.0036	0.0032	0.00186
			0.0006	0.0006	0.0013	
Total Cadmium	mg/L	0.000017	<0.0006	0.00017	0.00017	0.00006
			0	0.00003	0.00010	
Total Copper	mg/L	0.002-0.004	0.005	0.004	0.005	0.0052
			0.002	0.002	0.002	
Total Lead	mg/L	0.001-0.00 ^d	<0.002	0.0002	0.0001	<0.00005
			0	0.0002	0.0001	
Total Nickel	mg/L	0.025-0.15	0.115	0.0755	0.0762	0.0426
			0.009	0.0084	0.0411	
Total Zinc	mg/L	0.03	0.228	0.146	0.159	0.0392
			0.026	0.017	0.091	

Note: a – Canadian water quality guidelines for the protection of aquatic life, Council of Ministers of the Environment, 2007; b – Golder, 2006a

2.6.2 Exposure Area

Seep Creek, Seep Creek Ponds, and Sun Bay were designated as the Exposure Area (Golder 2006a). Best attempts were made to use the same sampling stations in the Exposure Area in the Cycle 2 study, consistent with the Cycle 1 study design and other data provided in the Cycle 1 report. The aquatic habitat in the Exposure Area, downstream of the TCA, is referenced as the Seep Creek watershed. Lakes Dam 2, Dam 1A and unnamed are west of the TCA. Dam 1A Lake receives effluent from the final discharge point (FDP). Dam 1A Lake is drained by Seep Creek. Seep Creek joins with the creek that drains Dam 2 Lake. At this point, Seep Creek flows for approximately 2.5 km before it enters two ponds (Seep Creek Pond 2 and Seep Creek Pond 1). Seep Creek is a well defined channel, 1 to 4 m wide with substrate dominated by boulders (RCPL and RL&L 1985). Seep Creek Ponds 1 and 2 are shallow (less than 1.5 m).

Historically, Lake trout (*Salvelinus namaycush*), Arctic grayling (*Thymallus arcticus*), Arctic cisco (*Coregonus autumnalis*), round whitefish (*Prosopium cylindraceum*), ninespine stickleback (*Pungitius pungitius*) and slimy sculpin (*Cottus cognatus*) have been documented in Seep Creek (RCPL and RL&L 1985). Fish use this stream for spawning, feeding and juvenile rearing in the early part of the open water season (RL&L and DFO 1991).

2.6.3 Reference Area

Fingers Lake and Fingers Creek was designated as the Reference Area. The Fingers Lake watershed is located east of the mine. Like the Seep Creek watershed, the Fingers Lake watershed also has a connection to Contwoyto Lake. Fingers Creek flows for approximately 3 km between Fingers Lake and Contwoyto Lake. Fingers Creek is between 1 to 3 m wide with substrate dominated by silt, boulders and cobble in the upper reaches, cobble gravel and silt in the middle reaches and cobble and boulders in the lower reaches. Habitat varied between shallow flat in the upper reaches and shallow run in the lower reaches.

Fingers Lake has a maximum depth of 6 m and a surface area of 3.7 km². Lake trout and Arctic char (*Salvelinus alpinus*) have been captured in Fingers Lake (Moore 1978) and prior to the Cycle 1 EEM study, fish capture data for Fingers Creek had not been previously collected.

2.7 Previous EEM Studies

2.7.1 Cycle 1 EEM

The Cycle 1 EEM study was conducted in August 2005 and the report was submitted to EC in 2006 (Golder 2006a, b). The Exposure and Reference Areas were determined through a literature and study design submitted to EC (Golder 2004). The study design was based on a control/impact study design. The Cycle 1 study investigated the defined Exposure and Reference Areas and completed a plume delineation model. Plume delineation modelling indicated that, under worst-case scenarios, 1% plume concentrations can extend for approximately 1,600 m into Outer Sun Bay. Based on the Benthic Invertebrate Community (BIC) survey data, mine effluent significantly affected patterns of benthic community diversity and evenness within the aquatic receiving environment. Mine effluent did not significantly affect invertebrate density, family richness or the Bray-Curtis Index (BCI). The fish study focused on juvenile (age 1) Arctic grayling as the target species. Arctic grayling are common to both the Exposure and Reference Areas of the Lupin Mine EEM biological monitoring studies. This species is also commonly fished and consumed by local residents and mine personnel. The state of general health of Arctic grayling was similar between the Reference and the Exposure Areas. However, in the Reference Area, Arctic grayling were heavier, longer and in better condition than in the Exposure Area. Laboratory assessments determined that mine effluent did not have sublethal or acute effects on various test species. The results of the Cycle 1 EEM monitoring program indicated invertebrates and fish were impacted by mine effluent, based on the BIC and reference fish population attributes.

2.7.2 Cycle 2 EEM

The Cycle 2 EEM study was conducted in August and September 2008 and the report was submitted to EC in 2009 (AECOM 2009). The field program was designed to collect samples for water quality, sediment quality, fish (non-lethal and lethal sampling), and invertebrates during discharge of mine effluent. Effluent was scheduled to be released but due to malfunctioning equipment at the outfall and low pH of the effluent, it was not released in 2008. In any event, the completion of the field study was still required and was conducted, as proposed.

Field and lab water quality differed between the Exposure and Reference Areas: pH was lower and conductivity, hardness, magnesium, sodium, TOC, DOC, aluminum, boron, cadmium, chromium, cobalt, copper, iron, manganese and zinc were higher in the Exposure Area as compared to the Reference Area. Sediment grain size was similar between areas except for clay; there was more clay in exposure sediments as compared to reference sediments (3% and 1.8%, respectively). Sediment quality was significantly different for some parameters including arsenic, cobalt, copper, nickel and zinc which were higher in exposure as compared to reference sediments.

Mean invertebrate density was higher in the Exposure Area as compared to the Reference Area but the difference was not statistically significant.

Young-of-the-year (Age-0) Arctic grayling were lighter and shorter within the Exposure Area as compared to the Reference Area. The ratio of liver weight to fork length differed significantly by area (for a given fork length, livers were lighter in the Exposure Area as compared to the Reference Area). Body weight and length of ninespine stickleback in the Exposure Area were significantly heavier and longer, respectively, than Reference Area individuals. The ratio of liver weight to total length was statistically significantly different by area (for a given length, livers were heavier from Exposure Area versus individuals from the Reference Area).

2.7.3 Comparison of Cycle 1 and Cycle 2 EEM Studies

From Cycle 1 to Cycle 2 there was no consistency in Exposure versus Reference Area water quality. Sediment quality differences were similar for Cycle 1 and 2. Since there was no effluent release between Cycle 1 and 2, these variations in sediment and water quality parameters of the receiving environment suggest that the environment could be recovering but historical impacts may influence ecological recovery for some time.

In Cycle 1, there were more benthic invertebrates within the Reference Area as compared to the Exposure Area while in Cycle 2 there were more invertebrates in the Exposure Area as compared to the Reference Area. The average density of benthic invertebrates in the Reference Area was similar in both Cycle 1 and 2 but the average density of invertebrates in the Exposure Area was higher in Cycle 2 as compared to Cycle 1. There is some evidence that the benthic invertebrate community within the Exposure Area is recovering as a result of no effluent discharge, but without existing data on pre-disturbance conditions in the Exposure Area, interpretations remain uncertain.

Arctic grayling in the Exposure Area were shorter and lighter than in the Reference Area in both cycles while ninespine stickleback (Cycle 2 only), were heavier and longer in the Exposure Area than in the Reference Area.

3. Effluent Mixing in the Exposure Area

The MMER requires an estimate of effluent concentration at 250 m downstream from FDP and a description of effluent mixing within the environment to a concentration of 1%. When effluent is being released, it is common to use field conductivity measurements as a way to measure effluent concentration.

At Lupin Mine, 250 m downstream of the FDP is within Dam 1A Lake. In 2005, field conductivity measured from the effluent was 847 $\mu\text{S}/\text{cm}$ and the lab measured conductivity from the sample in Dam 1A Lake was 738 $\mu\text{S}/\text{cm}$. Base flows in Seep Creek are very low and it has been estimated that up to 90% of the flow is due to effluent discharge (RL&L and DFO 1991). Based on the conductivity of the sample from 250 m downstream of the FDP, the water in the receiving system was comprised of 87% effluent.

A mixing and dispersion model was developed by Golder (2004) to describe the movement and concentration of effluent from the FDP to Outer Sun Bay. The model predicted that the 1% effluent limit would extend 850 to 1200 m from the mouth of the narrows in Outer Sun Bay.

The dispersion model was initially developed using data from 2000 and 2002 but results were updated with data from 2005 (Golder 2006b). Runoff conditions were lower in 2005 than originally modelled. When these conditions were included and the model was re-analyzed, the 1% dispersion limit extended to 1630 m beyond station SNP 925-25. The 2005 results from the sample at SNP 925-25 were considered consistent with the model.

3.1 Historical Effluent Characteristics

Samples for effluent characterization have been collected in the TCA at station SNP 925-10. Effluent was released from the TCA at various periods from 1994 to 2005 (Table 2). Effluent was not released between 2005 and 2009.

Table 2. Total Annual Discharge Volumes from Lupin Mine TCA (SNP 925-10), 1994 to 2009

Year	Annual Total (m^3)	Discharge Period
1994	863,868	July 15 - 29
1995	938,715	July 15 – August 2
1996	1,139,233	July 15 – August 7
1997	2,892,289	July 15 – September 1
1998	0	n/a
1999	0	n/a
2000	2,701,360	July 15 – September 2
2001	0	n/a
2002	3,102,895	July 15 – September 7
2003	0	n/a
2004	0	n/a
2005	1,682,135	July 15 – August 11
2006	0	n/a
2007	0	n/a
2008	0	n/a
2009	2,897,461	July 25 th – Oct 7th

Samples for effluent characterization were collected in 2000, 2002 and 2005. Constituents listed in Schedule 4 of MMER have been sampled. Up to 2005, none of the constituents exceeded the authorized limits. Samples for effluent characterization were not collected in 2008, as there was no effluent discharge (Table 2).

4. Cycle 3 EEM IOC Study Design

4.1 EEM IOC Study Design

For the Lupin Mine Cycle 3 EEM IOC study, a biological monitoring program is required to assess the difference in growth that has been observed between Age-0 Arctic Grayling in one exposure stream and one reference stream. A review of the primary literature identified that Arctic grayling populations are most sensitive to perturbations that influence juvenile survival. Specifically, if juvenile survival of Arctic grayling decreases, it can jeopardize the viability of populations (Buzby and Deegan, 2004; Vélez-Espino et al. 2006). Other studies have demonstrated that age-0 Arctic grayling growth and survival are strongly dependent on temperature and availability of benthic invertebrates. For example, growth of juvenile Arctic grayling increases with mean water temperature (Deegan et al. 1999; Dion and Hughes, 2004; Luecke and MacKinnon, 2006) and a similar pattern of temperature-dependent growth was observed in the closely related European grayling (*T. thymallus*), particularly for the age-0 cohort in streams (e.g., Mallet et al. 1999). In addition, growth of age-0 Arctic grayling was positively correlated with greater proportions of invertebrates such as Chironomidae (i.e., chironimids) and Simuliidae (i.e., black flies) in the diet (e.g., Jones et al. 2003). It has also been observed that the selection of spawning areas by adult Arctic grayling can lead to the exposure of eggs to cold or warm water, resulting in reduced or enhanced larval Arctic grayling growth rates, respectively (e.g., Luecke and Mackinnon, 2006). These observations identify the potential to test three discrete hypotheses to explain the growth rates of age-0 Arctic grayling between streams with and without ponds. Need to identify here the basic study design.

The proposed hypotheses to test for growth differences in Arctic grayling between Exposure and Reference Areas are:

1. Water temperature for streams with ponds will be higher through the growing season, and result in higher growth rates of age-0 Arctic grayling compared with streams with no ponds;
2. The landscape features of streams with ponds results in greater numbers of Chironomidae available to age-0 Arctic grayling resulting in higher growth rates compared with streams with no ponds; and
3. The spawning locations (i.e. water flow rates, available substrate, water depth, etc.) selected by adult Arctic grayling differ between streams with ponds and streams that lack ponds. This different selection by Arctic grayling in streams with ponds results in egg incubation times that are dependent on water temperature. Similarly, the water temperature experienced by early age-0 Arctic grayling will also differ between the streams with and without ponds. This hypothesis cannot be completed due to the time constraints resulting from the submission/approval dates required under the EEM.

4.2 Study Design Component

4.2.1 Hypothesis #1 Thermal Influences

4.2.1.1 Water Temperature

It is believed that Fingers Lake, in the Reference Area, provides thermal warming and thus better habitat for age-0 grayling growth. Since the Exposure Area lacks significant lake or ponded water, temperatures should be colder and thus influence age-0 growth. These habitat features, as represented by differing rates of warming and greater thermal holding capacity of ponded water compared with flowing water, indicate why Exposure Arctic grayling are smaller than the Reference Area age-0 fish. Due to the potential that the previously used Reference Area may not be the most appropriate for comparison to the Exposure Area due to differences in ponded water, an Alternative Reference Area will be selected based on the absence of ponded water and the presence of age-0 arctic grayling.

This may also provide insight into a regional variation that may exist in age-0 arctic grayling growth and survival rates (e.g., Deegan *et al.* 1999). To examine water temperature variations, digital logging thermometers (i.e., Hobo Tidbit loggers) will be placed strategically in the field in the Reference, Exposure, and Alternative Reference Areas. The three stream logging temperature locations for each area will include:

- Discharge into the main lake (Contwoyto Lake);
- Midway location between origin and the main lake;
- Origin; and/or,
- Pond stream interface (if present);

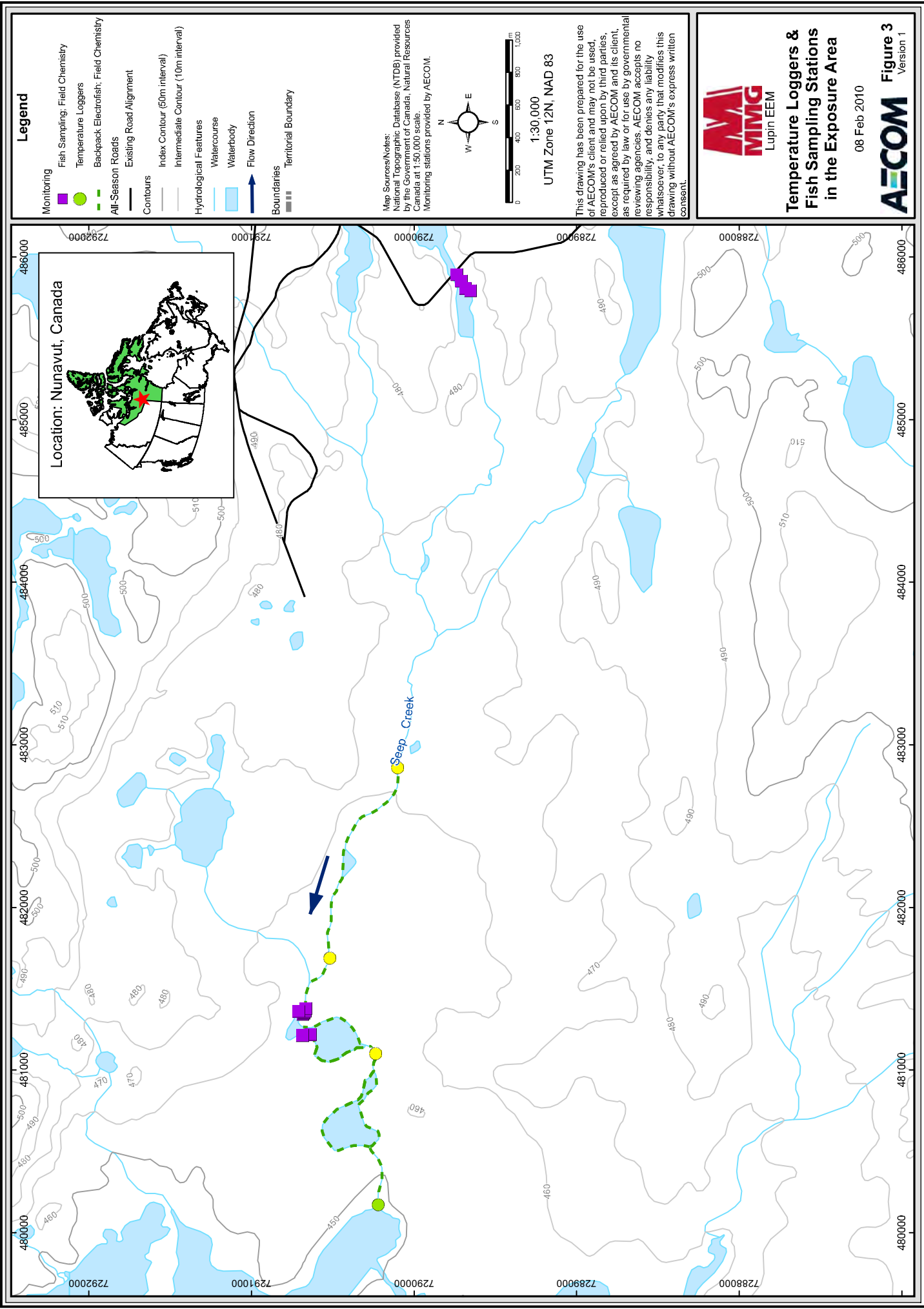
To capture freshet, temperature loggers will be placed in early July 2010 (Figure 3 and 4). It is recognized that this is earlier than the period equal to 6 months after the submission of the Study Design, as required by the MMER. However, this placement is required to fully capture and represent the seasonal variation in water temperature across habitats near Lupin Mine, and to test the thermal hypothesis. No samples other than temperature related to the EEM program will be collected at this time.

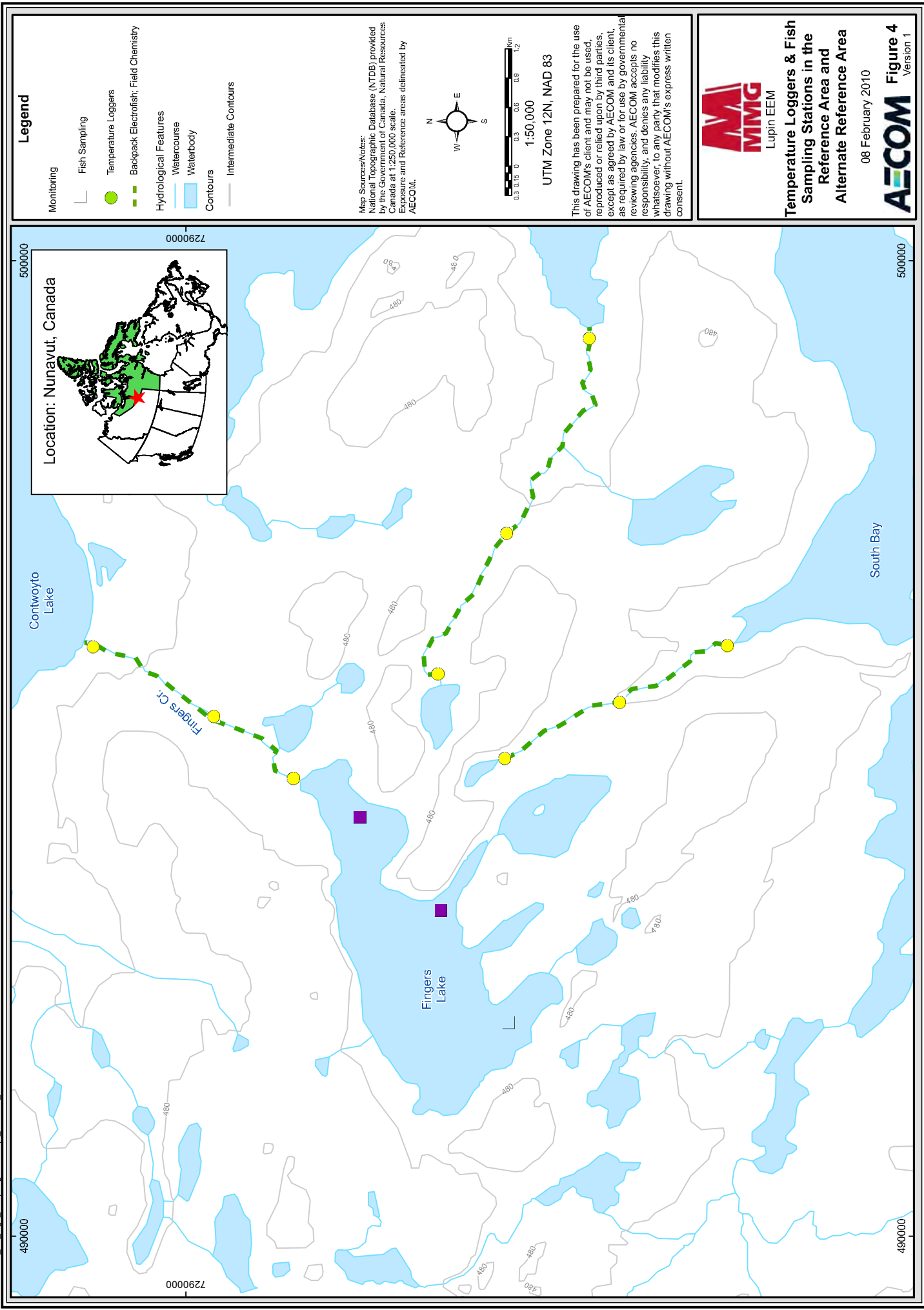
4.2.1.2 Fish Survey

Based on the previous EEM studies, it is proposed to conduct a non lethal fish survey to determine if the differences observed in the previous two cycles are still evident between the Reference and Exposure Areas (Figure 3 and 4). This strategy will allow for analyses to test for correlation between growth and temperature. Data from all three cycles will be used in the analyses. The survey will need to sample and collect no more than 100 age-0 Arctic grayling from the Reference and Exposure Areas used in the previous EEM studies. Since it is hypothesized that the Reference Area from the previous studies may not be the most appropriate system to use (based on the presence of large lake providing increased water temperatures and therefore possible higher temperature-dependent growth rates for age-0 arctic grayling), it is proposed to assess the potential of a more suitable reference stream (i.e. minimal surface area resulting from ponding waters). Reference Areas 2 and 3 (identified in Figure 1) will be surveyed for the presence of Arctic grayling and only one will be used for further investigation. Minnow traps (1.0 cm mesh size) and elector shocking (where safely feasible) will be used to capture fish. A target collection of 100 age-0 Arctic grayling will be needed from each of the Reference (existing), Exposure, and Alternative Reference (new) sampling areas to provide a non-lethal sampling program. Ideally, the sampling will occur in mid to late August. A catch per unit effort for each gear type will be recorded. Fish survey endpoint measurements for statistical analysis will include:

- Length (total, mm);
- Total body weight;

If, for any reason, deviations from the submitted Fish Survey need to be modified as a result of timing of sampling or environmental conditions, consultation with MMG Resources and Environment Canada (EC) will occur prior to any modifications, as directed by the MMER. If, for any reason, the fish survey cannot capture 100 fish from an area, the final number of fish captured will be recorded. The focus of this study is age-0 Arctic grayling. We will use the results of the previous EEM cycles to confirm the ages of the fish used in this study are actually within the age-0 cohort. Given results of the previous cycles, lethal sampling and collection of fish tissue for copper analysis is not recommended.





Detailed habitat characteristics for Reference, Exposure and Alternative Reference Areas will be included in the Cycle 3 Interpretative Report.

QA/QC procedures for the fish survey will follow those outlined within the TGD (EC 2002).

Fish survey to be complete during August 2010.

4.2.2 Hypothesis #2 Benthic Community Structure

As indicated in Section 4.1, the density of Chironomidae and Simuliidae may influence the growth of age-0 Arctic grayling, therefore a benthic community assessment at the Reference, Exposure, and Alternative Reference Areas will be completed and will focus on the densities of Chironomidae. We will focus only on Chironomidae density, as Simuliidae was not identified as a significant benthic taxon in the past EEM studies.

A traditional benthic community survey will be completed. For each study area (Exposure, Reference and Alternate Reference), five sampling stations will be established (Figure 5 and 6). For the Exposure and Reference Areas, the same sampling stations used in the first two EEM programs will again be used. For the Alternate Reference, five new sampling stations will be determined while in the field. Water depth and water flow need to be consistent between sampling stations so these will be measured before the sample is collected. At each sampling station, five replicate samples will be collected (depth between 0.75 and 1.0 m) and combined into one composite sample for the site. Each replicate sample will be collected using a Petit Ponar dredge (6" x 6" x 6"). For each sampling station, the sampling areas will equal 0.116 m². Samples will be sieved (sieve size 243 µm), and preserved with buffered formalin. Samples will be stored in lab-grade glass jars, packed into coolers and shipped to Cordillera Consulting Inc in Summerland, British Columbia (same taxonomist used for Cycle 2).

Supporting environmental data including water depth, water flow, water temperature, field water chemistry (pH, conductivity, dissolved oxygen), lab water quality (Section 4.2.3) will be measured before samples are collected.

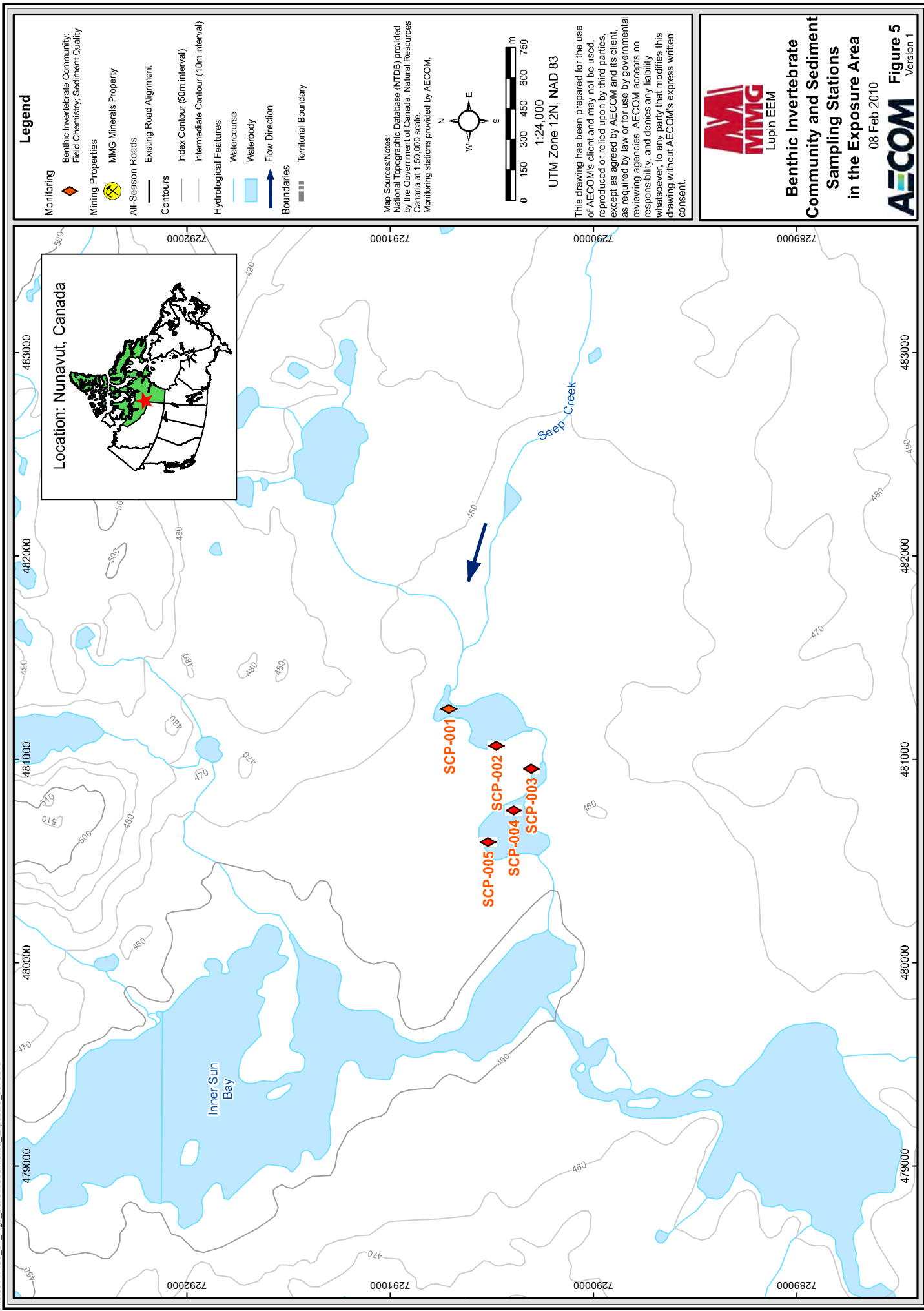
Varied analyses will be used to correlate benthic invertebrate densities with observed growth rates of Arctic grayling from the Reference, Exposure and Alternative Reference Areas. These analyses will also include separate consideration of the Chironomidae density in conjunction with growth rates. Any observed relationships with benthic invertebrate densities or Chironomidae density will be used to explain patterns with growth for the Exposure and both Reference Areas. We hypothesize that higher densities of Chironomidae will be correlated positively with growth (and body condition).

Detailed habitat characteristics for the Control Impact designs for the Reference, Exposure and Alternative Reference Areas are outlined in the Site Characterization Section, and will be supplemented with site-specific attributes described above. Proposed Cycle 3 Sampling locations are identified in Figures 5 and 6.

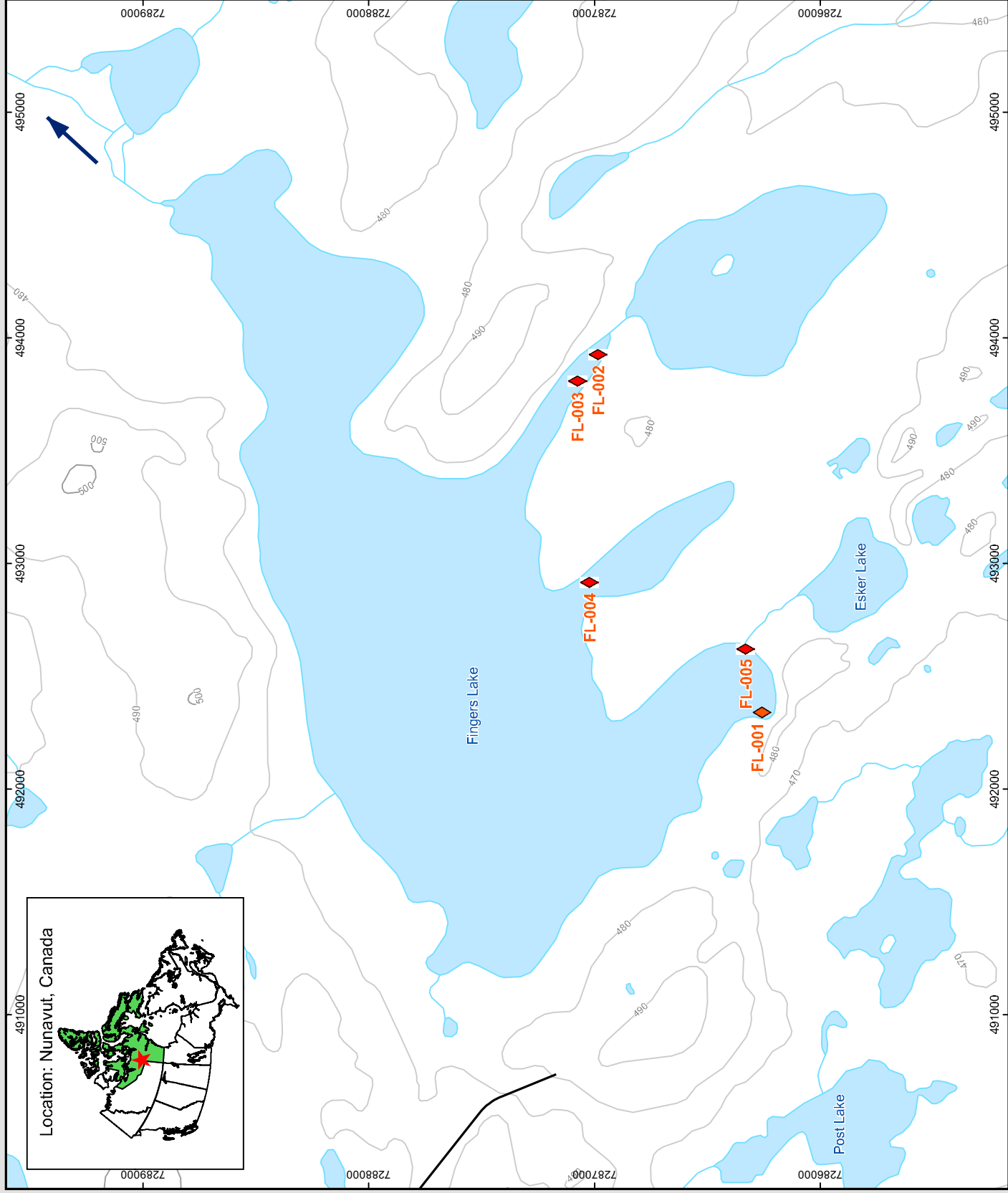
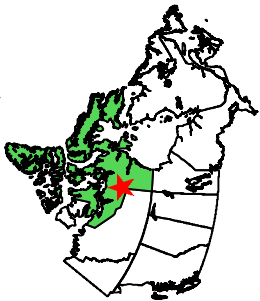
Final endpoints for statistical analysis from the benthic community analysis will include:

- Total invertebrate density*;
- Density of Chironomidae; and,
- Density of Simuliidae (if observed in the 2010 benthic invertebrate surveys)

* used to statistically test for effluent effect on benthic community



Location: Nunavut, Canada



Legend

Monitoring

- Benthic Invertebrate Community; Field Chemistry; Sediment Quality

Mining Properties

- MMG Minerals Property

All-Season Roads

- Existing Road Alignment

Contours

- Index Contour (50m interval)
- Intermediate Contour (10m interval)

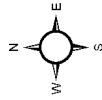
Hydrological Features

- Watercourse
- Waterbody
- Flow Direction

Boundaries

- Territorial Boundary

Map Sources/Notes:
National Topographic Database (NTDB) provided by the Government of Canada, Natural Resources Canada at 1:50,000 scale.
Monitoring stations provided by AECOM.



0 150 300 450 600 750 m

1:24,000
UTM Zone 12N, NAD 83

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**Benthic Invertebrate
Community and Sediment
Quality Sampling Stations
in the Reference Area**

08 Feb 2010

AECOM **Figure 6**
Version 1

4.2.3 Water Quality

As outlined in the TGD (EC 2002), water quality sampling is to be completed in areas of biological sampling. Water quality sampling will take place at the same location of the benthic sampling, prior to the collection of the required sediment samples. Parameters to be measured at each area:

- Arsenic
- Lead
- Zinc
- Total cyanide
- pH
- Cadmium
- Mercury
- Ammonia
- Alkalinity
- Dissolved oxygen
- DOC/TOC
- Phosphorus
- Nitrite
- Copper
- Nickel
- Radium 226
- TSS
- Aluminum
- Iron
- Molybdenum
- Nitrate
- Total Hardness
- Temperature

4.2.4 Sediment Sampling

Sediments will be collected and analyzed for particle size and total organic carbon (TOC) from the Reference, Exposure, and Alternative Reference benthic stations, as recommended in the TGD. Sediment samples will be collected and classified according to the Wentworth Classification.

5. References

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Technical Advisory Panel Review Comments on “Lupin Gold Mine Site Characterization and Cycle 3 Environmental Effects Monitoring Investigation of Cause Study Design Report”

General comments

1. Overall the report was clearly written and well organized. The inclusion of detailed site maps was greatly appreciated.
2. The facility is recommended to proceed with Hypothesis 1 to assess differences in temperature between exposure and two reference sites, provided they focus on grayling condition as an endpoint, and specify the statistical approach that will be used to test the hypothesis.
3. The facility is recommended to remove Hypothesis 2 from the study design. The hypothesis is based on the assumption that grayling in the exposure and reference systems feed preferentially on specific invertebrate taxa (Chironomidae and Simuliidae), and that their growth rates are correlated with the availability of these prey items. In addition, previous results from Phase 2 contradict the hypothesis, where grayling condition was lower in the exposure area despite high densities of chironomids.
4. The facility is recommended to add a study on the potential effect of trace metals in the exposure area on grayling condition. In Phases 1 and 2, trace metal concentrations were shown to be elevated in the exposure area relative to the reference area. In some cases, trace metal concentrations in the exposure area exceeded Canadian Council of Ministers of the Environment (CCME) guidelines for sediment and water quality (CCME 2007). Elsewhere, high trace metal concentrations in the aquatic environment have been associated with decreased condition and other physiological responses in fish (e.g., Woodward et al. 1995; Eastwood and Couture, 2002).
5. The recommended approach for the trace metal study is to conduct a literature review to assess whether or not trace metal concentrations in the water and sediment of the exposure site have been within the range of values that could cause effects in the early life stages of fish. The TAP also recommends a comparison of current trace metal concentrations in fish, water, and sediment samples from exposure and reference sites. Please include a description of field and laboratory methods, and a statistical approach to compare trace metal concentrations between exposure and reference sites.

Previous EEM Studies

6. p. 8. The report states that the effluent had no sublethal or acute effects on test biota; please note that sublethal effects on zooplankton, algae, and a plant species were reported in Phase 1.
7. p. 8. In the summary of the Phase 2 study, it is reported that mean invertebrate density was higher in the exposure area but that the difference was not statistically significant. Please note that the invertebrate density was >2 standard deviations higher in the exposure area, and that the *p*-value determined for that comparison was significant at 0.085, since α was set at 0.1.

8. p. 9. Note that the Phase 2 study found effects on condition in both arctic grayling and ninespine stickleback.

Historical Effluent Characteristics

9. p.10. Table 2 shows effluent discharge data from 1994 to 2009, however the report indicates on p. 2 that effluent discharge began in 1985. Are these earlier discharge data available?

EEM IOC Study design

10. p. 11. The report states that the Investigation of Cause (IOC) study is required to assess the difference in *growth* observed in Age-0 grayling between exposure and reference areas. Note that the IOC study was triggered on grayling condition (weight-at-length). Although condition is related to growth, it is not considered a measure of growth rate, but rather an indicator of energy storage. Please ensure that the proposed hypotheses will address the effect on grayling condition.

Hypothesis 1. Thermal influences

11. p. 12. At what interval will the temperature data loggers record the temperature? Please describe how the data from each area will be integrated, and which metric will be used (e.g., overall average temperature, # of degree days etc.).
12. p. 12. Describe the QA/QC procedures for the temperature data loggers. Will the loggers be checked periodically to ensure that they are functioning properly?
13. p. 12. Will temperature be compared between reference and exposure areas? If so, please describe the statistical test that will be used.
14. p. 12. The facility proposes to test for a correlation between growth in grayling and water temperature. A correlation test does not seem appropriate given that there are only 3 sites. Please describe the statistical approach that will be used to test Hypothesis 1. Also, please confirm that condition will be tested as a fish endpoint.
15. p. 12. The study design proposes a non-lethal survey focused on age-0 grayling, which will be distinguished from other age classes using size class distributions from previous studies. What specific size range will be considered age-0? Will the facility collect ageing structures from a subset of fish to confirm the age of the size range that was sampled?
16. p. 12. Please state the precision of the length and weight measurements for the fish survey (e.g., ± 1 mm, ± 0.01 g?).
17. p. 12. The report states that 'fish survey endpoint measurements for statistical analysis' will include length and total body weight. Please describe in specific terms how condition and growth endpoints will be calculated.
18. p. 12. Please describe how the fish survey will be conducted to avoid recapture of released fish.
19. p. 12. The alternate reference sites appear to have small headwater ponds, raising concerns that they may be ephemeral. Is there any historical information to suggest that these streams will still be flowing during the sampling period (i.e., late Aug.) and that grayling will be present? Are there any other potential reference sites with larger headwater ponds?

20. p. 13. On Figure 3, several fish sampling stations are indicated for Dam1a, adjacent to the Tailings Area. Since exposure to effluent will be greater here than at downstream locations, will the data from these fish be analyzed as a subset, or pooled with the data from the other exposure sites?
21. p. 15. The report states that the fish survey will be completed during August 2010. Please indicate in more specific terms when the proposed field program (fish, sediment, water quality) will be conducted.

Water quality and sediment sampling

22. p. 18. Please describe the method that will be used to collect sediment quality samples.
23. p. 18. Please describe QA/QC procedures for water and sediment sampling and data analysis.

Minor comments and errata

- p. 3. The report indicates that '3 million cubic litres' of effluent were discharged in 2009- please note that this should be cubic *metres*.
- p. 10. The report states that effluent was not released between 2005 and 2009, however Table 2 indicates that effluent was not discharged from 2006 to 2008.
- p. 12. Please ensure that each fish is assessed for external condition (i.e., lesions, tumours, parasites).
- p. 12. If using multiple fish sampling techniques (e.g., electrofishing and minnow traps), please ensure that the methods are used in a consistent manner across all reference and exposure areas to prevent size selection.
- p. 12. Please calculate the mean, median, SD, SE, min. and max. for all fish, water quality and sediment quality measurements.

References

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June 21, 2010

Erik Allen
Regional Environmental Effects Monitoring Coordinator
Prairie and Northern Region
Environment Canada
#200, 4999-98 Avenue
Edmonton, AB T6B 2X3

Dear Mr. Allen:

Project No: 60147160

Regarding: Study Design Addendum for Lupin Cycle 3 Environmental Effects Monitoring Study

On April 29, 2010, the Technical Advisory Panel (TAP) for the Lupin Gold Mine provided comments on the Site Characterization and Cycle 3 Environmental Effects Monitoring (EEM) Investigation of Cause (IOC) study design report. The responses to the comments are provided in this letter that will form an addendum to the February 2010 study design report.

MMG Resources Ltd. (MMG) has retained AECOM to provide environmental services and assist MMG in the execution and completion of the Cycle 2 EEM study at Lupin. Response to comments provided by the TAP on the study design have been prepared by AECOM with assistance from MMG. The comments provided by the TAP are in italics followed by our response, in regular font, to address the comment.

We trust that the following material meets your requirements. If you have any questions or concerns please don't hesitate to call Colleen Prather at 780-486-7041 for clarification

Sincerely,
AECOM Canada Ltd.



Colleen Prather, Ph.D., P.Biol.
Aquatic Scientist
colleen.prather@aecom.com

CP:
cc:
Richard Carson, AECOM
Andrew Mitchell, MMG Resources Inc.

General comments

1. *Overall the report was clearly written and well organized. The inclusion of detailed site maps was greatly appreciated.*

The comment is appreciated.

2. *The facility is recommended to proceed with Hypothesis 1 to assess differences in temperature between exposure and two reference sites, provided they focus on grayling condition as an endpoint, and specify the statistical approach that will be used to test the hypothesis.*

The focus of the 2010 field program will be to collect data to test Hypothesis 1 *“Water temperature for streams with ponds will be higher through the growing season, and result in higher growth rates of age-0 Arctic grayling compared with streams with no ponds”*

Appropriate statistics will be selected to measure for significant differences between areas. If two reference areas are used then statistics will be selected to compare the exposure area to each of the reference areas but also to compare each of the reference areas.

For water quality, sediment quality, supporting environmental variables and fish survey data, basic descriptive statistics including mean, median, standard deviation (SD), standard error (SE), minimum and maximum will be calculated. Depending upon the comparison tested, either t-test or ANOVA will be used to compare the areas. Non-parametric statistics will be used as required by the data. To compare the condition (length to weight ratio) of Arctic grayling between areas, linear regression and ANCOVA will be used to compare the slope of the relationship.

Statistical methods will follow the procedures outlined in the current EEM Technical Guidance Document (EC 2002).

3. *The facility is recommended to remove Hypothesis 2 from the study design. The hypothesis is based on the assumption that grayling in the exposure and reference systems feed preferentially on specific invertebrate taxa (Chironomidae and Simuliidae), and that their growth rates are correlated with the availability of these prey items. In addition, previous results from Phase 2 contradict the hypothesis, where grayling condition was lower in the exposure area despite high densities of chironomids.*

It is acknowledged that testing of this hypothesis will be removed from the study design. The collection and analysis of invertebrate community structure will also be removed from the Cycle 3 study design.

4. *The facility is recommended to add a study on the potential effect of trace metals in the exposure area on grayling condition. In Phases 1 and 2, trace metal concentrations were shown to be elevated in the exposure area relative to the reference area. In some cases, trace metal concentrations in the exposure area exceeded Canadian Council of Ministers of the Environment (CCME) guidelines for sediment and water quality (CCME 2007). Elsewhere, high trace metal concentrations in the aquatic environment have been*

associated with decreased condition and other physiological responses in fish (e.g., Woodward et al. 1995; Eastwood and Couture, 2002).

A desktop, literature review study on the relationships between trace metal concentrations in water, sediment and tissue of Arctic grayling will be investigated. In particular, the focus will be on those sediment quality parameters that were significantly higher in the exposure area versus the reference area (arsenic, cobalt, copper, nickel and zinc).

5. *The recommended approach for the trace metal study is to conduct a literature review to assess whether or not trace metal concentrations in the water and sediment of the exposure site have been within the range of values that could cause effects in the early life stages of fish. The TAP also recommends a comparison of current trace metal concentrations in fish, water, and sediment samples from exposure and reference sites. Please include a description of field and laboratory methods, and a statistical approach to compare trace metal concentrations between exposure and reference sites.*

A desktop study will be conducted to investigate whether exposure to trace metal concentrations in the early life stages of fish could cause a difference in the condition of Arctic grayling in particular but in other fish in general. Results of this study will be included in the Cycle 3 report.

Previous EEM Studies

6. *p. 8. The report states that the effluent had no sublethal or acute effects on test biota; please note that sublethal effects on zooplankton, algae, and a plant species were reported in Phase 1.*

Effluent release from this facility has not been on a regular cycle. Treated effluent was released during the Cycle 1 study but not during the Cycle 2 study thus effluent was not collected and tested for toxicity. It is noted that the Cycle 1 study observed sublethal effects on zooplankton, algae and a plant species. The statement of no effect of effluent on test biota will be revised in the Cycle 3 report.

7. *p. 8. In the summary of the Phase 2 study, it is reported that mean invertebrate density was higher in the exposure area but that the difference was not statistically significant. Please note that the invertebrate density was >2 standard deviations higher in the exposure area, and that the p-value determined for that comparison was significant at 0.085, since α was set at 0.1.*

This comment is noted however the inter-sample variability is quite high and additional calculations suggest that a larger sample size would be required to detect statistical differences at power of 0.9. In addition the opposite trend was noted from the Cycle 1 study (i.e., density was higher in the reference area as compared to the exposure area).

8. p. 9. Note that the Phase 2 study found effects on condition in both arctic grayling and ninespine stickleback.

This error is noted. It should state that condition of both Arctic grayling and Ninespine stickleback differed significantly between areas and that for both species, individuals of a given length weighed more in the reference area as compared to the exposure area.

Historical Effluent Characteristics

9. p. 10. Table 2 shows effluent discharge data from 1994 to 2009, however the report indicates on p. 2 that effluent discharge began in 1985. Are these earlier discharge data available?

Data from 1994 to 2009 was made available for preparation of this study and the previous two reports. A search of the historical records will be necessary to find data and information on treated effluent discharges between 1985 and 1993. This request will be submitted and if the data are available Table 2 from this study design will be updated for the Cycle 3 report.

EEM IOC Study design

10. p. 11. The report states that the Investigation of Cause (IOC) study is required to assess the difference in growth observed in Age-0 grayling between exposure and reference areas. Note that the IOC study was triggered on grayling condition (weight-at-length). Although condition is related to growth, it is not considered a measure of growth rate, but rather an indicator of energy storage. Please ensure that the proposed hypotheses will address the effect on grayling condition.

The comment is noted. The IOC will focus on determining causes for differences in condition of Arctic grayling between the exposure and reference areas.

Hypothesis 1. Thermal influences

11. p. 12. At what interval will the temperature data loggers record the temperature? Please describe how the data from each area will be integrated, and which metric will be used (e.g., overall average temperature, # of degree days etc.).

Data loggers will be set to record water temperature every half hour. Data for each station will be kept independent unless it is reasonable to combine data from different stations. It is proposed to calculate statistics for daily average temperature, overall average temperature, cumulative degree days and frequency of data in different temperature categories.

12. p. 12. Describe the QA/QC procedures for the temperature data loggers. Will the loggers be checked periodically to ensure that they are functioning properly?

It is proposed to install the data loggers in early July (approximately July 5 to 6). Data loggers will be installed on day 1 and then checked on day 2 to make sure they are functioning. Data loggers will be removed at the end of the field survey in August (approximately August 28 to 29). Lupin is a remote site and staff may not always be on site. If possible, it is recommended that someone working at Lupin for another project checks the data loggers every 7 to 14 days.

- 13.** *p. 12. Will temperature be compared between reference and exposure areas? If so, please describe the statistical test that will be used.*

The purpose is to determine whether temperature is a factor that could significantly influence condition of Arctic grayling. It is proposed to compare temperature between areas but also as a factor that may influence condition. Basic statistics such as t-test or ANOVA will be used to compare the temperature metric between exposure-reference areas and between exposure-reference A-reference B areas.

- 14.** *p. 12. The facility proposes to test for a correlation between growth in grayling and water temperature. A correlation test does not seem appropriate given that there are only 3 sites. Please describe the statistical approach that will be used to test Hypothesis 1. Also, please confirm that condition will be tested as a fish endpoint.*

Condition will be tested as an endpoint using the standard EEM approach of linear regression and ANCOVA. ANOVA will be used to test for differences in the various statistics of water temperature between areas.

- 15.** *p. 12. The study design proposes a non-lethal survey focused on age-0 grayling, which will be distinguished from other age classes using size class distributions from previous studies. What specific size range will be considered age-0? Will the facility collect ageing structures from a subset of fish to confirm the age of the size range that was sampled?*

A non-lethal sampling program is the desired approach. Based on the aging structure collected in the last study it appears there is a clear distinction between age class and size range. There were two distinct outliers in age class 1 (exposure area fish) and age class 2 (reference area fish). The upper end of age class 2 (reference area fish) overlaps slightly with the lower end of age class 3 (exposure area fish). To ensure correlation between 2008 and 2010 data, a subset of fish will be sacrificed for the collection of aging structures. A subset of fish (n=10) from each area in the age 0 size class range will be selected for the collection of aging structures.

Results of the age determination from the cycle 2 study are as follows:

Age Class	Number of Fish (excluding outlier)	Fork Length Range (cm) (excluding outlier)	Number of Outliers (Length)
0	84	4.2 – 8.3	0
1	22	9.9 – 13.3	1 (6.7)
2	38	15.4 – 19	1 (13.9)
3	2	18.8 – 22	0

- 16.** *p. 12. Please state the precision of the length and weight measurements for the fish survey (e.g., ± 1 mm, ± 0.01 g?).*

The length measurement precision will be ± 1 mm the weight measurement precision will be ± 0.01 g.

- 17. p. 12.** *The report states that 'fish survey endpoint measurements for statistical analysis' will include length and total body weight. Please describe in specific terms how condition and growth endpoints will be calculated.*

As fish are captured during the fishing survey they will be placed into a bucket. Fish will be kept in the bucket for no longer than 30 minutes before being weighed, measured and released back to the stream. Fish troughs will be used for length measurements to within 1 mm, while whole body weights will be measured with an Acculab VI-200 balance (accuracy 0.01 g). All measurements will be recorded on standardized data forms.

Condition will be calculated as the relationship between fork length and body weight.

- 18. p. 12.** *Please describe how the fish survey will be conducted to avoid recapture of released fish.*

Fishing will be conducting in an upstream direction. As fish as caught they will be retained in a bucket. Periodically, fishing will cease and measurements of fish size and external condition will be noted. After measurements are taken, fish will be released at a location approximately 100 m downstream. This will minimize the potential to recapture previously surveyed fish.

- 19. p. 12.** *The alternate reference sites appear to have small headwater ponds, raising concerns that they may be ephemeral. Is there any historical information to suggest that these streams will still be flowing during the sampling period (i.e., late Aug.) and that grayling will be present? Are there any other potential reference sites with larger headwater ponds?*

The comment is noted. At this point there is no available data on other potential reference areas and a new reference area will need to be selected while on-site in early July. The intention of an alternative reference area is to find one that is not significantly dominated by a large pond. In addition, the new reference area should be close to the study area to minimize geochemical differences between areas.

- 20. p. 13.** *On Figure 3, several fish sampling stations are indicated for Dam1a, adjacent to the Tailings Area. Since exposure to effluent will be greater here than at downstream locations, will the data from these fish be analyzed as a subset, or pooled with the data from the other exposure sites?*

For the previous two EEM programs, fish from throughout the exposure area have been pooled and used to determine statistical differences between areas. For the Cycle 3 study it is proposed to pool the data in a similar manner however, field data will be recorded such that data subsets can be compared. In addition, field notes from the Cycle 2 study will be reviewed to determine if subsets of data can be extracted and compared.

21. p. 15. *The report states that the fish survey will be completed during August 2010. Please indicate in more specific terms when the proposed field program (fish, sediment, water quality) will be conducted.*

The field program is scheduled for August 16 to 30, 2010. The reference areas will be sampled first for fish, water and sediments followed by the exposure area.

Water quality and sediment sampling

22. p. 18. *Please describe the method that will be used to collect sediment quality samples.*

It is proposed to use an Ekman or Petit Ponar dredge to collect composite sediment samples. Three grabs will be collected at each location and combined to form a single composite sample representative of the sampling station. In the 2008 field program, it was attempted to use a core sampler tube to collect the sediment samples but the substrate composition was too sandy and samples would not stay in the tubes. All samples from 2008 were collected using a dredge sampler.

23. p. 18. *Please describe QA/QC procedures for water and sediment sampling and data analysis.*

We will follow standard QA/QC procedures for sample collection, data entry and data analysis. Nitrile gloves will be used during sample collection. Sample containers will be labelled immediately before sample collection and the inside of the bottles/jars will not be touched. One water and one sediment field replicate will be collected. These will be submitted as blind samples to the lab. Once back in the office data recorded on field sheets will be entered into spreadsheets or field memos. A check of at least 10% of the entries will be checked for accuracy. Standard procedures will be followed for data analysis including using data from the final checked spreadsheets, recording data analysis steps taken and repeating the data analysis steps. Statistics will be calculated using a statistics software package such as Statistica or Systat.

Minor comments and errata

- p. 3. *The report indicates that '3 million cubic litres' of effluent were discharged in 2009- please note that this should be cubic metres.*

The error is noted and the correction has been made.

- p. 10. *The report states that effluent was not released between 2005 and 2009, however Table 2 indicates that effluent was not discharged from 2006 to 2008.*

The error is noted and the correction has been made. Effluent was released in 2005 and not in 2006.

- p. 12. *Please ensure that each fish is assessed for external condition (i.e., lesions, tumours, parasites).*

The omission is noted and has been added to the study design. Comments on external condition will be noted on field data sheets.

p. 12. If using multiple fish sampling techniques (e.g., electrofishing and minnow traps), please ensure that the methods are used in a consistent manner across all reference and exposure areas to prevent size selection.

It is the intention of this field program to use all fish sampling methods equally in all areas. Effort, in terms of hours, will be recorded for each sampling method. As was done for the Cycle 2 report, total fishing effort by species will be calculated for the Cycle 3 report.

p. 12. Please calculate the mean, median, SD, SE, min. and max. for all fish, water quality and sediment quality measurements.

Basic descriptive statistics including mean, median, SD, SE, min and max will be calculated for water quality, sediment quality and fish survey results. Comparisons will be made between areas.

References

- CCME. 2007. Canadian Environmental Quality Guidelines. Update 7.1. Canadian Council of Ministers of the Environment. <http://ceqg-rcqe.ccme.ca/>.
- Eastwood, S. and Couture, P. 2002. Seasonal variations in condition and liver metal concentrations of yellow perch (*Perca flavescens*) from a metal-contaminated environment. *Aquatic Toxicology*. 58: 43-56.
- Woodward, D.F., Farag, A.M., Bergman, H.L., DeLonay, A.J., Little, E.E., Smith, C.E., and Barrows, F.T. 1995. Metals-contaminated benthic invertebrates in the Clark Fork River, Montana: effects on age-0 brown trout and rainbow trout. *Canadian Journal of Fisheries and Aquatic Sciences*. 52: 1994-2004.

July 27, 2010

Erik Allen
Regional Environmental Effects Monitoring Coordinator
Prairie and Northern Region
Environment Canada
#200, 4999-98 Avenue
Edmonton, AB T6B 2X3

Dear Mr. Allen:

Project No: 60147160

Regarding: Study Design Addendum for Lupin Cycle 3 Environmental Effects Monitoring Study

On July 26, 2010, the Technical Advisory Panel (TAP) for the Lupin Gold Mine provided comments on the Site Characterization and Cycle 3 Environmental Effects Monitoring (EEM) Investigation of Cause (IOC) study design report addendum issued June 21, 2010. Additional information was requested on comments 4, 5, 15, 21, 22 and 23 from the April 29, 2010 TAP list of comments. Additional information to address these 6 comments are provided in this letter that will form an addendum to the February 2010 study design report and the addendum issued in June.

MMG Resources Ltd. (MMG) has retained AECOM to provide environmental services and assist MMG in the execution and completion of the Cycle 2 EEM study at Lupin. Response to comments provided by the TAP on the study design have been prepared by AECOM with assistance from MMG. The comments provided by the TAP are in italics followed by our response, in regular font, to address the comment. The initial response provided in June is provided followed by additional information to address outstanding concerns.

We trust that the following material meets your requirements. If you have any questions or concerns please don't hesitate to call Colleen Prather at 780-486-7041 for clarification

Sincerely,
AECOM Canada Ltd.



Colleen Prather, Ph.D., P.Biol.
Aquatic Scientist
colleen.prather@aecom.com

cc:
Richard Carson, AECOM
Andrew Mitchell, MMG Resources Inc.

4. *The facility is recommended to add a study on the potential effect of trace metals in the exposure area on grayling condition. In Phases 1 and 2, trace metal concentrations were shown to be elevated in the exposure area relative to the reference area. In some cases, trace metal concentrations in the exposure area exceeded Canadian Council of Ministers of the Environment (CCME) guidelines for sediment and water quality (CCME 2007). Elsewhere, high trace metal concentrations in the aquatic environment have been associated with decreased condition and other physiological responses in fish (e.g., Woodward et al. 1995; Eastwood and Couture, 2002).*

Initial Response:

A desktop, literature review study on the relationships between trace metal concentrations in water, sediment and tissue of Arctic grayling will be investigated. In particular, the focus will be on those sediment quality parameters that were significantly higher in the exposure area versus the reference area (arsenic, cobalt, copper, nickel and zinc).

Additional Comment:

The TAP recommends expanding the literature review beyond Arctic grayling since there may be a limited number of studies on this fish species in the literature.

This comment is noted and the literature review will be conducted on Arctic grayling but other fish species to understand the potential effects on fish development of exposure to trace metals.

5. *The recommended approach for the trace metal study is to conduct a literature review to assess whether or not trace metal concentrations in the water and sediment of the exposure site have been within the range of values that could cause effects in the early life stages of fish. The TAP also recommends a comparison of current trace metal concentrations in fish, water, and sediment samples from exposure and reference sites. Please include a description of field and laboratory methods, and a statistical approach to compare trace metal concentrations between exposure and reference sites.*

Initial Response:

A desktop study will be conducted to investigate whether exposure to trace metal concentrations in the early life stages of fish could cause a difference in the condition of Arctic grayling in particular but in other fish in general. Results of this study will be included in the Cycle 3 report.

Additional Comment:

The TAP recommends that the Phase 3 study design include the analysis of trace metal concentrations in Arctic grayling.

The comment is noted. Based on the pre-design and Cycle 1 report it was determined that copper was the metal parameter of concern. For the Cycle 1 study, livers were taken from the fish (Arctic grayling), combined to form a composite sample (due to small size and weight of individual livers) and analyzed for copper concentration. Whole fish samples were also retained but were not analyzed. In Cycle 2, it was again observed that the livers were very small and only whole fish (heads removed) were submitted for analysis. Concentration of copper in whole fish tissue did not differ significantly between areas.

The initial intention of the Cycle 3 program was to design a non-lethal sampling program. Recommendations were made by the TAP to include analysis of aging structures so that physical growth measurements of fish from Cycle 3 can be compared more directly to those obtained in Cycle 2. As a result of this it was decided to collect scales and otoliths as aging structures. It was decided to sacrifice a subset of fish from each area for collection of otoliths (maximum of 20 per area). Since a maximum of 20 fish per area will be sacrificed for collection of otoliths these same fish can be used for analysis of copper concentration of whole fish samples (heads removed). Based on the results of the Cycle 1 study it is known that between 11 and 19 fish livers are required by the lab. Due to the requirement of a large number of livers to make up one sample, it is suggested to analyze whole fish samples.

For this study, 10 Arctic grayling young-of-the-year fish (whole fish, heads removed) from each of the three areas will be submitted for analysis of copper concentration. It is proposed to submit fish with similar length and weight measurements.

15. p. 12. The study design proposes a non-lethal survey focused on age-0 grayling, which will be distinguished from other age classes using size class distributions from previous studies. What specific size range will be considered age-0? Will the facility collect ageing structures from a subset of fish to confirm the age of the size range that was sampled?

Initial Response:

A non-lethal sampling program is the desired approach. Based on the aging structure collected in the last study it appears there is a clear distinction between age class and size range. There were two distinct outliers in age class 1 (exposure area fish) and age class 2 (reference area fish). The upper end of age class 2 (reference area fish) overlaps slightly with the lower end of age class 3 (exposure area fish). To ensure correlation between 2008 and 2010 data, a subset of fish will be sacrificed for the collection of aging structures. A subset of fish (n=10) from each area in the age 0 size class range will be selected for the collection of aging structures.

Results of the age determination from the cycle 2 study are as follows:

Age Class	Number of Fish (excluding outlier)	Fork Length Range (cm) (excluding outlier)	Number of Outliers (Length)
0	84	4.2 – 8.3	0
1	22	9.9 – 13.3	1 (6.7)
2	38	15.4 – 19	1 (13.9)
3	2	18.8 – 22	0

Additional Comment:

Please specify which ageing structures will be collected. The TAP also recommends collecting scales from older fish to provide additional ageing information.

In the Cycle 2 study, both scales and otoliths were collected and submitted for ageing analysis. It is recognized that young-of-the-year fish may not have scales developed for ageing analysis. It is proposed to collect primarily otoliths but also scales for ageing structures. As stated in the study design, at least 100 fish will be surveyed for non-lethal parameters but a subset will be sacrificed for collection of ageing structures and now for analysis of copper concentration in whole fish tissue samples. From each sampling area, it is the intention to retain at least 10 fish in the age class 0 fork length range (4.2 to 8.3 cm) and then another 10 fish in the other 3 size classes for collection of ageing structures. All sacrificed fish will be retained but only those in the class 0 length range will be submitted for analysis of copper in the tissue. The other fish will be retained and archived and analyzed if necessary.

21. p. 15. *The report states that the fish survey will be completed during August 2010. Please indicate in more specific terms when the proposed field program (fish, sediment, water quality) will be conducted.*

Initial Response:

The field program is scheduled for August 16 to 30, 2010. The reference areas will be sampled first for fish, water and sediments followed by the exposure area.

Additional Comment:

Please confirm that the facility intends to measure metal concentrations in sediment samples.

To clarify, it is the intention to submit sediment samples for the same parameters analyzed in the Cycle 2 study. Each sediment sample will be submitted for analysis of:

- Physical parameters (grain size)
- Total Organic Carbon
- Total Metals

22. p. 18. *Please describe the method that will be used to collect sediment quality samples.*

Initial Response:

It is proposed to use an Ekman or Petit Ponar dredge to collect composite sediment samples. Three grabs will be collected at each location and combined to form a single composite sample representative of the sampling station. In the 2008 field program, it was attempted to use a core sampler tube to collect the sediment samples but the substrate composition was too sandy and samples would not stay in the tubes. All samples from 2008 were collected using a dredge sampler.

Additional Comment:

The TAP recommends that the facility identify an alternative sediment sampling method to ensure that the sediment samples are collected at a consistent depth.

In the Cycle 2 study, two sampling methods were used: a 63 mm core sampler and a Petit Ponar. The core sampler did not work because the sediment samples would not stay in the tube. So sediment samples were obtained with the Petit Ponar.

In the Cycle 2 program, sediments were collected in water depth of 0.5 to 0.9 m (exposure area) and 0.7 to 1.2 m (reference area). The focus of the Cycle 3 program will be to sample sediments from water depth between 0.5 to 1 m in depth. If the main concern of the TAP is water depth, then it will be confirmed before sediment samples are taken. In addition, we will investigate other sediment sampling methods and have two different types of sampling equipment on site.

23. p. 18. Please describe QA/QC procedures for water and sediment sampling and data analysis.

Initial Response:

We will follow standard QA/QC procedures for sample collection, data entry and data analysis. Nitrile gloves will be used during sample collection. Sample containers will be labelled immediately before sample collection and the inside of the bottles/jars will not be touched. One water and one sediment field replicate will be collected. These will be submitted as blind samples to the lab. Once back in the office data recorded on field sheets will be entered into spreadsheets or field memos. A check of at least 10% of the entries will be checked for accuracy. Standard procedures will be followed for data analysis including using data from the final checked spreadsheets, recording data analysis steps taken and repeating the data analysis steps. Statistics will be calculated using a statistics software package such as Statistica or Systat.

Additional Comment:

Please note that the Metal Mining EEM Technical Guidance Document also recommends the collection of field and trip blanks for QA/QC purposes.

The comment is noted. It is AECOM practice to collect QA/QC samples at a minimum of 10% of test samples. For this program, both a field and trip blank QA/QC sample will be collected.

Technical Advisory Panel comments on the Study Design Addendum for the Lupin Phase 3 EEM study

Thank you for your response to the Technical Advisory Panel (TAP) review comments on the Phase 3 EEM study design for Lupin mine. The TAP has reviewed the study design addendum, and would like the facility to further address the following comments:

Comment #4. The TAP appreciates that the facility has proposed to conduct a literature review study on the relationships between trace metals in water, sediment and tissue of Arctic grayling, with a focus on sediment quality parameters that were significantly higher in the exposure area vs. the reference area. **The TAP recommends expanding the literature review beyond Arctic grayling, since there may be a limited number of studies on this fish species in the literature.**

Comment #5. The facility has proposed to conduct a desktop study to investigate whether exposure to trace metals in early life stages of fish could cause a difference in condition of Arctic grayling. The TAP had recommended trace metal analysis of fish tissue, water, and sediment as part of the current study. Analysis of metal concentrations in fish tissue would serve to establish the bioavailability of trace metals in the exposure and reference areas, and allow for a comparison to threshold metal concentrations reported in the literature. The TAP is concerned that the proposed study design will not assess metal exposure in grayling, and will not provide the information necessary to determine if metal concentrations are sufficient to cause effects. **The TAP recommends that the Phase 3 study design include the analysis of trace metal concentrations in Arctic grayling.**

Comment #15. The TAP appreciates that the facility has proposed to collect a subset of Age 0 fish for ageing structures for each area. Possible ageing structures for grayling include scales (non-lethal), sagittal otoliths (lethal) and pectoral fin rays (non-lethal), however note that scale formation may not occur in Age-0 fish. **Please specify which ageing structures will be collected. The TAP also recommends collecting scales from older fish to provide additional ageing information.**

Comment #21. The facility has provided a schedule for the fish, water, and sediment sampling. **Please confirm that the facility intends to measure metal concentrations in sediment samples.**

Comment #22. Regarding the collection of sediment samples, the facility reports that previous attempts to use a sediment corer on site have been unsuccessful. The TAP is concerned that the use of an Ekman or Petit Ponar dredge will make it difficult to quantify the depth of the sediment samples, and to ensure consistency among sites. An approach used at other sites where corers are not feasible is to sub-sample the top few centimetres of the dredged sample. **The TAP recommends that the facility identify an alternative sediment sampling method to ensure that the sediment samples are collected at a consistent depth.**

Comment #23. The facility has proposed to collect field replicates for water samples. **Please note that the Metal Mining EEM Technical Guidance Document also recommends the collection of field and trip blanks for QA/QC purposes.**

Prairie & Northern
Environmental Protection Operations
Environment Canada
Room 200, 4999-98th Avenue NW
Edmonton, AB T6B 2X3

August 3, 2010

File: 7834-3-37/M111-1

Andrew Mitchell
Development Manager
Minerals and Metals Group Resources Inc.
200-1159 Alloy Drive
Thunder Bay, ON
P7B 6M8

Dear Mr. Mitchell:

Subject: Metal Mining Effluent Regulations – Evaluation of Phase 3 Environmental Effects Monitoring (EEM) Study Design – Lupin Mine, Nunavut

This letter is to advise you that the Phase 3 EEM Study Design for Lupin Mine has been evaluated and meets the requirements specified in Schedule 5 of the Metal Mining Effluent Regulations (MMER) for environmental effects monitoring studies. The evaluation of this proposed study is based on the Technical Advisory Panel's (TAP) review of the Minerals and Metals Group Resources Inc. Study Design entitled '*Lupin Gold Mine Site Characterization and Cycle 3 Environmental Effects Monitoring Investigation of Cause Study Design Report*', submitted February 10, 2010, the addendum to the Study Design entitled, '*Study Design Addendum for Lupin Cycle 3 Environmental Effects Monitoring Study*', received June 21, 2010, and subsequent email correspondence (Colleen Prather to Erik Allen and Andrew Mitchell, copied to Richard Carson, July 27, 2010; and Colleen Prather to Erik Allen, copied to Andrew Mitchell and Tiffany Hnatiuk, July 29, 2010).

It is my understanding that the facility will remain in contact with the TAP during field work, and that the TAP will be consulted on field decisions such as sentinel species selection, sample sizes, and study areas.

If you have any questions please do not hesitate to contact the EEM Coordinator for this facility, Erik Allen (Email: erik.allen@ec.gc.ca, Tel: 780-951-8750, Fax: 780-495-2444).

Sincerely,

Cheryl Baraniecki
MMER Authorization Officer

cc:

Erik Allen
Margaret Fairbairn
Paula Siwik

Environment Canada, Edmonton
Environment Canada, Edmonton
Environment Canada, Edmonton

Chris Baron
Dionne Filiatrault
David Hohnstein
Ian Parsons
Anne Wilson
Chad Harden

Fisheries and Oceans Canada, Winnipeg
Nunavut Water Board, Gjoa Haven
Nunavut Water Board, Edmonton
Indian and Northern Affairs Canada, Iqaluit
Environment Canada, Yellowknife
Environment Canada, Yellowknife

Appendix E

Lupin Cycle 3 EEM Program Laboratory Results



AECOM CANADA LTD.
ATTN: COLLEEN PRATHER
17007 107 AVE NW
EDMONTON AB T5S 1G3
Phone: 780-486-7000

Date Received: 23-AUG-10
Report Date: 12-NOV-10 14:01 (MT)
Version: FINAL REV. 2

Certificate of Analysis

Lab Work Order #: L923262
Project P.O. #: NOT SUBMITTED
Job Reference: 60147160
Legal Site Desc:
C of C Numbers: 10-062781

Comments: ADDITIONAL 12-NOV-10 11:36
ADDITIONAL 12-NOV-10 11:36

12-NOV-10: Revised for the addition of Sr, Fe, Al for the sediments

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LIMITED Part of the ALS Group A Campbell Brothers Limited Company

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-1 FL3 (REF AREA#1,SURFACE WATER)								
Sampled By: TH/SW on 21-AUG-10 @ 11:30								
Matrix: WATER								
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		0.00610		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		0.00150		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		0.00165		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0030		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		0.880		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		<0.00060		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00097		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		0.520		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		0.00259		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		0.000476		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		0.388		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		0.441		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		0.00494		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		0.00012		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		0.00110		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		0.0220		0.0050	mg/L		31-AUG-10	R1454830
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		0.0384		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		0.0133		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total		0.00171		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total		0.00153		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total		0.0025		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total		0.856		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total		0.000069		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total		<0.00060		0.00060				

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-1	FL3 (REF AREA#1,SURFACE WATER)							
Sampled By:	TH/SW on 21-AUG-10 @ 11:30							
Matrix:	WATER							
Metals in Water by ICPMS (Undigested)								
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628	
Nickel (Ni)-Total	0.000504		0.000060	mg/L		21-SEP-10	R1474628	
Potassium (K)-Total	0.386		0.020	mg/L		21-SEP-10	R1474628	
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628	
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628	
Sodium (Na)-Total	0.474		0.0050	mg/L		21-SEP-10	R1474628	
Strontium (Sr)-Total	0.00472		0.00010	mg/L		21-SEP-10	R1474628	
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628	
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628	
Titanium (Ti)-Total	0.00034		0.00010	mg/L		21-SEP-10	R1474628	
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628	
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628	
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		21-SEP-10	R1474628	
Miscellaneous Parameters								
Ammonia-N	<0.0050		0.0050	mg/L		01-SEP-10	R1455811	
Cyanide, Total	<0.0020		0.0020	mg/L		30-AUG-10	R1454125	
Cadmium (Cd)-Dissolved	<0.00001		0.000010	mg/L		21-SEP-10	R1474628	
Dissolved Organic Carbon	3.1		1.0	mg/L		08-SEP-10	R1460765	
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		17-SEP-10	R1470116	
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		17-SEP-10	R1470116	
Phosphorus, Total	<0.0010		0.0010	mg/L		20-SEP-10	R1471865	
Radium-226	See Attached					09-SEP-10	R1461591	
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L		20-SEP-10	R1472084	
Total Organic Carbon	3.3		1.0	mg/L		08-SEP-10	R1460765	
Total Suspended Solids	<3.0		3.0	mg/L		25-AUG-10	R1449362	
Routine Water Analysis - Low Level								
Chloride by IC								
Chloride (Cl)	<0.50		0.50	mg/L		25-AUG-10	R1449889	
Diss. Metals in Water by ICPOES (Low)								
Calcium (Ca)-Dissolved	0.83		0.50	mg/L		31-AUG-10	R1454830	
Magnesium (Mg)-Dissolved	0.46		0.10	mg/L		31-AUG-10	R1454830	
Potassium (K)-Dissolved	0.46		0.10	mg/L		31-AUG-10	R1454830	
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		31-AUG-10	R1454830	
Fluoride by IC								
Fluoride (F)	<0.050		0.050	mg/L		25-AUG-10	R1449889	
Ion Balance Calculation								
Ion Balance	Low EC			%		01-SEP-10		
TDS (Calculated)	4.2			mg/L		01-SEP-10		
Hardness (as CaCO3)	4.0			mg/L		01-SEP-10		
Nitrate+Nitrite-N								
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		24-AUG-10	R1449025	
Nitrate-N								
Nitrate-N	<0.0060		0.0060	mg/L		24-AUG-10	R1449025	
Nitrite-N								
Nitrite-N	<0.0020		0.0020	mg/L		24-AUG-10	R1449025	
Sulfate by IC (Low Level)								
Sulfate (SO4)	2.49		0.050	mg/L		25-AUG-10	R1449889	
pH, Conductivity and Total Alkalinity								
pH	6.78		0.10	pH		24-AUG-10	R1447827	
Conductivity (EC)	11.5		0.20	uS/cm		24-AUG-10	R1447827	
Bicarbonate (HCO3)	5.1		5.0	mg/L		24-AUG-10	R1447827	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-2 FL5 (REF AREA#1,SURFACE WATER) Sampled By: TH/SW on 21-AUG-10 @ 10:30 Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Calcium (Ca)-Total	0.781		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total	0.000130		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	<0.00060		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00115		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	0.539		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	0.00352		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.000526		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	0.410		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	0.443		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.00476		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	0.00090		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	0.000106		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	<0.0050		0.0050	mg/L		01-SEP-10	R1455811
Cyanide, Total	<0.0020		0.0020	mg/L	30-AUG-10	30-AUG-10	R1454125
Cadmium (Cd)-Dissolved	<0.00001		0.000010	mg/L		21-SEP-10	R1474628
Dissolved Organic Carbon	3.7		1.0	mg/L		08-SEP-10	R1460765
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		17-SEP-10	R1470116
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		17-SEP-10	R1470116
Phosphorus, Total	0.0185		0.0010	mg/L		20-SEP-10	R1471865
Radium-226	See Attached					09-SEP-10	R1461591
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L		17-SEP-10	R1470773
Total Organic Carbon	3.2		1.0	mg/L		08-SEP-10	R1460765
Total Suspended Solids	<3.0		3.0	mg/L		25-AUG-10	R1449362
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		25-AUG-10	R1449889
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	0.81		0.50	mg/L		31-AUG-10	R1454830
Magnesium (Mg)-Dissolved	0.48		0.10	mg/L		31-AUG-10	R1454830
Potassium (K)-Dissolved	0.32		0.10	mg/L		31-AUG-10	R1454830
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		31-AUG-10	R1454830
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		25-AUG-10	R1449889
Ion Balance Calculation							
Ion Balance	Low EC			%		01-SEP-10	
TDS (Calculated)	4.1			mg/L		01-SEP-10	
Hardness (as CaCO3)	4.0			mg/L		01-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		24-AUG-10	R1449025
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		24-AUG-10	R1449025

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-2	FL5 (REF AREA#1,SURFACE WATER)							
Sampled By: TH/SW on 21-AUG-10 @ 10:30								
Matrix: WATER								
Nitrite-N		<0.0020		0.0020	mg/L		24-AUG-10	R1449025
Sulfate by IC (Low Level)								
Sulfate (SO4)		2.49		0.050	mg/L		25-AUG-10	R1449889
pH, Conductivity and Total Alkalinity								
pH		6.75		0.10	pH		24-AUG-10	R1447827
Conductivity (EC)		11.7		0.20	uS/cm		24-AUG-10	R1447827
Bicarbonate (HCO3)		<5.0		5.0	mg/L		24-AUG-10	R1447827
Carbonate (CO3)		<5.0		5.0	mg/L		24-AUG-10	R1447827
Hydroxide (OH)		<5.0		5.0	mg/L		24-AUG-10	R1447827
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		24-AUG-10	R1447827
L923262-3	FL1 (REF AREA #1, SEDIMENT)							
Sampled By: TH/SW on 21-AUG-10 @ 16:00								
Matrix: SEDIMENT								
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	27-AUG-10	27-AUG-10	R1451909
Total Organic Carbon		0.38		0.10	%	27-AUG-10	27-AUG-10	R1451909
CaCO3 Equivalent		<0.80		0.80	%	27-AUG-10	27-AUG-10	R1451909
Total Carbon by combustion method								
Total Carbon by Combustion		0.4		0.1	%	27-AUG-10	27-AUG-10	R1452047
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	31-AUG-10	01-SEP-10	R1456352
Metals in Soil by ICPMS								
Aluminum (Al)		4170		50	mg/kg		01-SEP-10	R1456305
Antimony (Sb)		<0.20		0.20	mg/kg		01-SEP-10	R1456305
Arsenic (As)		11.2		0.20	mg/kg		01-SEP-10	R1456305
Barium (Ba)		32.1		5.0	mg/kg		01-SEP-10	R1456305
Beryllium (Be)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Cadmium (Cd)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Chromium (Cr)		17.7		0.50	mg/kg		01-SEP-10	R1456305
Cobalt (Co)		5.5		1.0	mg/kg		01-SEP-10	R1456305
Copper (Cu)		8.3		2.0	mg/kg		01-SEP-10	R1456305
Iron (Fe)		7550		200	mg/kg		01-SEP-10	R1456305
Lead (Pb)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Molybdenum (Mo)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Nickel (Ni)		12.0		2.0	mg/kg		01-SEP-10	R1456305
Selenium (Se)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Silver (Ag)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Strontium (Sr)		3.5		1.0	mg/kg		01-SEP-10	R1456305
Thallium (Tl)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Tin (Sn)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Uranium (U)		<2.0		2.0	mg/kg		01-SEP-10	R1456305
Vanadium (V)		14.6		1.0	mg/kg		01-SEP-10	R1456305
Zinc (Zn)		18		10	mg/kg		01-SEP-10	R1456305
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		27-AUG-10	R1451744
Particle Size								
% Sand		85.8		1.0	%		09-SEP-10	R1462061
% Silt		12.2		1.0	%		09-SEP-10	R1462061
% Clay		2.0		1.0	%		09-SEP-10	R1462061

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-3	FL1 (REF AREA #1, SEDIMENT)							
Sampled By:	TH/SW on 21-AUG-10 @ 16:00							
Matrix:	SEDIMENT							
Particle Size								
Texture		Sand / Loamy sand					09-SEP-10	R1462061
L923262-4	FL2 (REF AREA #1, SEDIMENT)							
Sampled By:	TH/SW on 21-AUG-10 @ 12:30							
Matrix:	SEDIMENT							
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	27-AUG-10	27-AUG-10	R1451909
Total Organic Carbon		0.54		0.10	%	27-AUG-10	27-AUG-10	R1451909
CaCO3 Equivalent		<0.80		0.80	%	27-AUG-10	27-AUG-10	R1451909
Total Carbon by combustion method								
Total Carbon by Combustion		0.5		0.1	%	27-AUG-10	27-AUG-10	R1452047
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	31-AUG-10	01-SEP-10	R1456352
Metals in Soil by ICPMS								
Aluminum (Al)		4350		50	mg/kg		01-SEP-10	R1456305
Antimony (Sb)		<0.20		0.20	mg/kg		01-SEP-10	R1456305
Arsenic (As)		11.1		0.20	mg/kg		01-SEP-10	R1456305
Barium (Ba)		35.8		5.0	mg/kg		01-SEP-10	R1456305
Beryllium (Be)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Cadmium (Cd)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Chromium (Cr)		17.9		0.50	mg/kg		01-SEP-10	R1456305
Cobalt (Co)		4.9		1.0	mg/kg		01-SEP-10	R1456305
Copper (Cu)		6.8		2.0	mg/kg		01-SEP-10	R1456305
Iron (Fe)		7280		200	mg/kg		01-SEP-10	R1456305
Lead (Pb)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Molybdenum (Mo)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Nickel (Ni)		11.4		2.0	mg/kg		01-SEP-10	R1456305
Selenium (Se)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Silver (Ag)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Strontium (Sr)		4.6		1.0	mg/kg		01-SEP-10	R1456305
Thallium (Tl)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Tin (Sn)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Uranium (U)		<2.0		2.0	mg/kg		01-SEP-10	R1456305
Vanadium (V)		15.2		1.0	mg/kg		01-SEP-10	R1456305
Zinc (Zn)		20		10	mg/kg		01-SEP-10	R1456305
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		27-AUG-10	R1451744
Particle Size								
% Sand		83.4		1.0	%		09-SEP-10	R1462061
% Silt		15.0		1.0	%		09-SEP-10	R1462061
% Clay		1.6		1.0	%		09-SEP-10	R1462061
Texture		Loamy sand					09-SEP-10	R1462061
L923262-5	FL3 (REF AREA #1, SEDIMENT)							
Sampled By:	TH/SW on 21-AUG-10 @ 12:00							
Matrix:	SEDIMENT							
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	27-AUG-10	27-AUG-10	R1451909
Total Organic Carbon		4.96		0.10	%	27-AUG-10	27-AUG-10	R1451909

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-5	FL3 (REF AREA #1, SEDIMENT)							
Sampled By: TH/SW on 21-AUG-10 @ 12:00								
Matrix: SEDIMENT								
Inorganic and Organic Carbon								
CaCO3 Equivalent		<0.80		0.80	%	27-AUG-10	27-AUG-10	R1451909
Total Carbon by combustion method								
Total Carbon by Combustion		5.0		0.1	%	27-AUG-10	27-AUG-10	R1452047
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	31-AUG-10	01-SEP-10	R1456352
Metals in Soil by ICPMS								
Aluminum (Al)		7890		50	mg/kg		01-SEP-10	R1456305
Antimony (Sb)		<0.20		0.20	mg/kg		01-SEP-10	R1456305
Arsenic (As)		24.7		0.20	mg/kg		01-SEP-10	R1456305
Barium (Ba)		47.8		5.0	mg/kg		01-SEP-10	R1456305
Beryllium (Be)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Cadmium (Cd)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Chromium (Cr)		29.1		0.50	mg/kg		01-SEP-10	R1456305
Cobalt (Co)		9.2		1.0	mg/kg		01-SEP-10	R1456305
Copper (Cu)		27.1		2.0	mg/kg		01-SEP-10	R1456305
Iron (Fe)		13300		200	mg/kg		01-SEP-10	R1456305
Lead (Pb)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Molybdenum (Mo)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Nickel (Ni)		27.9		2.0	mg/kg		01-SEP-10	R1456305
Selenium (Se)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Silver (Ag)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Strontium (Sr)		9.6		1.0	mg/kg		01-SEP-10	R1456305
Thallium (Tl)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Tin (Sn)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Uranium (U)		<2.0		2.0	mg/kg		01-SEP-10	R1456305
Vanadium (V)		26.8		1.0	mg/kg		01-SEP-10	R1456305
Zinc (Zn)		50		10	mg/kg		01-SEP-10	R1456305
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		27-AUG-10	R1451744
Particle Size								
% Sand		57.2		1.0	%		09-SEP-10	R1462061
% Silt		38.6		1.0	%		09-SEP-10	R1462061
% Clay		4.2		1.0	%		09-SEP-10	R1462061
Texture		Sandy loam					09-SEP-10	R1462061
L923262-6	FL4 (REF AREA #1, SEDIMENT)							
Sampled By: TH/SW on 21-AUG-10 @ 14:30								
Matrix: SEDIMENT								
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	27-AUG-10	27-AUG-10	R1451909
Total Organic Carbon		0.35		0.10	%	27-AUG-10	27-AUG-10	R1451909
CaCO3 Equivalent		<0.80		0.80	%	27-AUG-10	27-AUG-10	R1451909
Total Carbon by combustion method								
Total Carbon by Combustion		0.4		0.1	%	27-AUG-10	27-AUG-10	R1452047
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	31-AUG-10	01-SEP-10	R1456352
Metals in Soil by ICPMS								
Aluminum (Al)		3800		50	mg/kg		01-SEP-10	R1456305
Antimony (Sb)		<0.20		0.20	mg/kg		01-SEP-10	R1456305

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-6 FL4 (REF AREA #1, SEDIMENT)								
Sampled By: TH/SW on 21-AUG-10 @ 14:30								
Matrix: SEDIMENT								
Metals in Soil by ICPMS								
Arsenic (As)		7.06		0.20	mg/kg		01-SEP-10	R1456305
Barium (Ba)		30.8		5.0	mg/kg		01-SEP-10	R1456305
Beryllium (Be)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Cadmium (Cd)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Chromium (Cr)		15.5		0.50	mg/kg		01-SEP-10	R1456305
Cobalt (Co)		5.1		1.0	mg/kg		01-SEP-10	R1456305
Copper (Cu)		7.7		2.0	mg/kg		01-SEP-10	R1456305
Iron (Fe)		6380		200	mg/kg		01-SEP-10	R1456305
Lead (Pb)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Molybdenum (Mo)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Nickel (Ni)		12.8		2.0	mg/kg		01-SEP-10	R1456305
Selenium (Se)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Silver (Ag)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Strontium (Sr)		3.7		1.0	mg/kg		01-SEP-10	R1456305
Thallium (Tl)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Tin (Sn)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Uranium (U)		<2.0		2.0	mg/kg		01-SEP-10	R1456305
Vanadium (V)		13.2		1.0	mg/kg		01-SEP-10	R1456305
Zinc (Zn)		18		10	mg/kg		01-SEP-10	R1456305
Miscellaneous Parameters								
Fragments > 2mm		6.7		1.0	%		27-AUG-10	R1451744
Particle Size								
% Sand		85.6		1.0	%		09-SEP-10	R1462061
% Silt		11.8		1.0	%		09-SEP-10	R1462061
% Clay		2.6		1.0	%		09-SEP-10	R1462061
Texture		Loamy sand					09-SEP-10	R1462061
L923262-7 FL5 (REF AREA #1, SEDIMENT)								
Sampled By: TH/SW on 21-AUG-10 @ 15:30								
Matrix: SEDIMENT								
Total Organic Carbon -Inorg & Total C								
 Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	27-AUG-10	27-AUG-10	R1451909
Total Organic Carbon		0.44		0.10	%	27-AUG-10	27-AUG-10	R1451909
CaCO3 Equivalent		<0.80		0.80	%	27-AUG-10	27-AUG-10	R1451909
Total Carbon by combustion method								
Total Carbon by Combustion		0.4		0.1	%	27-AUG-10	27-AUG-10	R1452047
Metals in Soil by ICPMS (CCME)								
 Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	31-AUG-10	01-SEP-10	R1456352
Metals in Soil by ICPMS								
Aluminum (Al)		3890		50	mg/kg		01-SEP-10	R1456305
Antimony (Sb)		<0.20		0.20	mg/kg		01-SEP-10	R1456305
Arsenic (As)		5.89		0.20	mg/kg		01-SEP-10	R1456305
Barium (Ba)		27.9		5.0	mg/kg		01-SEP-10	R1456305
Beryllium (Be)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Cadmium (Cd)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Chromium (Cr)		15.9		0.50	mg/kg		01-SEP-10	R1456305
Cobalt (Co)		4.7		1.0	mg/kg		01-SEP-10	R1456305
Copper (Cu)		6.9		2.0	mg/kg		01-SEP-10	R1456305
Iron (Fe)		7340		200	mg/kg		01-SEP-10	R1456305
Lead (Pb)		<5.0		5.0	mg/kg		01-SEP-10	R1456305

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923262-7 FL5 (REF AREA #1, SEDIMENT)								
Sampled By: TH/SW on 21-AUG-10 @ 15:30								
Matrix: SEDIMENT								
Metals in Soil by ICPMS								
Molybdenum (Mo)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Nickel (Ni)		10.7		2.0	mg/kg		01-SEP-10	R1456305
Selenium (Se)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Silver (Ag)		<1.0		1.0	mg/kg		01-SEP-10	R1456305
Strontium (Sr)		3.2		1.0	mg/kg		01-SEP-10	R1456305
Thallium (Tl)		<0.50		0.50	mg/kg		01-SEP-10	R1456305
Tin (Sn)		<5.0		5.0	mg/kg		01-SEP-10	R1456305
Uranium (U)		<2.0		2.0	mg/kg		01-SEP-10	R1456305
Vanadium (V)		13.1		1.0	mg/kg		01-SEP-10	R1456305
Zinc (Zn)		18		10	mg/kg		01-SEP-10	R1456305
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		27-AUG-10	R1451744
Particle Size								
% Sand		88.0		1.0	%		09-SEP-10	R1462061
% Silt		10.2		1.0	%		09-SEP-10	R1462061
% Clay		1.8		1.0	%		09-SEP-10	R1462061
Texture		Sand					09-SEP-10	R1462061

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Chloride (Cl)	MS-B	L923262-1, -2
Matrix Spike	Chloride (Cl)	MS-B	L923262-1, -2
Matrix Spike	Total Organic Carbon	MS-B	L923262-1, -2
Matrix Spike	Total Organic Carbon	MS-B	L923262-1, -2
Matrix Spike	Total Organic Carbon	MS-B	L923262-1, -2
Matrix Spike	Total Organic Carbon	MS-B	L923262-1, -2
Matrix Spike	Dissolved Organic Carbon	MS-B	L923262-1, -2
Matrix Spike	Dissolved Organic Carbon	MS-B	L923262-1, -2

Sample Parameter Qualifier Key:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRVAP	Reported Result Verified by Alternate Process

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-DIS-ORG-ED	Water	Dissolved Organic Carbon	APHA 5310 B-Instrumental
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO₂ loss is proportional to the carbonate content of the soil.

Reference:

Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-LECO-SK Soil Total Carbon by combustion method SSSA (1996) P. 973-974

The sample is introduced into a quartz tube where it undergoes combustion at 900 °C in the presence of oxygen. Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen. This mixture of N₂, CO₂, and H₂O is then passed through an absorber column containing magnesium perchlorate to remove water. N₂ and CO₂ gases are then separated in a gas chromatographic column and detected by thermal conductivity.

Reference:

Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-ORG-ED	Water	Total Organic Carbon	APHA 5310 B-Instrumental
CD-D-CCME-FAL-MS-ED	Water	Diss. Cd in Water by ICPMS (CCME - FAL)	APHA 3125-ICP-MS
CD-T-CCME-FAL-MS-ED	Water	Total Cd in Water by ICPMS (CCME - FAL)	APHA 3125-ICP-MS
CL-IC-ED	Water	Chloride by IC	APHA 4110 B-ION CHROMATOGRAPHY
CN-TOT-WT	Water	Cyanide, Total	APHA 4500CN C E-STRONG ACID DIST COLORIM

Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.

F-IC-ED	Water	Fluoride by IC	APHA 4110 B-ION CHROMATOGRAPHY
FE-D-NP-U-ICP-ED	Water	Dissolved Fe in Water by ICPOES (Ultra)	APHA 3120 B-ICP-OES

Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.

FE-T-NP-U-ICP-ED	Water	Fe in Water by ICPOES (Undigested)	APHA 3120 B-ICP-OES
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Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine non-turbid acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
requested on samples submitted for this test to aid with interpretation of results.			
HG-200.2-CVAA-ED	Soil	Mercury in Soil by CVAAS	EPA 200.2/245.1
Test method is based on US EPA Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements", and meets all requirements of BC CSR Analytical Method 8 "Strong Acid Leachable Metals (SALM) in Soil", BC MOE, June 26, 2001. Soil is dried at <60°C and digested with nitric and hydrochloric acids, prior to analysis for mercury by cold vapour atomic absorption.			
HG-D-L-CVAA-ED	Water	Mercury (Hg) - Dissolved	EPA 245.7 / EPA 245.1
HG-T-L-CVAA-ED	Water	Mercury (Hg)	EPA 245.7 / EPA 245.1
IONBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-200.2-MS-ED	Soil	Metals in Soil by ICPMS	EPA 200.2/6020A
MET-D-L-ICP-ED	Water	Diss. Metals in Water by ICPOES (Low)	APHA 3120 B-ICP-OES
MET-D-NP-U-MS-ED	Water	Diss. Metals in Water by ICPMS (Ultra)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
MET-T-NP-U-MS-ED	Water	Metals in Water by ICPMS (Undigested)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
N2N3-LOW-ED	Water	Nitrate+Nitrite-N	APHA 4500 NO3E-Colorimetry
NH4-LOW-ED	Water	Ammonia-N Low Level	APHA 4500 NH3F-Colorimetry
NO2-LOW-ED	Water	Nitrite-N	APHA 4500 NO2B-Colorimetry
NO3-LOW-ED	Water	Nitrate-N	APHA 4500 NO3H-Colorimetry
P-TOTAL-LOW-ED	Water	Phosphorus, Total- Low Level	APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
PSA-1-ED	Soil	Particle Size	CSSS 47.3 - Hydrometer
PSA-COARSE_FRAGS-ED	Soil	Fragments >2mm (Cobbles and Stones)	CSSS 47.4
RAD-RA226-BE	Water	Radium 226 (Becquerel)	MODIFIED EPA.903.0
SO4-L-IC-ED	Water	Sulfate by IC (Low Level)	APHA 4110 B-ION CHROMATOGRAPHY
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA
SK	ALS LABORATORY GROUP - SASKATOON, SASKATCHEWAN, CANADA
WT	ALS LABORATORY GROUP - WATERLOO, ONTARIO, CANADA
BE	Bequerel Laboratories Inc. - Mississauga, Ontario, Canada

Chain of Custody Numbers:

10-062781

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg ww - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.

< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-DIS-ORG-ED		Water						
Batch	R1460765							
WG1163372-10 CVS								
Dissolved Organic Carbon			122		%		70-130	09-SEP-10
WG1163372-19 CVS								
Dissolved Organic Carbon			111		%		80-160	10-SEP-10
WG1163372-26 CVS								
Dissolved Organic Carbon			116		%		80-160	13-SEP-10
WG1163372-3 CVS								
Dissolved Organic Carbon			126		%		80-160	08-SEP-10
WG1163372-34 CVS								
Dissolved Organic Carbon			125		%		80-160	14-SEP-10
WG1163372-20 DUP		L928299-4						
Dissolved Organic Carbon		19.0	19.8		mg/L	3.9	20	10-SEP-10
WG1163372-22 DUP		L928299-24						
Dissolved Organic Carbon		25.1	24.5		mg/L	2.5	20	10-SEP-10
WG1163372-1 LCS								
Dissolved Organic Carbon			97		%		80-120	08-SEP-10
WG1163372-18 LCS								
Dissolved Organic Carbon			92		%		80-120	10-SEP-10
WG1163372-25 LCS								
Dissolved Organic Carbon			95		%		80-120	13-SEP-10
WG1163372-33 LCS								
Dissolved Organic Carbon			91		%		80-120	14-SEP-10
WG1163372-9 LCS								
Dissolved Organic Carbon			95		%		70-130	09-SEP-10
WG1163372-17 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	10-SEP-10
WG1163372-2 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	08-SEP-10
WG1163372-24 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	13-SEP-10
WG1163372-32 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	14-SEP-10
WG1163372-8 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	09-SEP-10
WG1163372-21 MS		L928299-5						
Dissolved Organic Carbon			N/A	MS-B	%		-	10-SEP-10
WG1163372-23 MS		L928299-25						
Dissolved Organic Carbon			N/A	MS-B	%		-	10-SEP-10



Quality Control Report

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-ED		Water						
Batch	R1460765							
WG1163372-10 CVS								
Total Organic Carbon			122		%		70-130	10-SEP-10
WG1163372-19 CVS								
Total Organic Carbon			111		%		80-160	10-SEP-10
WG1163372-26 CVS								
Total Organic Carbon			116		%		80-160	13-SEP-10
WG1163372-3 CVS								
Total Organic Carbon			126		%		80-160	09-SEP-10
WG1163372-34 CVS								
Total Organic Carbon			125		%		80-160	15-SEP-10
WG1163372-11 DUP		L928730-1						
Total Organic Carbon		11.0	11.2		mg/L	1.4	20	09-SEP-10
WG1163372-13 DUP		L926789-4						
Total Organic Carbon		19.9	19.3		mg/L	3.1	20	09-SEP-10
WG1163372-15 DUP		L926789-14						
Total Organic Carbon		16.0	15.6		mg/L	2.7	20	10-SEP-10
WG1163372-27 DUP		L929253-6						
Total Organic Carbon		5.3	5.3		mg/L	0.095	20	13-SEP-10
WG1163372-29 DUP		L929268-9						
Total Organic Carbon		5.2	5.1		mg/L	1.5	20	13-SEP-10
WG1163372-31 DUP		L930271-1						
Total Organic Carbon		<1.0	<1.0	RPD-NA	mg/L	N/A	20	14-SEP-10
WG1163372-4 DUP		L927530-9						
Total Organic Carbon		5.3	5.3		mg/L	1.8	20	08-SEP-10
WG1163372-6 DUP		L927883-7						
Total Organic Carbon		28.3	28.5		mg/L	0.74	20	08-SEP-10
WG1163372-1 LCS								
Total Organic Carbon			97		%		80-120	08-SEP-10
WG1163372-18 LCS								
Total Organic Carbon			92		%		80-120	10-SEP-10
WG1163372-25 LCS								
Total Organic Carbon			95		%		80-120	13-SEP-10
WG1163372-33 LCS								
Total Organic Carbon			91		%		80-120	15-SEP-10
WG1163372-9 LCS								
Total Organic Carbon			95		%		70-130	10-SEP-10
WG1163372-17 MB								
Total Organic Carbon			<1.0		mg/L		1	10-SEP-10

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-ED		Water						
Batch	R1460765							
WG1163372-2	MB							
Total Organic Carbon			<1.0		mg/L		1	08-SEP-10
WG1163372-24	MB							
Total Organic Carbon			<1.0		mg/L		1	13-SEP-10
WG1163372-32	MB							
Total Organic Carbon			<1.0		mg/L		1	14-SEP-10
WG1163372-8	MB							
Total Organic Carbon			<1.0		mg/L		1	09-SEP-10
WG1163372-12	MS	L928730-1						
Total Organic Carbon			N/A	MS-B	%		-	09-SEP-10
WG1163372-14	MS	L926789-4						
Total Organic Carbon			N/A	MS-B	%		-	09-SEP-10
WG1163372-16	MS	L926789-14						
Total Organic Carbon			N/A	MS-B	%		-	10-SEP-10
WG1163372-28	MS	L929253-6						
Total Organic Carbon			92		%		70-130	13-SEP-10
WG1163372-30	MS	L929268-9						
Total Organic Carbon			88		%		70-130	13-SEP-10
WG1163372-5	MS	L927530-9						
Total Organic Carbon			93		%		70-130	08-SEP-10
WG1163372-7	MS	L927883-7						
Total Organic Carbon			N/A	MS-B	%		-	08-SEP-10
CD-D-CCME-FAL-MS-ED		Water						
Batch	R1474628							
WG1170506-1	MB							
Cadmium (Cd)-Dissolved			<0.00001		mg/L		0.00001	21-SEP-10
CD-T-CCME-FAL-MS-ED		Water						
Batch	R1470773							
WG1168918-2	LCS							
Cadmium (Cd)-Total			101		%		80-120	17-SEP-10
WG1168918-1	MB							
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	17-SEP-10
Batch	R1472084							
WG1168962-1	MB							
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	20-SEP-10



Quality Control Report

Workorder: L923262

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-ED		Water						
Batch	R1449889							
WG1156076-11	DUP	L924331-1						
Chloride (Cl)		155	155		mg/L	0.063	20	25-AUG-10
WG1156076-3	DUP	L922913-8						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	25-AUG-10
WG1156076-5	DUP	L923785-15						
Chloride (Cl)		15.8	15.8		mg/L	0.050	20	25-AUG-10
WG1156076-9	DUP	L917893-13						
Chloride (Cl)		103	102		mg/L	0.048	20	26-AUG-10
WG1156076-2	LCS							
Chloride (Cl)			110		%		85-115	25-AUG-10
WG1156076-1	MB							
Chloride (Cl)			<0.50		mg/L		0.5	25-AUG-10
WG1156076-10	MS	L917893-13						
Chloride (Cl)			N/A	MS-B	%		-	26-AUG-10
WG1156076-12	MS	L924331-1						
Chloride (Cl)			N/A	MS-B	%		-	25-AUG-10
WG1156076-4	MS	L922913-8						
Chloride (Cl)			109		%		75-125	25-AUG-10
WG1156076-6	MS	L923785-15						
Chloride (Cl)			107		%		75-125	25-AUG-10
CN-TOT-WT		Water						
Batch	R1454125							
WG1158854-4	CVS							
Cyanide, Total			100		%		85-115	30-AUG-10
WG1158854-3	LCS							
Cyanide, Total			111		%		80-120	30-AUG-10
WG1158854-1	MB							
Cyanide, Total			<0.0020		mg/L		0.002	30-AUG-10
F-IC-ED		Water						
Batch	R1449889							
WG1156076-3	DUP	L922913-8						
Fluoride (F)		<0.050	<0.050	RPD-NA	mg/L	N/A	20	25-AUG-10
WG1156076-2	LCS							
Fluoride (F)			108		%		85-115	25-AUG-10
WG1156076-1	MB							
Fluoride (F)			<0.050		mg/L		0.05	25-AUG-10
WG1156076-4	MS	L922913-8						
Fluoride (F)			110		%		75-125	25-AUG-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
FE-D-NP-U-ICP-ED								
Water								
Batch	R1454830							
WG1159199-2	CRM	EU-H-3_OPTWATER						
WG1159199-1	MB							
Iron (Fe)-Dissolved			<0.0050		mg/L		0.005	31-AUG-10
FE-T-NP-U-ICP-ED								
Water								
Batch	R1473907							
WG1170911-2	DUP	L929483-6						
Iron (Fe)-Total		0.0103	0.0073	J	mg/L	0.0029	0.01	22-SEP-10
WG1170911-1	MB							
Iron (Fe)-Total			<0.0050		mg/L		0.005	22-SEP-10
HG-D-L-CVAA-ED								
Water								
Batch	R1470116							
WG1168657-8	DUP	L928365-2						
Mercury (Hg)-Dissolved		<0.020	<0.000020	RPD-NA	mg/L	N/A	20	17-SEP-10
WG1168657-2	LCS							
Mercury (Hg)-Dissolved			96		%		80-120	17-SEP-10
WG1168657-3	LCSD	WG1168657-2						
Mercury (Hg)-Dissolved		96	97		%	1.1	20	17-SEP-10
WG1168657-1	MB							
Mercury (Hg)-Dissolved			<0.000020		mg/L		0.00002	17-SEP-10
WG1168657-9	MS	L928365-2						
Mercury (Hg)-Dissolved			108		%		70-130	17-SEP-10
HG-T-L-CVAA-ED								
Water								
Batch	R1470116							
WG1168657-2	LCS							
Mercury (Hg)-Total			96		%		80-120	17-SEP-10
WG1168657-3	LCSD	WG1168657-2						
Mercury (Hg)-Total		96	97		%	1.1	20	17-SEP-10
WG1168657-1	MB							
Mercury (Hg)-Total			<0.000020		mg/L		0.00002	17-SEP-10
MET-D-L-ICP-ED								
Water								
Batch	R1454830							
WG1159199-2	CRM	EU-H-3_OPTWATER						
WG1159199-11	DUP	L921144-16						
Calcium (Ca)-Dissolved		N/A	20.4		mg/L	1.6	20	31-AUG-10
Magnesium (Mg)-Dissolved		N/A	7.05		mg/L	1.9	20	31-AUG-10
Potassium (K)-Dissolved		N/A	9.73		mg/L	3.2	20	31-AUG-10
Sodium (Na)-Dissolved		N/A	23.5		mg/L	3.0	20	31-AUG-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-L-ICP-ED		Water						
Batch	R1454830							
WG1159199-5	DUP	L922498-4						
Calcium (Ca)-Dissolved		18.4	17.6		mg/L	4.6	20	31-AUG-10
Magnesium (Mg)-Dissolved		7.07	6.89		mg/L	2.6	20	31-AUG-10
Potassium (K)-Dissolved		2.20	2.23		mg/L	1.2	20	31-AUG-10
Sodium (Na)-Dissolved		34.6	32.6		mg/L	5.9	20	31-AUG-10
WG1159199-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	31-AUG-10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	31-AUG-10
Potassium (K)-Dissolved			<0.10		mg/L		0.1	31-AUG-10
Sodium (Na)-Dissolved			<0.50		mg/L		0.5	31-AUG-10
WG1159199-12	MS	L921144-16						
Calcium (Ca)-Dissolved			113		%		70-130	31-AUG-10
Magnesium (Mg)-Dissolved			110		%		70-130	31-AUG-10
Potassium (K)-Dissolved			109		%		70-130	31-AUG-10
Sodium (Na)-Dissolved			113		%		70-130	31-AUG-10
WG1159199-6	MS	L922498-4						
Calcium (Ca)-Dissolved			106		%		70-130	31-AUG-10
Magnesium (Mg)-Dissolved			101		%		70-130	31-AUG-10
Potassium (K)-Dissolved			94		%		70-130	31-AUG-10
Sodium (Na)-Dissolved			102		%		70-130	31-AUG-10
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2	CRM	1643E_WATER						
Aluminum (Al)-Dissolved			108		%		80-120	21-SEP-10
Antimony (Sb)-Dissolved			97		%		80-120	21-SEP-10
Arsenic (As)-Dissolved			102		%		80-120	21-SEP-10
Barium (Ba)-Dissolved			104		%		80-120	21-SEP-10
Beryllium (Be)-Dissolved			103		%		80-120	21-SEP-10
Bismuth (Bi)-Dissolved			103		%		80-120	21-SEP-10
Boron (B)-Dissolved			95		%		80-120	21-SEP-10
Cadmium (Cd)-Dissolved			105		%		80-120	21-SEP-10
Calcium (Ca)-Dissolved			96		%		80-120	21-SEP-10
Chromium (Cr)-Dissolved			104		%		80-120	21-SEP-10
Cobalt (Co)-Dissolved			97		%		80-120	21-SEP-10
Copper (Cu)-Dissolved			104		%		80-120	21-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Lead (Pb)-Dissolved			98		%		80-120	21-SEP-10
Lithium (Li)-Dissolved			115		%		80-120	21-SEP-10
Magnesium (Mg)-Dissolved			104		%		80-120	21-SEP-10
Manganese (Mn)-Dissolved			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Dissolved			98		%		80-120	21-SEP-10
Nickel (Ni)-Dissolved			103		%		80-120	21-SEP-10
Potassium (K)-Dissolved			95		%		80-120	21-SEP-10
Selenium (Se)-Dissolved			106		%		80-120	21-SEP-10
Sodium (Na)-Dissolved			104		%		80-120	21-SEP-10
Strontium (Sr)-Dissolved			104		%		80-120	21-SEP-10
Thallium (Tl)-Dissolved			100		%		80-120	21-SEP-10
Vanadium (V)-Dissolved			101		%		80-120	21-SEP-10
Zinc (Zn)-Dissolved			110		%		80-120	21-SEP-10
WG1170506-1 MB								
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	21-SEP-10
Antimony (Sb)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Arsenic (As)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Beryllium (Be)-Dissolved			<0.00020		mg/L		0.0002	21-SEP-10
Bismuth (Bi)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Boron (B)-Dissolved			<0.0010		mg/L		0.001	21-SEP-10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	21-SEP-10
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Lithium (Li)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	21-SEP-10
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Nickel (Ni)-Dissolved			<0.00006		mg/L		0.00006	21-SEP-10
Potassium (K)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Selenium (Se)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10



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Client: AECOM CANADA LTD.
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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-1 MB								
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	21-SEP-10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Thallium (Tl)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Uranium (U)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	21-SEP-10
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Aluminum (Al)-Total			108		%		80-120	21-SEP-10
Antimony (Sb)-Total			97		%		80-120	21-SEP-10
Arsenic (As)-Total			102		%		80-120	21-SEP-10
Barium (Ba)-Total			104		%		80-120	21-SEP-10
Beryllium (Be)-Total			106		%		80-120	21-SEP-10
Bismuth (Bi)-Total			103		%		80-120	21-SEP-10
Boron (B)-Total			95		%		80-120	21-SEP-10
Cadmium (Cd)-Total			105		%		80-120	21-SEP-10
Calcium (Ca)-Total			96		%		80-120	21-SEP-10
Chromium (Cr)-Total			104		%		80-120	21-SEP-10
Cobalt (Co)-Total			97		%		80-120	21-SEP-10
Copper (Cu)-Total			104		%		80-120	21-SEP-10
Lead (Pb)-Total			98		%		80-120	21-SEP-10
Lithium (Li)-Total			115		%		80-120	21-SEP-10
Magnesium (Mg)-Total			104		%		80-120	21-SEP-10
Manganese (Mn)-Total			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Total			98		%		80-120	21-SEP-10
Nickel (Ni)-Total			103		%		80-120	21-SEP-10
Potassium (K)-Total			95		%		80-120	21-SEP-10
Selenium (Se)-Total			106		%		80-120	21-SEP-10
Silver (Ag)-Total			101		%		80-120	21-SEP-10
Sodium (Na)-Total			104		%		80-120	21-SEP-10



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17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Sodium (Na)-Total			104		%		80-120	21-SEP-10
Strontium (Sr)-Total			104		%		80-120	21-SEP-10
Thallium (Tl)-Total			100		%		80-120	21-SEP-10
Vanadium (V)-Total			101		%		80-120	21-SEP-10
Zinc (Zn)-Total			110		%		80-120	21-SEP-10
WG1170506-3 DUP		L929483-1						
Aluminum (Al)-Total		0.00074	0.00044	J	mg/L	0.00030	0.0006	21-SEP-10
Antimony (Sb)-Total		0.000072	0.000071		mg/L	0.90	20	21-SEP-10
Arsenic (As)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Barium (Ba)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	21-SEP-10
Bismuth (Bi)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Boron (B)-Total		0.0047	0.0045		mg/L	4.9	20	21-SEP-10
Cadmium (Cd)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Calcium (Ca)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Chromium (Cr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Copper (Cu)-Total		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	21-SEP-10
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Lithium (Li)-Total		0.00015	0.00020	J	mg/L	0.00005	0.0002	21-SEP-10
Magnesium (Mg)-Total		N/A	<0.0040	RPD-NA	mg/L	N/A	20	21-SEP-10
Manganese (Mn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Molybdenum (Mo)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Nickel (Ni)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Potassium (K)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Selenium (Se)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Sodium (Na)-Total		N/A	<0.0050	RPD-NA	mg/L	N/A	20	21-SEP-10
Strontium (Sr)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Thallium (Tl)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Tin (Sn)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Titanium (Ti)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Uranium (U)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10



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17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SO4-L-IC-ED		Water						
Batch	R1449889							
WG1156076-2	LCS							
Sulfate (SO4)			111		%		85-115	25-AUG-10
WG1156076-1	MB							
Sulfate (SO4)			<0.050		mg/L		0.05	25-AUG-10
SOLIDS-TOTSUS-ED		Water						
Batch	R1449362							
WG1155777-3	DUP	L923267-3						
Total Suspended Solids		16.0	16.0		mg/L	0.0	20	25-AUG-10
WG1155777-2	LCS							
Total Suspended Solids			94		%		85-115	25-AUG-10
WG1155777-1	MB							
Total Suspended Solids			<3.0		mg/L		3	25-AUG-10
C-INORG-ORG-SK		Soil						
Batch	R1451909							
WG1156268-1	DUP	L922894-14						
Inorganic Carbon		0.14	0.13		%	7.9	30	27-AUG-10
CaCO3 Equivalent		2.03	1.95		%	4.0	25	27-AUG-10
WG1156268-2	IRM	0.4%IC						
Inorganic Carbon			0.43		%		0.28-0.52	27-AUG-10
CaCO3 Equivalent			3.82		%		2.33-4.33	27-AUG-10
WG1156268-3	MB							
Inorganic Carbon			<0.10		%		0.1	27-AUG-10
CaCO3 Equivalent			<0.80		%		0.8	27-AUG-10
C-TOT-LECO-SK		Soil						
Batch	R1452047							
WG1156240-1	DUP	L922894-18						
Total Carbon by Combustion		42.4	41.3		%	2.6	10	27-AUG-10
WG1156240-2	IRM	2004_SOIL						
Total Carbon by Combustion			1.4		%		1.1-1.7	27-AUG-10
WG1156240-3	MB							
Total Carbon by Combustion			<0.1		%		0.1	27-AUG-10
HG-200.2-CVAA-ED		Soil						
Batch	R1456352							
WG1159634-3	CRM	TILL-1_SOIL						
Mercury (Hg)			105		%		80-120	01-SEP-10
WG1159634-4	CRM	PACS-2_SOIL						
Mercury (Hg)			102		%		80-120	01-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-200.2-CVAA-ED		Soil						
Batch	R1456352							
WG1159634-5	DUP	L923262-5						
Mercury (Hg)		<0.050	<0.050	RPD-NA	mg/kg	N/A	20	01-SEP-10
WG1159634-6	DUP	L924684-6						
Mercury (Hg)		<0.050	0.050	RPD-NA	mg/kg	N/A	20	01-SEP-10
WG1159634-1	MB							
Mercury (Hg)			<0.050		mg/kg		0.05	01-SEP-10
WG1159634-2	MB							
Mercury (Hg)			<0.050		mg/kg		0.05	01-SEP-10
MET-200.2-MS-ED		Soil						
Batch	R1456305							
WG1159634-3	CRM	TILL-1_SOIL						
Aluminum (Al)			83		%		60-140	01-SEP-10
Antimony (Sb)			99		%		80-120	01-SEP-10
Arsenic (As)			98		%		80-120	01-SEP-10
Barium (Ba)			98		%		60-140	01-SEP-10
Chromium (Cr)			99		%		80-120	01-SEP-10
Cobalt (Co)			103		%		80-120	01-SEP-10
Copper (Cu)			100		%		80-120	01-SEP-10
Iron (Fe)			89		%		80-120	01-SEP-10
Lead (Pb)			94		%		80-120	01-SEP-10
Nickel (Ni)			100		%		80-120	01-SEP-10
Strontium (Sr)			99		%		60-140	01-SEP-10
Vanadium (V)			98		%		80-120	01-SEP-10
Zinc (Zn)			97		%		80-120	01-SEP-10
WG1159634-4	CRM	PACS-2_SOIL						
Aluminum (Al)			86		%		60-140	01-SEP-10
Antimony (Sb)			113		%		80-120	01-SEP-10
Arsenic (As)			101		%		80-120	01-SEP-10
Barium (Ba)			98		%		60-140	01-SEP-10
Cadmium (Cd)			113		%		60-140	01-SEP-10
Chromium (Cr)			99		%		80-120	01-SEP-10
Cobalt (Co)			102		%		80-120	01-SEP-10
Copper (Cu)			96		%		80-120	01-SEP-10
Iron (Fe)			96		%		80-120	01-SEP-10
Lead (Pb)			103		%		80-120	01-SEP-10



Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED		Soil						
Batch	R1456305							
WG1159634-4	CRM	PACS-2_SOIL						
Molybdenum (Mo)			107		%		80-120	01-SEP-10
Nickel (Ni)			100		%		80-120	01-SEP-10
Strontium (Sr)			100		%		60-140	01-SEP-10
Tin (Sn)			109		%		80-120	01-SEP-10
Vanadium (V)			99		%		80-120	01-SEP-10
Zinc (Zn)			100		%		80-120	01-SEP-10
WG1159634-5	DUP	L923262-5						
Aluminum (Al)		7890	7900		mg/kg	0.18	50	01-SEP-10
Antimony (Sb)		<0.20	<0.20	RPD-NA	mg/kg	N/A	30	01-SEP-10
Arsenic (As)		24.7	25.6		mg/kg	3.3	30	01-SEP-10
Barium (Ba)		47.8	48.2		mg/kg	0.75	50	01-SEP-10
Beryllium (Be)		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	01-SEP-10
Cadmium (Cd)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	01-SEP-10
Chromium (Cr)		29.1	29.2		mg/kg	0.34	30	01-SEP-10
Cobalt (Co)		9.2	9.3		mg/kg	0.35	30	01-SEP-10
Copper (Cu)		27.1	27.3		mg/kg	0.60	30	01-SEP-10
Iron (Fe)		13300	13300		mg/kg	0.47	30	01-SEP-10
Lead (Pb)		<5.0	<5.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Molybdenum (Mo)		<1.0	<1.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Nickel (Ni)		27.9	27.0		mg/kg	3.2	30	01-SEP-10
Selenium (Se)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	01-SEP-10
Silver (Ag)		<1.0	<1.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Strontium (Sr)		9.6	9.5		mg/kg	0.43	50	01-SEP-10
Thallium (Tl)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	01-SEP-10
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Uranium (U)		<2.0	<2.0	RPD-NA	mg/kg	N/A	30	01-SEP-10
Vanadium (V)		26.8	26.7		mg/kg	0.22	30	01-SEP-10
Zinc (Zn)		50	51		mg/kg	1.3	30	01-SEP-10
WG1159634-6	DUP	L924684-6						
Aluminum (Al)		10200	9250		mg/kg	9.5	50	01-SEP-10
Antimony (Sb)		0.49	0.47		mg/kg	3.8	30	01-SEP-10
Arsenic (As)		4.32	4.27		mg/kg	1.2	30	01-SEP-10
Barium (Ba)		227	222		mg/kg	2.2	50	01-SEP-10



Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED		Soil						
Batch	R1456305							
WG1159634-6	DUP	L924684-6						
Beryllium (Be)		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	01-SEP-10
Cadmium (Cd)		0.82	0.83		mg/kg	1.2	30	01-SEP-10
Chromium (Cr)		14.2	13.2		mg/kg	7.6	30	01-SEP-10
Cobalt (Co)		8.7	8.4		mg/kg	3.7	30	01-SEP-10
Copper (Cu)		23.6	23.5		mg/kg	0.57	30	01-SEP-10
Iron (Fe)		17000	16400		mg/kg	3.6	30	01-SEP-10
Lead (Pb)		14.4	14.2		mg/kg	1.2	50	01-SEP-10
Molybdenum (Mo)		<1.0	<1.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Nickel (Ni)		24.5	23.6		mg/kg	3.5	30	01-SEP-10
Selenium (Se)		1.10	1.08		mg/kg	2.5	30	01-SEP-10
Silver (Ag)		<1.0	<1.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Strontium (Sr)		105	102		mg/kg	2.2	50	01-SEP-10
Thallium (Tl)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	01-SEP-10
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	50	01-SEP-10
Uranium (U)		<2.0	<2.0	RPD-NA	mg/kg	N/A	30	01-SEP-10
Vanadium (V)		30.2	27.6		mg/kg	9.1	30	01-SEP-10
Zinc (Zn)		121	117		mg/kg	3.6	30	01-SEP-10
WG1159634-1	MB							
Aluminum (Al)			<50		mg/kg		50	01-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	01-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	01-SEP-10
Barium (Ba)			<5.0		mg/kg		5	01-SEP-10
Beryllium (Be)			<1.0		mg/kg		1	01-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	01-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	01-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	01-SEP-10
Copper (Cu)			<2.0		mg/kg		2	01-SEP-10
Iron (Fe)			<200		mg/kg		200	01-SEP-10
Lead (Pb)			<5.0		mg/kg		5	01-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	01-SEP-10
Nickel (Ni)			<2.0		mg/kg		2	01-SEP-10
Selenium (Se)			<0.50		mg/kg		0.5	01-SEP-10
Silver (Ag)			<1.0		mg/kg		1	01-SEP-10



Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED		Soil						
Batch	R1456305							
WG1159634-1	MB							
Strontium (Sr)			<1.0		mg/kg		1	01-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	01-SEP-10
Tin (Sn)			<5.0		mg/kg		5	01-SEP-10
Uranium (U)			<2.0		mg/kg		2	01-SEP-10
Vanadium (V)			<1.0		mg/kg		1	01-SEP-10
Zinc (Zn)			<10		mg/kg		10	01-SEP-10
WG1159634-2	MB							
Aluminum (Al)			<50		mg/kg		50	01-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	01-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	01-SEP-10
Barium (Ba)			<5.0		mg/kg		5	01-SEP-10
Beryllium (Be)			<1.0		mg/kg		1	01-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	01-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	01-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	01-SEP-10
Copper (Cu)			<2.0		mg/kg		2	01-SEP-10
Iron (Fe)			<200		mg/kg		200	01-SEP-10
Lead (Pb)			<5.0		mg/kg		5	01-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	01-SEP-10
Nickel (Ni)			<2.0		mg/kg		2	01-SEP-10
Selenium (Se)			<0.50		mg/kg		0.5	01-SEP-10
Silver (Ag)			<1.0		mg/kg		1	01-SEP-10
Strontium (Sr)			<1.0		mg/kg		1	01-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	01-SEP-10
Tin (Sn)			<5.0		mg/kg		5	01-SEP-10
Uranium (U)			<2.0		mg/kg		2	01-SEP-10
Vanadium (V)			<1.0		mg/kg		1	01-SEP-10
Zinc (Zn)			<10		mg/kg		10	01-SEP-10
PSA-1-ED		Soil						
Batch	R1462061							
WG1163536-2	DUP	L923262-7						
% Sand		88.0	87.8		%	0.23	10	09-SEP-10
% Silt		10.2	10.4		%	1.9	9.8	09-SEP-10
% Clay		1.8	1.8		%	0.0	10	09-SEP-10



Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PSA-1-ED	Soil							
Batch	R1462061							
WG1163536-1	MB							
% Sand			<1.0		%		1	09-SEP-10
% Silt			<1.0		%		1	09-SEP-10
% Clay			<1.0		%		1	09-SEP-10

Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L923262

Report Date: 12-NOV-10

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrate+Nitrite-N	1	21-AUG-10 11:30	24-AUG-10 00:00	48	60	hours	EHTR
	2	21-AUG-10 10:30	24-AUG-10 00:00	48	61	hours	EHTR
Nitrate-N	1	21-AUG-10 11:30	24-AUG-10 00:00	48	60	hours	EHTR
	2	21-AUG-10 10:30	24-AUG-10 00:00	48	61	hours	EHTR
Nitrite-N	1	21-AUG-10 11:30	24-AUG-10 00:00	48	60	hours	EHTR
	2	21-AUG-10 10:30	24-AUG-10 00:00	48	61	hours	EHTR
Phosphorus, Total- Low Level	1	21-AUG-10 11:30	20-SEP-10 00:00	28	30	days	EHT
	2	21-AUG-10 10:30	20-SEP-10 00:00	28	30	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L923262 were received on 23-AUG-10 15:34.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



ANALYSIS REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01096.0

Date: 08-Sep-2010

ALS Laboratory Group
Environmental Div.
9936-67th Avenue
Edmonton, AB, T6P 0P5

Phone: (780) 413-8441
FAX: (780) 437-2680

Client Ref.P.O:L923262

attn: Christine Potts

2 water samples

Sampled: 21-Aug-2010

Received: 25-Aug-2010

Page 1 of 1

<u>Results of Analysis</u>					
Sample	Test	Result	Units	Date	Method
L923262-1 FL3 (REF AREA#1, SURFACE WATER	Ra-226	< 0.01	Bq/l	02-Sep-2010	ALPHA
L923262-2 FL5 (REF AREA#1, SURFACE WATER	Ra-226	< 0.01	Bq/l	02-Sep-2010	ALPHA

Methods: ALPHA BQ-RAD-ALPHA alpha-particle spectrometry

Units: Bq/l Becquerels per litre

These results relate only to the samples analysed and only to the items tested.

08-Sep-2010 approved by: _____

Steven Simpson
Quality Manager

This test report shall not be reproduced, except in full, without written approval of Becquerel Laboratories Inc.



QUALITY REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01096.0

Date: 08-Sep-2010

Standard	Analyte	<u>Standards</u>		Result	Expected Result
		Units			
RA226.32	Ra-226	Bq/l		0.91	1.00

Analyte	<u>Blanks</u>		Result
	Units		
Ra-226	Bq/l	<	0.01

Analyte	Units	<u>Duplicates</u>		Duplicate
		Result		
Ra-226	Bq/l	< 0.01	<	0.01

Analyte	<u>Spikes</u>		% Recovery
Ra-226			81



Report To		Report Format / Distribution		Service Requested: (Rush subject to availability)													
Company: AECOM		Standard: ☒ Other (specify):		☒ Regular (Standard Turnaround Times))													
Contact: Colleen Prather		Select: PDF ☒ Excel ☒ Digital Fax		Priority, Date Req'd: (Surcharges apply)													
Address: 17007-107 Ave., Edmonton, AB		Email 1: colleen.prather@aecom.com		Emergency (1 Business Day) - 100% Surcharge													
TSS 1G3		Email 2: tiffany.hnatiuk@aecom.com		For Emergency < 1 Day, ASAP or Weekend - Contact ALS													
Phone: (780) 486-7000 Fax: (780) 486-7070				Analysis Request													
Invoice To Same as Report? (circle) Yes or No (if No, provide details)		Client / Project Information		(Indicate Filtered or Preserved, F/P)													
Copy of Invoice with Report? (circle) Yes or No		Job #: 60147160		F/P	p	F/P	p	p	F/P								
Company:		PO / AFE:		DOC	TOC	Dissolved metals	Total metals	Cyanide	Low Nutrients	RA 226	Low Routine	TSS	Particle size	TOC	Total Metals	Number of Containers	
Contact:		LSD:															
Address:		Quote #: Q25816															
Phone:		ALS contact: Sean Whitaker															
Fax:		Sampler: TH/SW															
Lab Work Order # (lab use only) L923262																	
Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type													
FL 3	(Ref. area #1, surface water)	21 Aug 10	11:30	water	X	X	X	X	X	X	X	X	X				9
FL 5	(Ref. area #1, surface water)	21 Aug 10	10:30	water	X	X	X	X	X	X	X	X	X				9
FL 1	(Ref. area #1, sediment)	21 Aug 10	16:00	sediment										X	X	X	1
FL 2	(Ref. area #1, sediment)	21 Aug 10	12:30	sediment										X	X	X	1
FL 3	(Ref. area #1, sediment)	21 Aug 10	12:00	sediment										X	X	X	1
FL 4	(Ref. area #1, sediment)	21 Aug 10	14:30	sediment										X	X	X	1
FL 5	(Ref. area #1, sediment)	21 Aug 10	15:30	sediment										X	X	X	1
Special Instructions / Regulations / Hazardous Details																	
Attn: Sean Whitaker																	
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.																	
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.																	
SHIPMENT RELEASE (client use)				SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)									
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations:							
Tiffany Hnatiuk	22 Aug 10	08:00	[Signature]	22 Aug 10	1 PM	NA °C				Yes / No ? If Yes add SIF							



AECOM CANADA LTD.
ATTN: COLLEEN PRATHER
17007 107 AVE NW
EDMONTON AB T5S 1G3
Phone: 780-486-7015

Date Received: 24-AUG-10
Report Date: 04-OCT-10 11:33 (MT)
Version: FINAL

Certificate of Analysis

Lab Work Order #: L923781
Project P.O. #: NOT SUBMITTED
Job Reference: 60147160
Legal Site Desc:
C of C Numbers: 062778

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LIMITED Part of the ALS Group A Campbell Brothers Limited Company

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-1 SCP1- EXPOSURE AREA SURFACE WATER								
Sampled By: TH/SW on 23-AUG-10 @ 09:30								
Matrix: WATER								
Dissolved Metals								
Diss. Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved		0.054		0.010	mg/L		01-OCT-10	R1485147
Antimony (Sb)-Dissolved		<0.00040		0.00040	mg/L		01-OCT-10	R1485147
Arsenic (As)-Dissolved		0.00363		0.00040	mg/L		01-OCT-10	R1485147
Barium (Ba)-Dissolved		0.00844		0.00010	mg/L		01-OCT-10	R1485147
Beryllium (Be)-Dissolved		<0.00050		0.00050	mg/L		01-OCT-10	R1485147
Bismuth (Bi)-Dissolved		<0.000050		0.000050	mg/L		01-OCT-10	R1485147
Boron (B)-Dissolved		0.0060		0.0020	mg/L		01-OCT-10	R1485147
Cadmium (Cd)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Chromium (Cr)-Dissolved		<0.00040		0.00040	mg/L		01-OCT-10	R1485147
Cobalt (Co)-Dissolved		0.00246		0.00010	mg/L		01-OCT-10	R1485147
Copper (Cu)-Dissolved		0.00321		0.00060	mg/L		01-OCT-10	R1485147
Lead (Pb)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Molybdenum (Mo)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Nickel (Ni)-Dissolved		0.0251		0.00010	mg/L		01-OCT-10	R1485147
Selenium (Se)-Dissolved		<0.00040		0.00040	mg/L		01-OCT-10	R1485147
Silver (Ag)-Dissolved		<0.00020		0.00020	mg/L		01-OCT-10	R1485147
Strontium (Sr)-Dissolved		0.0264		0.00010	mg/L		01-OCT-10	R1485147
Thallium (Tl)-Dissolved		<0.000050		0.000050	mg/L		01-OCT-10	R1485147
Tin (Sn)-Dissolved		<0.00020		0.00020	mg/L		01-OCT-10	R1485147
Titanium (Ti)-Dissolved		0.00057		0.00030	mg/L		01-OCT-10	R1485147
Uranium (U)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Vanadium (V)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Zinc (Zn)-Dissolved		0.0164		0.0010	mg/L		01-OCT-10	R1485147
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total		0.074		0.020	mg/L		21-SEP-10	R1472084
Antimony (Sb)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Arsenic (As)-Total		0.00406		0.00040	mg/L		21-SEP-10	R1472084
Barium (Ba)-Total		0.00845		0.00020	mg/L		21-SEP-10	R1472084
Beryllium (Be)-Total		<0.0010		0.0010	mg/L		21-SEP-10	R1472084
Bismuth (Bi)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1472084
Boron (B)-Total		<0.020		0.020	mg/L		21-SEP-10	R1472084
Cadmium (Cd)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1472084
Chromium (Cr)-Total		<0.00080		0.00080	mg/L		21-SEP-10	R1472084
Cobalt (Co)-Total		0.00261		0.00020	mg/L		21-SEP-10	R1472084
Copper (Cu)-Total		0.0035		0.0010	mg/L		21-SEP-10	R1472084
Lead (Pb)-Total		<0.00010		0.00010	mg/L		21-SEP-10	R1472084
Molybdenum (Mo)-Total		0.00010		0.00010	mg/L		21-SEP-10	R1472084
Nickel (Ni)-Total		0.0255		0.00020	mg/L		21-SEP-10	R1472084
Selenium (Se)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Silver (Ag)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Strontium (Sr)-Total		0.0266		0.00020	mg/L		21-SEP-10	R1472084
Thallium (Tl)-Total		<0.00010		0.00010	mg/L		21-SEP-10	R1472084
Tin (Sn)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		21-SEP-10	R1472084
Uranium (U)-Total		<0.00010		0.00010	mg/L		21-SEP-10	R1472084
Vanadium (V)-Total		<0.00050		0.00050	mg/L		21-SEP-10	R1472084
Zinc (Zn)-Total		0.0130		0.0040	mg/L		21-SEP-10	R1472084
Total Metals in Water by ICPOES (Low)								
Calcium (Ca)-Total		5.34		0.50	mg/L		01-OCT-10	R1485205
Iron (Fe)-Total		0.382		0.010	mg/L		01-OCT-10	R1485205

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-1 SCP1- EXPOSURE AREA SURFACE WATER								
Sampled By: TH/SW on 23-AUG-10 @ 09:30								
Matrix: WATER								
Total Metals in Water by ICPOES (Low)								
Magnesium (Mg)-Total		2.59		0.10	mg/L		01-OCT-10	R1485205
Manganese (Mn)-Total		0.0360		0.0020	mg/L		01-OCT-10	R1485205
Potassium (K)-Total		0.13		0.10	mg/L		01-OCT-10	R1485205
Sodium (Na)-Total		2.3		1.0	mg/L		01-OCT-10	R1485205
Miscellaneous Parameters								
Ammonia-N		0.0101		0.0050	mg/L		01-SEP-10	R1455811
Cyanide, Total		<0.0020		0.0020	mg/L	09-SEP-10	09-SEP-10	R1461729
Cadmium (Cd)-Dissolved		0.000026		0.000010	mg/L		01-OCT-10	R1485147
Dissolved Organic Carbon		6.4		1.0	mg/L		17-SEP-10	R1467022
Mercury (Hg)-Total		<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Mercury (Hg)-Dissolved		<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Phosphorus, Total		0.0036		0.0010	mg/L		21-SEP-10	R1473265
Radium-226		See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total		0.000023		0.000010	mg/L		21-SEP-10	R1472084
Total Organic Carbon		6.6		1.0	mg/L		17-SEP-10	R1467022
Total Suspended Solids		<3.0		3.0	mg/L		27-AUG-10	R1451704
Routine Water Analysis - Low Level								
Chloride by IC								
Chloride (Cl)		1.12		0.50	mg/L		26-AUG-10	R1449889
Diss. Metals in Water by ICPOES (Low)								
Calcium (Ca)-Dissolved		5.44		0.50	mg/L		20-SEP-10	R1472095
Magnesium (Mg)-Dissolved		2.57		0.10	mg/L		20-SEP-10	R1472095
Potassium (K)-Dissolved		0.49		0.10	mg/L		20-SEP-10	R1472095
Sodium (Na)-Dissolved		2.3		1.0	mg/L		20-SEP-10	R1472095
Fluoride by IC								
Fluoride (F)		0.054		0.050	mg/L		26-AUG-10	R1449889
Ion Balance Calculation								
Ion Balance		Low EC			%		21-SEP-10	
TDS (Calculated)		36.0			mg/L		21-SEP-10	
Hardness (as CaCO3)		24.2			mg/L		21-SEP-10	
Nitrate+Nitrite-N								
Nitrate+Nitrite-N		0.0647		0.0060	mg/L		26-AUG-10	R1451272
Nitrate-N								
Nitrate-N		0.0647		0.0060	mg/L		26-AUG-10	R1451272
Nitrite-N								
Nitrite-N		<0.0020		0.0020	mg/L		26-AUG-10	R1451272
Sulfate by IC (Low Level)								
Sulfate (SO4)		23.7		0.050	mg/L		26-AUG-10	R1449889
pH, Conductivity and Total Alkalinity								
pH		6.69		0.10	pH		26-AUG-10	R1450345
Conductivity (EC)		71.6		0.20	uS/cm		26-AUG-10	R1450345
Bicarbonate (HCO3)		5.2		5.0	mg/L		26-AUG-10	R1450345
Carbonate (CO3)		<5.0		5.0	mg/L		26-AUG-10	R1450345
Hydroxide (OH)		<5.0		5.0	mg/L		26-AUG-10	R1450345
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		26-AUG-10	R1450345
L923781-2 SCF1- EXPOSURE AREA SURFACE WATER								
Sampled By: TH/SW on 23-AUG-10 @ 10:00								
Matrix: WATER								
Dissolved Metals								
Diss. Metals in Water by ICPMS (Low)								

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-2 SCF1- EXPOSURE AREA SURFACE WATER								
Sampled By: TH/SW on 23-AUG-10 @ 10:00								
Matrix: WATER								
Diss. Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved		0.054		0.010	mg/L		01-OCT-10	R1485147
Antimony (Sb)-Dissolved		<0.00040		0.00040	mg/L		01-OCT-10	R1485147
Arsenic (As)-Dissolved		0.00364		0.00040	mg/L		01-OCT-10	R1485147
Barium (Ba)-Dissolved		0.00831		0.00010	mg/L		01-OCT-10	R1485147
Beryllium (Be)-Dissolved		<0.00050		0.00050	mg/L		01-OCT-10	R1485147
Bismuth (Bi)-Dissolved		<0.000050		0.000050	mg/L		01-OCT-10	R1485147
Boron (B)-Dissolved		0.0056		0.0020	mg/L		01-OCT-10	R1485147
Cadmium (Cd)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Chromium (Cr)-Dissolved		<0.00040		0.00040	mg/L		01-OCT-10	R1485147
Cobalt (Co)-Dissolved		0.00245		0.00010	mg/L		01-OCT-10	R1485147
Copper (Cu)-Dissolved		0.00323		0.00060	mg/L		01-OCT-10	R1485147
Lead (Pb)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Molybdenum (Mo)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Nickel (Ni)-Dissolved		0.0247		0.00010	mg/L		01-OCT-10	R1485147
Selenium (Se)-Dissolved		<0.00040		0.00040	mg/L		01-OCT-10	R1485147
Silver (Ag)-Dissolved		<0.00020		0.00020	mg/L		01-OCT-10	R1485147
Strontium (Sr)-Dissolved		0.0265		0.00010	mg/L		01-OCT-10	R1485147
Thallium (Tl)-Dissolved		<0.000050		0.000050	mg/L		01-OCT-10	R1485147
Tin (Sn)-Dissolved		0.00047		0.00020	mg/L		01-OCT-10	R1485147
Titanium (Ti)-Dissolved		0.00061		0.00030	mg/L		01-OCT-10	R1485147
Uranium (U)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Vanadium (V)-Dissolved		<0.00010		0.00010	mg/L		01-OCT-10	R1485147
Zinc (Zn)-Dissolved		0.0169		0.0010	mg/L		01-OCT-10	R1485147
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total		0.112		0.020	mg/L		21-SEP-10	R1472084
Antimony (Sb)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Arsenic (As)-Total		0.00544		0.00040	mg/L		21-SEP-10	R1472084
Barium (Ba)-Total		0.00884		0.00020	mg/L		21-SEP-10	R1472084
Beryllium (Be)-Total		<0.0010		0.0010	mg/L		21-SEP-10	R1472084
Bismuth (Bi)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1472084
Boron (B)-Total		<0.020		0.020	mg/L		21-SEP-10	R1472084
Cadmium (Cd)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1472084
Chromium (Cr)-Total		<0.00080		0.00080	mg/L		21-SEP-10	R1472084
Cobalt (Co)-Total		0.00301		0.00020	mg/L		21-SEP-10	R1472084
Copper (Cu)-Total		0.0053		0.0010	mg/L		21-SEP-10	R1472084
Lead (Pb)-Total		0.00010		0.00010	mg/L		21-SEP-10	R1472084
Molybdenum (Mo)-Total		0.00014		0.00010	mg/L		21-SEP-10	R1472084
Nickel (Ni)-Total		0.0258		0.00020	mg/L		21-SEP-10	R1472084
Selenium (Se)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Silver (Ag)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Strontium (Sr)-Total		0.0265		0.00020	mg/L		21-SEP-10	R1472084
Thallium (Tl)-Total		<0.00010		0.00010	mg/L		21-SEP-10	R1472084
Tin (Sn)-Total		<0.00040		0.00040	mg/L		21-SEP-10	R1472084
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		21-SEP-10	R1472084
Uranium (U)-Total		<0.00010		0.00010	mg/L		21-SEP-10	R1472084
Vanadium (V)-Total		<0.00050		0.00050	mg/L		21-SEP-10	R1472084
Zinc (Zn)-Total		0.0136		0.0040	mg/L		21-SEP-10	R1472084
Total Metals in Water by ICPOES (Low)								
Calcium (Ca)-Total		4.89		0.50	mg/L		01-OCT-10	R1485205
Iron (Fe)-Total		0.463		0.010	mg/L		01-OCT-10	R1485205

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-2 SCF1- EXPOSURE AREA SURFACE WATER								
Sampled By: TH/SW on 23-AUG-10 @ 10:00								
Matrix: WATER								
Total Metals in Water by ICPOES (Low)								
Magnesium (Mg)-Total		2.34		0.10	mg/L		01-OCT-10	R1485205
Manganese (Mn)-Total		0.0356		0.0020	mg/L		01-OCT-10	R1485205
Potassium (K)-Total		0.37		0.10	mg/L		01-OCT-10	R1485205
Sodium (Na)-Total		2.2		1.0	mg/L		01-OCT-10	R1485205
Miscellaneous Parameters								
Ammonia-N		0.0141		0.0050	mg/L		01-SEP-10	R1455811
Cyanide, Total		<0.0020		0.0020	mg/L	09-SEP-10	09-SEP-10	R1461729
Cadmium (Cd)-Dissolved		0.000025		0.000010	mg/L		01-OCT-10	R1485147
Dissolved Organic Carbon		6.3		1.0	mg/L		17-SEP-10	R1467022
Mercury (Hg)-Total		0.000073		0.000020	mg/L		21-SEP-10	R1473467
Mercury (Hg)-Dissolved		<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Phosphorus, Total		0.0033		0.0010	mg/L		21-SEP-10	R1473265
Radium-226		See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total		0.000023		0.000010	mg/L		21-SEP-10	R1472084
Total Organic Carbon		6.5		1.0	mg/L		17-SEP-10	R1467022
Total Suspended Solids		<3.0		3.0	mg/L		27-AUG-10	R1451704
Routine Water Analysis - Low Level								
Chloride by IC								
Chloride (Cl)		1.15		0.50	mg/L		26-AUG-10	R1449889
Diss. Metals in Water by ICPOES (Low)								
Calcium (Ca)-Dissolved		5.59		0.50	mg/L		20-SEP-10	R1472095
Magnesium (Mg)-Dissolved		2.67		0.10	mg/L		20-SEP-10	R1472095
Potassium (K)-Dissolved		0.42		0.10	mg/L		20-SEP-10	R1472095
Sodium (Na)-Dissolved		2.3		1.0	mg/L		20-SEP-10	R1472095
Fluoride by IC								
Fluoride (F)		0.057		0.050	mg/L		26-AUG-10	R1449889
Ion Balance Calculation								
Ion Balance		Low EC			%		21-SEP-10	
TDS (Calculated)		36.6			mg/L		21-SEP-10	
Hardness (as CaCO3)		25.0			mg/L		21-SEP-10	
Nitrate+Nitrite-N								
Nitrate+Nitrite-N		0.0357		0.0060	mg/L		26-AUG-10	R1451272
Nitrate-N								
Nitrate-N		0.0357		0.0060	mg/L		26-AUG-10	R1451272
Nitrite-N								
Nitrite-N		<0.0020		0.0020	mg/L		26-AUG-10	R1451272
Sulfate by IC (Low Level)								
Sulfate (SO4)		24.3		0.050	mg/L		26-AUG-10	R1449889
pH, Conductivity and Total Alkalinity								
pH		6.76		0.10	pH		26-AUG-10	R1450345
Conductivity (EC)		71.5		0.20	uS/cm		26-AUG-10	R1450345
Bicarbonate (HCO3)		5.5		5.0	mg/L		26-AUG-10	R1450345
Carbonate (CO3)		<5.0		5.0	mg/L		26-AUG-10	R1450345
Hydroxide (OH)		<5.0		5.0	mg/L		26-AUG-10	R1450345
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		26-AUG-10	R1450345
L923781-3 FB- FIELD BLANK								
Sampled By: TH/SW on 23-AUG-10 @ 11:00								
Matrix: WATER								
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-3							
FB- FIELD BLANK							
Sampled By: TH/SW on 23-AUG-10 @ 11:00							
Matrix: WATER							
Diss. Metals in Water by ICPMS (Ultra)							
Aluminum (Al)-Dissolved	0.00212	RRV	0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved	0.000055	RRV	0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved	0.000159	RRV	0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved	<0.00020	RRV	0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved	0.0023	RRV	0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved	0.072	RRV	0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved	<0.000060	RRV	0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved	<0.00060	RRV	0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved	0.00044	RRV	0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved	0.0224	RRV	0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved	0.00036	RRV	0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved	<0.000060	RRV	0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved	0.000248	RRV	0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved	<0.020	RRV	0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved	0.0973	RRV	0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved	0.00024	RRV	0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved	0.00843	RRV	0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved	0.00013	RRV	0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved	<0.00080	RRV	0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)							
Iron (Fe)-Dissolved	<0.0050		0.0050	mg/L		20-SEP-10	R1472095
Ultra-Low Metals							
Fe in Water by ICPOES (Undigested)							
Iron (Fe)-Total	<0.0050		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)							
Aluminum (Al)-Total	0.00032	RRV	0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total	0.000071	RRV	0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total	<0.00020	RRV	0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total	0.0025	RRV	0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total	0.022	RRV	0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total	<0.000060	RRV	0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	<0.00060	RRV	0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00049	RRV	0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	<0.0040	RRV	0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	<0.000060	RRV	0.000060	mg/L		21-SEP-10	R1474628

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-3 FB- FIELD BLANK Sampled By: TH/SW on 23-AUG-10 @ 11:00 Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Nickel (Ni)-Total	<0.000060	RRV	0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	<0.020	RRV	0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	0.0742	RRV	0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030	RRV	0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	0.00850	RRV	0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	<0.00010	RRV	0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050	RRV	0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	<0.00080	RRV	0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	<0.0050		0.0050	mg/L		01-SEP-10	R1455811
Cyanide, Total	<0.0020		0.0020	mg/L	09-SEP-10	09-SEP-10	R1461729
Cadmium (Cd)-Dissolved	<0.000010		0.000010	mg/L		21-SEP-10	R1478372
Dissolved Organic Carbon	<1.0		1.0	mg/L		17-SEP-10	R1467022
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Phosphorus, Total	<0.0010		0.0010	mg/L		21-SEP-10	R1473265
Radium-226	See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L		21-SEP-10	R1472084
Total Organic Carbon	<1.0		1.0	mg/L		17-SEP-10	R1467022
Total Suspended Solids	<3.0		3.0	mg/L		27-AUG-10	R1451704
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		26-AUG-10	R1449889
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	<0.50		0.50	mg/L		20-SEP-10	R1472095
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L		20-SEP-10	R1472095
Potassium (K)-Dissolved	<0.10		0.10	mg/L		20-SEP-10	R1472095
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		20-SEP-10	R1472095
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		26-AUG-10	R1449889
Ion Balance Calculation							
Ion Balance	Low TDS			%		21-SEP-10	
TDS (Calculated)	<1.0			mg/L		21-SEP-10	
Hardness (as CaCO3)	<1.0			mg/L		21-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		26-AUG-10	R1451272
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		26-AUG-10	R1451272
Nitrite-N							
Nitrite-N	<0.0020		0.0020	mg/L		26-AUG-10	R1451272
Sulfate by IC (Low Level)							
Sulfate (SO4)	<0.050		0.050	mg/L		30-AUG-10	R1453429
pH, Conductivity and Total Alkalinity							
pH	6.20		0.10	pH		26-AUG-10	R1450345
Conductivity (EC)	0.92		0.20	uS/cm		26-AUG-10	R1450345
Bicarbonate (HCO3)	<5.0		5.0	mg/L		26-AUG-10	R1450345
Carbonate (CO3)	<5.0		5.0	mg/L		26-AUG-10	R1450345

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-3	FB- FIELD BLANK							
Sampled By: TH/SW on 23-AUG-10 @ 11:00								
Matrix: WATER								
pH, Conductivity and Total Alkalinity								
Hydroxide (OH)		<5.0		5.0	mg/L		26-AUG-10	R1450345
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		26-AUG-10	R1450345
L923781-4	TB- TRIP BLANK							
Sampled By: TH/SW on 23-AUG-10 @ 11:00								
Matrix: WATER								
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		<0.00030		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0022	RRV	0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		<0.020		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		<0.00060		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00048		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		<0.0040		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		<0.020		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		<0.0050		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		<0.0050		0.0050	mg/L		20-SEP-10	R1472095
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		<0.0050		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		<0.00030		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total		0.0021	RRV	0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total		<0.020		0.020	mg/L		21-SEP-10	R1474628

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-4 TB- TRIP BLANK							
Sampled By: TH/SW on 23-AUG-10 @ 11:00							
Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	<0.00060		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00045		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	<0.0040		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	<0.020		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	<0.0050		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	<0.0050		0.0050	mg/L		01-SEP-10	R1455811
Cyanide, Total	<0.0020		0.0020	mg/L	09-SEP-10	09-SEP-10	R1461729
Cadmium (Cd)-Dissolved	<0.000010		0.000010	mg/L		21-SEP-10	R1478372
Dissolved Organic Carbon	<1.0		1.0	mg/L		17-SEP-10	R1467022
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		21-SEP-10	R1473467
Phosphorus, Total	<0.0010		0.0010	mg/L		21-SEP-10	R1473265
Radium-226	See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L		21-SEP-10	R1472084
Total Organic Carbon	<1.0		1.0	mg/L		17-SEP-10	R1467022
Total Suspended Solids	<3.0		3.0	mg/L		27-AUG-10	R1451704
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		26-AUG-10	R1449889
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	<0.50		0.50	mg/L		20-SEP-10	R1472095
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L		20-SEP-10	R1472095
Potassium (K)-Dissolved	<0.10		0.10	mg/L		20-SEP-10	R1472095
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		20-SEP-10	R1472095
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		26-AUG-10	R1449889
Ion Balance Calculation							
Ion Balance	Low TDS			%		21-SEP-10	
TDS (Calculated)	<1.0			mg/L		21-SEP-10	
Hardness (as CaCO3)	<1.0			mg/L		21-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		26-AUG-10	R1451272
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		26-AUG-10	R1451272
Nitrite-N							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-8	SCP4- EXPOSURE AREA SEDIMENT							
Sampled By:	TH/SW on 23-AUG-10 @ 13:30							
Matrix:	SEDIMENT							
Metals in Soil by ICPMS								
Beryllium (Be)		<1.0		1.0	mg/kg		24-SEP-10	R1474744
Cadmium (Cd)		<0.50		0.50	mg/kg		24-SEP-10	R1474744
Chromium (Cr)		57.1		0.50	mg/kg		24-SEP-10	R1474744
Cobalt (Co)		16.9		1.0	mg/kg		24-SEP-10	R1474744
Copper (Cu)		22.3		2.0	mg/kg		24-SEP-10	R1474744
Iron (Fe)		17500		200	mg/kg		24-SEP-10	R1474744
Lead (Pb)		<5.0		5.0	mg/kg		24-SEP-10	R1474744
Molybdenum (Mo)		1.1		1.0	mg/kg		24-SEP-10	R1474744
Nickel (Ni)		47.4		2.0	mg/kg		24-SEP-10	R1474744
Selenium (Se)		<0.50		0.50	mg/kg		24-SEP-10	R1474744
Silver (Ag)		<1.0		1.0	mg/kg		24-SEP-10	R1474744
Strontium (Sr)		9.2		1.0	mg/kg		24-SEP-10	R1474744
Thallium (Tl)		<0.50		0.50	mg/kg		24-SEP-10	R1474744
Tin (Sn)		<5.0		5.0	mg/kg		24-SEP-10	R1474744
Uranium (U)		<2.0		2.0	mg/kg		24-SEP-10	R1474744
Vanadium (V)		33.2		1.0	mg/kg		24-SEP-10	R1474744
Zinc (Zn)		65		10	mg/kg		24-SEP-10	R1474744
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		07-SEP-10	R1459954
Particle Size								
% Sand		25.8		1.0	%		09-SEP-10	R1462061
% Silt		72.4		1.0	%		09-SEP-10	R1462061
% Clay		1.8		1.0	%		09-SEP-10	R1462061
Texture		Silt loam					09-SEP-10	R1462061
L923781-9	SCP5- EXPOSURE AREA SEDIMENT							
Sampled By:	TH/SW on 23-AUG-10 @ 15:00							
Matrix:	SEDIMENT							
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	08-SEP-10	08-SEP-10	R1460907
Total Organic Carbon		3.28		0.10	%	08-SEP-10	08-SEP-10	R1460907
CaCO3 Equivalent		<0.80		0.80	%	08-SEP-10	08-SEP-10	R1460907
Total Carbon by combustion method								
Total Carbon by Combustion		3.3		0.1	%	02-SEP-10	02-SEP-10	R1460903
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	20-SEP-10	22-SEP-10	R1474765
Metals in Soil by ICPMS								
Aluminum (Al)		14800		50	mg/kg		24-SEP-10	R1474744
Antimony (Sb)		<0.20		0.20	mg/kg		24-SEP-10	R1474744
Arsenic (As)		50.6		0.20	mg/kg		24-SEP-10	R1474744
Barium (Ba)		65.8		5.0	mg/kg		24-SEP-10	R1474744
Beryllium (Be)		<1.0		1.0	mg/kg		24-SEP-10	R1474744
Cadmium (Cd)		<0.50		0.50	mg/kg		24-SEP-10	R1474744
Chromium (Cr)		74.6		0.50	mg/kg		24-SEP-10	R1474744
Cobalt (Co)		25.2		1.0	mg/kg		24-SEP-10	R1474744
Copper (Cu)		31.2		2.0	mg/kg		24-SEP-10	R1474744
Iron (Fe)		23600		200	mg/kg		24-SEP-10	R1474744
Lead (Pb)		<5.0		5.0	mg/kg		24-SEP-10	R1474744
Molybdenum (Mo)		1.4		1.0	mg/kg		24-SEP-10	R1474744
Nickel (Ni)		62.0		2.0	mg/kg		24-SEP-10	R1474744

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L923781-9 SCP5- EXPOSURE AREA SEDIMENT								
Sampled By: TH/SW on 23-AUG-10 @ 15:00								
Matrix: SEDIMENT								
Metals in Soil by ICPMS								
Selenium (Se)		<0.50		0.50	mg/kg		24-SEP-10	R1474744
Silver (Ag)		<1.0		1.0	mg/kg		24-SEP-10	R1474744
Strontium (Sr)		11.5		1.0	mg/kg		24-SEP-10	R1474744
Thallium (Tl)		<0.50		0.50	mg/kg		24-SEP-10	R1474744
Tin (Sn)		<5.0		5.0	mg/kg		24-SEP-10	R1474744
Uranium (U)		<2.0		2.0	mg/kg		24-SEP-10	R1474744
Vanadium (V)		42.2		1.0	mg/kg		24-SEP-10	R1474744
Zinc (Zn)		81		10	mg/kg		24-SEP-10	R1474744
Miscellaneous Parameters								
Fragments > 2mm		2.1		1.0	%		07-SEP-10	R1459954
Particle Size								
% Sand		9.4		1.0	%		09-SEP-10	R1462061
% Silt		85.4		1.0	%		09-SEP-10	R1462061
% Clay		5.2		1.0	%		09-SEP-10	R1462061
Texture		Silt					09-SEP-10	R1462061

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Chloride (Cl)	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Chloride (Cl)	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Total Organic Carbon	MS-B	L923781-1, -2, -3, -4
Matrix Spike	Dissolved Organic Carbon	MS-B	L923781-1, -2, -3, -4

Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L923781-1	SCP1- EXPOSURE AREA SI	SP	TOC - Sample was Preserved at the laboratory
L923781-2	SCF1- EXPOSURE AREA SI	SP	TOC - Sample was Preserved at the laboratory

Sample Parameter Qualifier Key:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-DIS-ORG-ED	Water	Dissolved Organic Carbon	APHA 5310 B-Instrumental
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO2 loss is proportional to the carbonate content of the soil.

Reference:
Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-LECO-SK Soil Total Carbon by combustion method SSSA (1996) P. 973-974

The sample is introduced into a quartz tube where it undergoes combustion at 900 °C in the presence of oxygen. Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen. This mixture of N2, CO2, and H2O is then passed through an absorber column containing magnesium perchlorate to remove water. N2 and CO2 gases are then separated in a gas chromatographic column and detected by thermal conductivity.

Reference:
Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-ORG-ED	Water	Total Organic Carbon	APHA 5310 B-Instrumental
CD-D-CCME-FAL-MS-ED	Water	Diss. Cd in Water by ICPMS (CCME - FAL)	APHA 3125-ICP-MS
CD-T-CCME-FAL-MS-ED	Water	Total Cd in Water by ICPMS (CCME - FAL)	APHA 3125-ICP-MS
CL-IC-ED	Water	Chloride by IC	APHA 4110 B-ION CHROMATOGRAPHY
CN-TOT-WT	Water	Cyanide, Total	APHA 4500CN C E-STRONG ACID DIST COLORIM
Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.			
F-IC-ED	Water	Fluoride by IC	APHA 4110 B-ION CHROMATOGRAPHY
FE-D-NP-U-ICP-ED	Water	Dissolved Fe in Water by ICPOES (Ultra)	APHA 3120 B-ICP-OES

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
FE-T-NP-U-ICP-ED	Water	Fe in Water by ICPOES (Undigested)	APHA 3120 B-ICP-OES
Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine non-turbid acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
HG-200.2-CVAA-ED	Soil	Mercury in Soil by CVAAS	EPA 200.2/245.1
Test method is based on US EPA Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements", and meets all requirements of BC CSR Analytical Method 8 "Strong Acid Leachable Metals (SALM) in Soil", BC MOE, June 26, 2001. Soil is dried at <60°C and digested with nitric and hydrochloric acids, prior to analysis for mercury by cold vapour atomic absorption.			
HG-D-L-CVAA-ED	Water	Mercury (Hg) - Dissolved	EPA 245.7 / EPA 245.1
HG-T-L-CVAA-ED	Water	Mercury (Hg)	EPA 245.7 / EPA 245.1
IONBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-200.2-MS-ED	Soil	Metals in Soil by ICPMS	EPA 200.2/6020A
MET-D-L-ICP-ED	Water	Diss. Metals in Water by ICPOES (Low)	APHA 3120 B-ICP-OES
MET-D-L-MS-ED	Water	Diss. Metals in Water by ICPMS (Low)	SW 846 - 6020-ICPMS
MET-D-NP-U-MS-ED	Water	Diss. Metals in Water by ICPMS (Ultra)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
MET-T-L-ICP-ED	Water	Total Metals in Water by ICPOES (Low)	APHA 3120 B-ICP-OES
MET-T-L-MS-ED	Water	Total Metals in Water by ICPMS (Low)	SW 846 - 6020-ICPMS
MET-T-NP-U-MS-ED	Water	Metals in Water by ICPMS (Undigested)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
N2N3-LOW-ED	Water	Nitrate+Nitrite-N	APHA 4500 NO3E-Colorimetry
NH4-LOW-ED	Water	Ammonia-N Low Level	APHA 4500 NH3F-Colorimetry
NO2-LOW-ED	Water	Nitrite-N	APHA 4500 NO2B-Colorimetry
NO3-LOW-ED	Water	Nitrate-N	APHA 4500 NO3H-Colorimetry
P-TOTAL-LOW-ED	Water	Phosphorus, Total- Low Level	APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
PSA-1-ED	Soil	Particle Size	CSSS 47.3 - Hydrometer
PSA-COARSE_FRAGS-ED	Soil	Fragments >2mm (Cobbles and Stones)	CSSS 47.4
RAD-RA226-BE	Water	Radium 226 (Becquerel)	MODIFIED EPA.903.0
SO4-L-IC-ED	Water	Sulfate by IC (Low Level)	APHA 4110 B-ION CHROMATOGRAPHY
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
----------------------------	---------------------

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ED		ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA	
SK		ALS LABORATORY GROUP - SASKATOON, SASKATCHEWAN, CANADA	
WT		ALS LABORATORY GROUP - WATERLOO, ONTARIO, CANADA	
BE		Bequerel Laboratories Inc. - Mississauga, Ontario, Canada	

Chain of Custody Numbers:

062778

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L923781

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-DIS-ORG-ED		Water						
Batch	R1467022							
WG1167341-10	CVS							
Dissolved Organic Carbon			120		%		80-160	16-SEP-10
WG1167341-25	CVS							
Dissolved Organic Carbon			96		%		80-160	18-SEP-10
WG1167341-3	CVS							
Dissolved Organic Carbon			126		%		80-160	15-SEP-10
WG1167341-32	CVS							
Dissolved Organic Carbon			102		%		80-160	20-SEP-10
WG1167341-41	CVS							
Dissolved Organic Carbon			118		%		80-160	21-SEP-10
WG1167341-1	LCS							
Dissolved Organic Carbon			96		%		80-120	15-SEP-10
WG1167341-16	LCS							
Dissolved Organic Carbon			107		%		80-120	17-SEP-10
WG1167341-24	LCS							
Dissolved Organic Carbon			105		%		80-120	18-SEP-10
WG1167341-31	LCS							
Dissolved Organic Carbon			95		%		80-120	20-SEP-10
WG1167341-40	LCS							
Dissolved Organic Carbon			104		%		80-120	21-SEP-10
WG1167341-9	LCS							
Dissolved Organic Carbon			109		%		80-120	16-SEP-10
WG1167341-15	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	17-SEP-10
WG1167341-2	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	15-SEP-10
WG1167341-23	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	18-SEP-10
WG1167341-30	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	20-SEP-10
WG1167341-39	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	21-SEP-10
WG1167341-8	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	16-SEP-10
WG1167341-29	MS	L931796-1						
Dissolved Organic Carbon			94		%		70-130	18-SEP-10
WG1167341-36	MS	L930050-9						
Dissolved Organic Carbon			N/A	MS-B	%		-	21-SEP-10
WG1167341-43	MS	L930050-52						



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-DIS-ORG-ED								
Water								
Batch	R1467022							
WG1167341-43 MS		L930050-52						
Dissolved Organic Carbon			103		%		70-130	21-SEP-10
C-TOT-ORG-ED								
Water								
Batch	R1467022							
WG1167341-10 CVS								
Total Organic Carbon			120		%		80-160	17-SEP-10
WG1167341-25 CVS								
Total Organic Carbon			96		%		80-160	20-SEP-10
WG1167341-3 CVS								
Total Organic Carbon			126		%		80-160	16-SEP-10
WG1167341-32 CVS								
Total Organic Carbon			102		%		80-160	20-SEP-10
WG1167341-41 CVS								
Total Organic Carbon			118		%		80-160	21-SEP-10
WG1167341-19 DUP		L923781-4						
Total Organic Carbon		<1.0	<1.0	RPD-NA	mg/L	N/A	20	17-SEP-10
WG1167341-1 LCS								
Total Organic Carbon			96		%		80-120	15-SEP-10
WG1167341-16 LCS								
Total Organic Carbon			107		%		80-120	17-SEP-10
WG1167341-24 LCS								
Total Organic Carbon			105		%		80-120	20-SEP-10
WG1167341-31 LCS								
Total Organic Carbon			95		%		80-120	20-SEP-10
WG1167341-40 LCS								
Total Organic Carbon			104		%		80-120	21-SEP-10
WG1167341-9 LCS								
Total Organic Carbon			109		%		80-120	17-SEP-10
WG1167341-15 MB								
Total Organic Carbon			<1.0		mg/L		1	17-SEP-10
WG1167341-2 MB								
Total Organic Carbon			<1.0		mg/L		1	15-SEP-10
WG1167341-23 MB								
Total Organic Carbon			<1.0		mg/L		1	18-SEP-10
WG1167341-30 MB								
Total Organic Carbon			<1.0		mg/L		1	20-SEP-10
WG1167341-39 MB								
Total Organic Carbon			<1.0		mg/L		1	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-ED		Water						
Batch R1467022								
WG1167341-8 MB								
Total Organic Carbon			<1.0		mg/L		1	16-SEP-10
WG1167341-12 MS		L927580-1						
Total Organic Carbon			84		%		70-130	16-SEP-10
WG1167341-14 MS		L930820-9						
Total Organic Carbon			N/A	MS-B	%		-	16-SEP-10
WG1167341-18 MS		L928383-5						
Total Organic Carbon			N/A	MS-B	%		-	17-SEP-10
WG1167341-20 MS		L923781-4						
Total Organic Carbon			104		%		70-130	17-SEP-10
WG1167341-22 MS		L928611-4						
Total Organic Carbon			107		%		70-130	18-SEP-10
WG1167341-27 MS		L931645-1						
Total Organic Carbon			N/A	MS-B	%		-	18-SEP-10
WG1167341-34 MS		L930003-6						
Total Organic Carbon			96		%		70-130	20-SEP-10
WG1167341-38 MS		L929222-1						
Total Organic Carbon			N/A	MS-B	%		-	20-SEP-10
WG1167341-5 MS		L926789-30						
Total Organic Carbon			N/A	MS-B	%		-	15-SEP-10
WG1167341-7 MS		L926789-41						
Total Organic Carbon			N/A	MS-B	%		-	15-SEP-10
CD-D-CCME-FAL-MS-ED		Water						
Batch R1478372								
WG1173819-2 CRM		1643E_WATER						
Cadmium (Cd)-Dissolved			105		%		80-120	21-SEP-10
WG1173819-1 MB								
Cadmium (Cd)-Dissolved			<0.000010		mg/L		0.00001	21-SEP-10
Batch R1485147								
WG1176990-2 CRM		1643E_WATER						
Cadmium (Cd)-Dissolved			102		%		80-120	01-OCT-10
WG1176990-1 MB								
Cadmium (Cd)-Dissolved			<0.000010		mg/L		0.00001	01-OCT-10
CD-T-CCME-FAL-MS-ED		Water						
Batch R1472084								
WG1170318-5 DUP		L923781-1						
Cadmium (Cd)-Total		0.000023	0.000022		mg/L	4.4	20	21-SEP-10
WG1170318-3 LCS								



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CD-T-CCME-FAL-MS-ED								
Batch R1472084								
WG1170318-3	LCS							
Cadmium (Cd)-Total			101		%		80-120	21-SEP-10
WG1170318-4	LCS							
Cadmium (Cd)-Total			101		%		80-120	21-SEP-10
WG1170032-1	MB							
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	21-SEP-10
WG1170318-1	MB							
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	21-SEP-10
WG1170318-2	MB							
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	21-SEP-10
WG1170318-6	MS	L923781-1						
Cadmium (Cd)-Total			103		%		70-130	21-SEP-10
CL-IC-ED								
Batch R1449889								
WG1156076-2	LCS							
Chloride (Cl)			110		%		85-115	25-AUG-10
WG1156076-1	MB							
Chloride (Cl)			<0.50		mg/L		0.5	25-AUG-10
WG1156076-10	MS	L917893-13						
Chloride (Cl)			N/A	MS-B	%		-	26-AUG-10
WG1156076-12	MS	L924331-1						
Chloride (Cl)			N/A	MS-B	%		-	25-AUG-10
WG1156076-4	MS	L922913-8						
Chloride (Cl)			109		%		75-125	25-AUG-10
WG1156076-6	MS	L923785-15						
Chloride (Cl)			107		%		75-125	25-AUG-10
CN-TOT-WT								
Batch R1461729								
WG1163721-4	CVS							
Cyanide, Total			90		%		85-115	09-SEP-10
WG1163721-3	LCS							
Cyanide, Total			97		%		80-120	09-SEP-10
WG1163721-1	MB							
Cyanide, Total			<0.0020		mg/L		0.002	09-SEP-10
F-IC-ED								
Batch R1461729								



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-ED								
Water								
Batch	R1449889							
WG1156076-2	LCS							
Fluoride (F)			108		%		85-115	25-AUG-10
WG1156076-1	MB							
Fluoride (F)			<0.050		mg/L		0.05	25-AUG-10
WG1156076-4	MS	L922913-8						
Fluoride (F)			110		%		75-125	25-AUG-10
FE-D-NP-U-ICP-ED								
Water								
Batch	R1472095							
WG1169731-2	CRM	EU-H-3_OPTWATER						
WG1169731-11	DUP	L923781-4						
Iron (Fe)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-SEP-10
WG1169731-9	DUP	L923781-3						
Iron (Fe)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-SEP-10
WG1169731-1	MB							
Iron (Fe)-Dissolved			0.0053		mg/L		0.005	20-SEP-10
WG1169731-10	MS	L923781-3						
Iron (Fe)-Dissolved			105		%		70-130	20-SEP-10
WG1169731-12	MS	L923781-4						
Iron (Fe)-Dissolved			106		%		70-130	20-SEP-10
FE-T-NP-U-ICP-ED								
Water								
Batch	R1473907							
WG1170911-1	MB							
Iron (Fe)-Total			<0.0050		mg/L		0.005	22-SEP-10
HG-D-L-CVAA-ED								
Water								
Batch	R1473467							
WG1170544-4	DUP	L923781-3						
Mercury (Hg)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	21-SEP-10
WG1170544-2	LCS							
Mercury (Hg)-Dissolved			99		%		80-120	21-SEP-10
WG1170544-3	LCSD	WG1170544-2						
Mercury (Hg)-Dissolved		99	97		%	2.4	20	21-SEP-10
WG1170544-1	MB							
Mercury (Hg)-Dissolved			<0.000020		mg/L		0.00002	21-SEP-10
WG1170544-5	MS	L923781-3						
Mercury (Hg)-Dissolved			114		%		70-130	21-SEP-10
WG1170544-7	MS	L929483-5						
Mercury (Hg)-Dissolved			106		%		70-130	22-SEP-10

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-L-CVAA-ED		Water						
Batch	R1473467							
WG1170544-2	LCS							
Mercury (Hg)-Total			99		%		80-120	21-SEP-10
WG1170544-3	LCSD	WG1170544-2						
Mercury (Hg)-Total		99	97		%	2.4	20	21-SEP-10
WG1170544-1	MB							
Mercury (Hg)-Total			<0.000020		mg/L		0.00002	21-SEP-10
MET-D-L-ICP-ED		Water						
Batch	R1472095							
WG1169731-2	CRM							
WG1169731-11	DUP							
Calcium (Ca)-Dissolved		EU-H-3 OPTWATER						
		L923781-4						
Calcium (Ca)-Dissolved		<0.50	<0.20	RPD-NA	mg/L	N/A	20	20-SEP-10
Magnesium (Mg)-Dissolved		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-SEP-10
Potassium (K)-Dissolved		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-SEP-10
Sodium (Na)-Dissolved		<1.0	<0.50	RPD-NA	mg/L	N/A	20	20-SEP-10
WG1169731-9	DUP	L923781-3						
Calcium (Ca)-Dissolved		<0.50	<0.20	RPD-NA	mg/L	N/A	20	20-SEP-10
Magnesium (Mg)-Dissolved		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-SEP-10
Potassium (K)-Dissolved		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-SEP-10
Sodium (Na)-Dissolved		<1.0	<0.50	RPD-NA	mg/L	N/A	20	20-SEP-10
WG1169731-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	20-SEP-10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	20-SEP-10
Potassium (K)-Dissolved			<0.1		mg/L		0.1	20-SEP-10
Sodium (Na)-Dissolved			<0.50		mg/L		0.5	20-SEP-10
WG1169731-10	MS	L923781-3						
Calcium (Ca)-Dissolved			98		%		70-130	20-SEP-10
Magnesium (Mg)-Dissolved			101		%		70-130	20-SEP-10
Potassium (K)-Dissolved			95		%		70-130	20-SEP-10
Sodium (Na)-Dissolved			99		%		70-130	20-SEP-10
WG1169731-12	MS	L923781-4						
Calcium (Ca)-Dissolved			100		%		70-130	20-SEP-10
Magnesium (Mg)-Dissolved			101		%		70-130	20-SEP-10
Potassium (K)-Dissolved			97		%		70-130	20-SEP-10
Sodium (Na)-Dissolved			101		%		70-130	20-SEP-10
WG1169731-14	MS	L930832-6						
Calcium (Ca)-Dissolved			89		%		70-130	20-SEP-10
Magnesium (Mg)-Dissolved			91		%		70-130	20-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-L-ICP-ED								
Water								
Batch	R1472095							
WG1169731-14 MS		L930832-6						
Potassium (K)-Dissolved			81		%		70-130	20-SEP-10
Sodium (Na)-Dissolved			88		%		70-130	20-SEP-10
MET-D-L-MS-ED								
Water								
Batch	R1485147							
WG1176990-2 CRM		1643E_WATER						
Aluminum (Al)-Dissolved			103		%		80-120	01-OCT-10
Antimony (Sb)-Dissolved			97		%		80-120	01-OCT-10
Arsenic (As)-Dissolved			96		%		80-120	01-OCT-10
Barium (Ba)-Dissolved			95		%		80-120	01-OCT-10
Beryllium (Be)-Dissolved			89		%		80-120	01-OCT-10
Bismuth (Bi)-Dissolved			95		%		80-120	01-OCT-10
Boron (B)-Dissolved			99		%		80-120	01-OCT-10
Cadmium (Cd)-Dissolved			102		%		80-120	01-OCT-10
Chromium (Cr)-Dissolved			98		%		80-120	01-OCT-10
Cobalt (Co)-Dissolved			103		%		80-120	01-OCT-10
Copper (Cu)-Dissolved			98		%		80-120	01-OCT-10
Lead (Pb)-Dissolved			97		%		80-120	01-OCT-10
Molybdenum (Mo)-Dissolved			103		%		80-120	01-OCT-10
Nickel (Ni)-Dissolved			100		%		80-120	01-OCT-10
Selenium (Se)-Dissolved			93		%		80-120	01-OCT-10
Strontium (Sr)-Dissolved			97		%		80-120	01-OCT-10
Thallium (Tl)-Dissolved			103		%		80-120	01-OCT-10
Vanadium (V)-Dissolved			99		%		80-120	01-OCT-10
Zinc (Zn)-Dissolved			97		%		80-120	01-OCT-10
WG1176990-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	01-OCT-10
Antimony (Sb)-Dissolved			<0.00040		mg/L		0.0004	01-OCT-10
Arsenic (As)-Dissolved			<0.00040		mg/L		0.0004	01-OCT-10
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Beryllium (Be)-Dissolved			<0.00050		mg/L		0.0005	01-OCT-10
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	01-OCT-10
Boron (B)-Dissolved			<0.0020		mg/L		0.002	01-OCT-10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	01-OCT-10
Chromium (Cr)-Dissolved			<0.00040		mg/L		0.0004	01-OCT-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-L-MS-ED		Water						
Batch	R1485147							
WG1176990-1 MB								
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	01-OCT-10
Lead (Pb)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Molybdenum (Mo)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Nickel (Ni)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Selenium (Se)-Dissolved			<0.00040		mg/L		0.0004	01-OCT-10
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Thallium (Tl)-Dissolved			<0.000050		mg/L		0.00005	01-OCT-10
Tin (Sn)-Dissolved			<0.00020		mg/L		0.0002	01-OCT-10
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	01-OCT-10
Uranium (U)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Vanadium (V)-Dissolved			<0.00010		mg/L		0.0001	01-OCT-10
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	01-OCT-10
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E WATER						
Aluminum (Al)-Dissolved			108		%		80-120	21-SEP-10
Antimony (Sb)-Dissolved			97		%		80-120	21-SEP-10
Arsenic (As)-Dissolved			102		%		80-120	21-SEP-10
Barium (Ba)-Dissolved			104		%		80-120	21-SEP-10
Beryllium (Be)-Dissolved			103		%		80-120	21-SEP-10
Bismuth (Bi)-Dissolved			103		%		80-120	21-SEP-10
Boron (B)-Dissolved			95		%		80-120	21-SEP-10
Cadmium (Cd)-Dissolved			105		%		80-120	21-SEP-10
Calcium (Ca)-Dissolved			96		%		80-120	21-SEP-10
Chromium (Cr)-Dissolved			104		%		80-120	21-SEP-10
Cobalt (Co)-Dissolved			97		%		80-120	21-SEP-10
Copper (Cu)-Dissolved			104		%		80-120	21-SEP-10
Lead (Pb)-Dissolved			98		%		80-120	21-SEP-10
Lithium (Li)-Dissolved			115		%		80-120	21-SEP-10
Magnesium (Mg)-Dissolved			104		%		80-120	21-SEP-10
Manganese (Mn)-Dissolved			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Dissolved			98		%		80-120	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Nickel (Ni)-Dissolved			103		%		80-120	21-SEP-10
Potassium (K)-Dissolved			95		%		80-120	21-SEP-10
Selenium (Se)-Dissolved			106		%		80-120	21-SEP-10
Sodium (Na)-Dissolved			104		%		80-120	21-SEP-10
Strontium (Sr)-Dissolved			104		%		80-120	21-SEP-10
Thallium (Tl)-Dissolved			100		%		80-120	21-SEP-10
Vanadium (V)-Dissolved			101		%		80-120	21-SEP-10
Zinc (Zn)-Dissolved			110		%		80-120	21-SEP-10
WG1170506-1 MB								
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	21-SEP-10
Antimony (Sb)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Arsenic (As)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Beryllium (Be)-Dissolved			<0.00020		mg/L		0.0002	21-SEP-10
Bismuth (Bi)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Boron (B)-Dissolved			<0.0010		mg/L		0.001	21-SEP-10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	21-SEP-10
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Lithium (Li)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	21-SEP-10
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Nickel (Ni)-Dissolved			<0.00006		mg/L		0.00006	21-SEP-10
Potassium (K)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Selenium (Se)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	21-SEP-10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Thallium (Tl)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED								
Water								
Batch R1474628								
WG1170506-1 MB								
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Uranium (U)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	21-SEP-10
MET-T-L-ICP-ED								
Water								
Batch R1485205								
WG1170318-5 DUP								
Calcium (Ca)-Total		L923781-1	5.34	4.94	mg/L	7.9	20	01-OCT-10
Iron (Fe)-Total			0.382	0.350	mg/L	8.9	20	01-OCT-10
Magnesium (Mg)-Total			2.59	2.38	mg/L	8.2	20	01-OCT-10
Manganese (Mn)-Total			0.0360	0.0332	mg/L	8.1	20	01-OCT-10
Potassium (K)-Total			0.13	0.13	mg/L	0.0	20	01-OCT-10
Sodium (Na)-Total			2.3	2.1	mg/L	7.7	20	01-OCT-10
WG1170318-1 MB								
Calcium (Ca)-Total			<0.50		mg/L		0.5	01-OCT-10
Iron (Fe)-Total			<0.010		mg/L		0.01	01-OCT-10
Magnesium (Mg)-Total			<0.10		mg/L		0.1	01-OCT-10
Manganese (Mn)-Total			<0.0020		mg/L		0.002	01-OCT-10
Potassium (K)-Total			<0.10		mg/L		0.1	01-OCT-10
Sodium (Na)-Total			<1.0		mg/L		1	01-OCT-10
WG1170318-6 MS								
Calcium (Ca)-Total		L923781-1		89	%		70-130	01-OCT-10
Iron (Fe)-Total				85	%		70-130	01-OCT-10
Magnesium (Mg)-Total				89	%		70-130	01-OCT-10
Manganese (Mn)-Total				89	%		70-130	01-OCT-10
Potassium (K)-Total				90	%		70-130	01-OCT-10
Sodium (Na)-Total				85	%		70-130	01-OCT-10
MET-T-L-MS-ED								
Water								
Batch R1472084								
WG1170318-5 DUP								
Aluminum (Al)-Total		L923781-1	0.074	0.074	mg/L	0.49	20	21-SEP-10
Antimony (Sb)-Total			<0.00040	<0.00040	RPD-NA mg/L	N/A	20	21-SEP-10
Arsenic (As)-Total			0.00406	0.00403	mg/L	0.62	20	21-SEP-10
Barium (Ba)-Total			0.00845	0.00828	mg/L	2.0	20	21-SEP-10
Beryllium (Be)-Total			<0.0010	<0.0010	RPD-NA mg/L	N/A	20	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED								
Water								
Batch	R1472084							
WG1170318-5	DUP	L923781-1						
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	21-SEP-10
Boron (B)-Total		<0.020	0.0058		mg/L	3.4	20	21-SEP-10
Cadmium (Cd)-Total		<0.00020	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Chromium (Cr)-Total		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	21-SEP-10
Cobalt (Co)-Total		0.00261	0.00261		mg/L	0.038	20	21-SEP-10
Copper (Cu)-Total		0.0035	0.0036		mg/L	1.6	20	21-SEP-10
Lead (Pb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Molybdenum (Mo)-Total		0.00010	0.00010		mg/L	0.0	20	21-SEP-10
Nickel (Ni)-Total		0.0255	0.0252		mg/L	0.84	20	21-SEP-10
Selenium (Se)-Total		<0.00040	<0.00040	RPD-NA	mg/L	N/A	20	21-SEP-10
Silver (Ag)-Total		<0.00040	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Strontium (Sr)-Total		0.0266	0.0268		mg/L	0.63	20	21-SEP-10
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Tin (Sn)-Total		<0.00040	<0.00040	RPD-NA	mg/L	N/A	20	21-SEP-10
Titanium (Ti)-Total		<0.0050	0.00094		mg/L	5.7	20	21-SEP-10
Uranium (U)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	21-SEP-10
Zinc (Zn)-Total		0.0130	0.0129		mg/L	0.65	20	21-SEP-10
WG1170318-3	LCS							
Aluminum (Al)-Total			105		%		80-120	21-SEP-10
Antimony (Sb)-Total			104		%		80-120	21-SEP-10
Arsenic (As)-Total			98		%		80-120	21-SEP-10
Barium (Ba)-Total			104		%		80-120	21-SEP-10
Beryllium (Be)-Total			105		%		80-120	21-SEP-10
Bismuth (Bi)-Total			104		%		80-120	21-SEP-10
Boron (B)-Total			98		%		80-120	21-SEP-10
Cadmium (Cd)-Total			101		%		80-120	21-SEP-10
Chromium (Cr)-Total			106		%		80-120	21-SEP-10
Cobalt (Co)-Total			105		%		80-120	21-SEP-10
Copper (Cu)-Total			96		%		80-120	21-SEP-10
Lead (Pb)-Total			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Total			113		%		80-120	21-SEP-10
Nickel (Ni)-Total			99		%		80-120	21-SEP-10
Selenium (Se)-Total			92		%		80-120	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED		Water						
Batch	R1472084							
WG1170318-3	LCS							
Silver (Ag)-Total			102		%		80-120	21-SEP-10
Strontium (Sr)-Total			103		%		80-120	21-SEP-10
Thallium (Tl)-Total			106		%		80-120	21-SEP-10
Tin (Sn)-Total			106		%		80-120	21-SEP-10
Titanium (Ti)-Total			110		%		80-120	21-SEP-10
Uranium (U)-Total			115		%		80-120	21-SEP-10
Vanadium (V)-Total			104		%		80-120	21-SEP-10
Zinc (Zn)-Total			84		%		80-120	21-SEP-10
WG1170318-4	LCS							
Aluminum (Al)-Total			106		%		80-120	21-SEP-10
Antimony (Sb)-Total			104		%		80-120	21-SEP-10
Arsenic (As)-Total			99		%		80-120	21-SEP-10
Barium (Ba)-Total			104		%		80-120	21-SEP-10
Beryllium (Be)-Total			103		%		80-120	21-SEP-10
Bismuth (Bi)-Total			104		%		80-120	21-SEP-10
Boron (B)-Total			101		%		80-120	21-SEP-10
Cadmium (Cd)-Total			101		%		80-120	21-SEP-10
Chromium (Cr)-Total			107		%		80-120	21-SEP-10
Cobalt (Co)-Total			105		%		80-120	21-SEP-10
Copper (Cu)-Total			97		%		80-120	21-SEP-10
Lead (Pb)-Total			103		%		80-120	21-SEP-10
Molybdenum (Mo)-Total			114		%		80-120	21-SEP-10
Nickel (Ni)-Total			98		%		80-120	21-SEP-10
Selenium (Se)-Total			93		%		80-120	21-SEP-10
Silver (Ag)-Total			103		%		80-120	21-SEP-10
Strontium (Sr)-Total			102		%		80-120	21-SEP-10
Thallium (Tl)-Total			107		%		80-120	21-SEP-10
Tin (Sn)-Total			108		%		80-120	21-SEP-10
Titanium (Ti)-Total			111		%		80-120	21-SEP-10
Uranium (U)-Total			116		%		80-120	21-SEP-10
Vanadium (V)-Total			106		%		80-120	21-SEP-10
Zinc (Zn)-Total			84		%		80-120	21-SEP-10
WG1170032-1	MB							
Aluminum (Al)-Total			<0.010		mg/L		0.01	21-SEP-10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	21-SEP-10



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MET-T-L-MS-ED	Water							
Batch	R1472084							
WG1170032-1 MB								
Arsenic (As)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	21-SEP-10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Boron (B)-Total			<0.0040		mg/L		0.004	21-SEP-10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	21-SEP-10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Copper (Cu)-Total			<0.0010		mg/L		0.001	21-SEP-10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	21-SEP-10
Uranium (U)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	21-SEP-10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	21-SEP-10
WG1170318-1 MB								
Aluminum (Al)-Total			<0.010		mg/L		0.01	21-SEP-10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	21-SEP-10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Boron (B)-Total			<0.0040		mg/L		0.004	21-SEP-10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	21-SEP-10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Copper (Cu)-Total			<0.0010		mg/L		0.001	21-SEP-10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	21-SEP-10

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED		Water						
Batch	R1472084							
WG1170318-1 MB								
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	21-SEP-10
Uranium (U)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	21-SEP-10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	21-SEP-10
WG1170318-2 MB								
Aluminum (Al)-Total			<0.010		mg/L		0.01	21-SEP-10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	21-SEP-10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Boron (B)-Total			<0.0040		mg/L		0.004	21-SEP-10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	21-SEP-10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Copper (Cu)-Total			<0.0010		mg/L		0.001	21-SEP-10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	21-SEP-10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	21-SEP-10
Uranium (U)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED								
Water								
Batch	R1472084							
WG1170318-2 MB								
Zinc (Zn)-Total			<0.0040		mg/L		0.004	21-SEP-10
WG1170032-3 MS		L930832-4						
Aluminum (Al)-Total			107		%		70-130	21-SEP-10
Antimony (Sb)-Total			104		%		70-130	21-SEP-10
Arsenic (As)-Total			101		%		70-130	21-SEP-10
Barium (Ba)-Total			103		%		70-130	21-SEP-10
Beryllium (Be)-Total			105		%		70-130	21-SEP-10
Bismuth (Bi)-Total			105		%		70-130	21-SEP-10
Boron (B)-Total			102		%		70-130	21-SEP-10
Cadmium (Cd)-Total			103		%		70-130	21-SEP-10
Chromium (Cr)-Total			102		%		70-130	21-SEP-10
Cobalt (Co)-Total			97		%		70-130	21-SEP-10
Copper (Cu)-Total			94		%		70-130	21-SEP-10
Lead (Pb)-Total			105		%		70-130	21-SEP-10
Molybdenum (Mo)-Total			105		%		70-130	21-SEP-10
Nickel (Ni)-Total			96		%		70-130	21-SEP-10
Selenium (Se)-Total			104		%		70-130	21-SEP-10
Silver (Ag)-Total			102		%		70-130	21-SEP-10
Strontium (Sr)-Total			97		%		70-130	21-SEP-10
Thallium (Tl)-Total			107		%		70-130	21-SEP-10
Tin (Sn)-Total			104		%		70-130	21-SEP-10
Titanium (Ti)-Total			104		%		70-130	21-SEP-10
Uranium (U)-Total			101		%		70-130	21-SEP-10
Vanadium (V)-Total			104		%		70-130	21-SEP-10
Zinc (Zn)-Total			90		%		70-130	21-SEP-10
WG1170318-6 MS		L923781-1						
Aluminum (Al)-Total			104		%		70-130	21-SEP-10
Antimony (Sb)-Total			103		%		70-130	21-SEP-10
Arsenic (As)-Total			99		%		70-130	21-SEP-10
Barium (Ba)-Total			105		%		70-130	21-SEP-10
Beryllium (Be)-Total			107		%		70-130	21-SEP-10
Bismuth (Bi)-Total			109		%		70-130	21-SEP-10
Boron (B)-Total			99		%		70-130	21-SEP-10
Cadmium (Cd)-Total			103		%		70-130	21-SEP-10
Chromium (Cr)-Total			102		%		70-130	21-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED								
Water								
Batch	R1472084							
WG1170318-6 MS		L923781-1						
Cobalt (Co)-Total			101		%		70-130	21-SEP-10
Copper (Cu)-Total			96		%		70-130	21-SEP-10
Lead (Pb)-Total			108		%		70-130	21-SEP-10
Molybdenum (Mo)-Total			105		%		70-130	21-SEP-10
Nickel (Ni)-Total			96		%		70-130	21-SEP-10
Selenium (Se)-Total			96		%		70-130	21-SEP-10
Silver (Ag)-Total			103		%		70-130	21-SEP-10
Strontium (Sr)-Total			101		%		70-130	21-SEP-10
Thallium (Tl)-Total			110		%		70-130	21-SEP-10
Tin (Sn)-Total			104		%		70-130	21-SEP-10
Titanium (Ti)-Total			106		%		70-130	21-SEP-10
Uranium (U)-Total			107		%		70-130	21-SEP-10
Vanadium (V)-Total			104		%		70-130	21-SEP-10
Zinc (Zn)-Total			89		%		70-130	21-SEP-10
MET-T-NP-U-MS-ED								
Water								
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Aluminum (Al)-Total			108		%		80-120	21-SEP-10
Antimony (Sb)-Total			97		%		80-120	21-SEP-10
Arsenic (As)-Total			102		%		80-120	21-SEP-10
Barium (Ba)-Total			104		%		80-120	21-SEP-10
Beryllium (Be)-Total			106		%		80-120	21-SEP-10
Bismuth (Bi)-Total			103		%		80-120	21-SEP-10
Boron (B)-Total			95		%		80-120	21-SEP-10
Cadmium (Cd)-Total			105		%		80-120	21-SEP-10
Calcium (Ca)-Total			96		%		80-120	21-SEP-10
Chromium (Cr)-Total			104		%		80-120	21-SEP-10
Cobalt (Co)-Total			97		%		80-120	21-SEP-10
Copper (Cu)-Total			104		%		80-120	21-SEP-10
Lead (Pb)-Total			98		%		80-120	21-SEP-10
Lithium (Li)-Total			115		%		80-120	21-SEP-10
Magnesium (Mg)-Total			104		%		80-120	21-SEP-10
Manganese (Mn)-Total			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Total			98		%		80-120	21-SEP-10



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MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Nickel (Ni)-Total			103		%		80-120	21-SEP-10
Potassium (K)-Total			95		%		80-120	21-SEP-10
Selenium (Se)-Total			106		%		80-120	21-SEP-10
Silver (Ag)-Total			101		%		80-120	21-SEP-10
Sodium (Na)-Total			104		%		80-120	21-SEP-10
Strontium (Sr)-Total			104		%		80-120	21-SEP-10
Thallium (Tl)-Total			100		%		80-120	21-SEP-10
Vanadium (V)-Total			101		%		80-120	21-SEP-10
Zinc (Zn)-Total			110		%		80-120	21-SEP-10
WG1170506-1 MB								
Aluminum (Al)-Total			<0.00030		mg/L		0.0003	21-SEP-10
Antimony (Sb)-Total			<0.000030		mg/L		0.00003	21-SEP-10
Arsenic (As)-Total			<0.000030		mg/L		0.00003	21-SEP-10
Barium (Ba)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Beryllium (Be)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Bismuth (Bi)-Total			<0.000030		mg/L		0.00003	21-SEP-10
Boron (B)-Total			<0.0010		mg/L		0.001	21-SEP-10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Calcium (Ca)-Total			<0.020		mg/L		0.02	21-SEP-10
Chromium (Cr)-Total			<0.000060		mg/L		0.00006	21-SEP-10
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Copper (Cu)-Total			<0.00060		mg/L		0.0006	21-SEP-10
Lead (Pb)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Lithium (Li)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Magnesium (Mg)-Total			<0.0040		mg/L		0.004	21-SEP-10
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Total			<0.000060		mg/L		0.00006	21-SEP-10
Nickel (Ni)-Total			<0.00006		mg/L		0.00006	21-SEP-10
Potassium (K)-Total			<0.020		mg/L		0.02	21-SEP-10
Selenium (Se)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Sodium (Na)-Total			<0.0050		mg/L		0.005	21-SEP-10
Strontium (Sr)-Total			<0.00010		mg/L		0.0001	21-SEP-10
Thallium (Tl)-Total			<0.000030		mg/L		0.00003	21-SEP-10



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NO2-LOW-ED								
Batch R1451272								
WG1157309-3	LCS							
Nitrite-N			101		%		85-115	26-AUG-10
WG1157309-2	MB							
Nitrite-N			<0.0020		mg/L		0.002	26-AUG-10
WG1157309-5	MS	L924138-12						
Nitrite-N			98		%		78-122	26-AUG-10
WG1157309-7	MS	L924137-17						
Nitrite-N			94		%		78-122	26-AUG-10
P-TOTAL-LOW-ED								
Batch R1473265								
WG1169749-3	LCS							
Phosphorus, Total			100		%		80-120	21-SEP-10
WG1169749-2	MB							
Phosphorus, Total			<0.0010		mg/L		0.001	21-SEP-10
WG1169749-5	MS	L928818-2						
Phosphorus, Total			100		%		70-130	21-SEP-10
WG1169749-7	MS	L929483-1						
Phosphorus, Total			100		%		70-130	21-SEP-10
PH/EC/ALK-ED								
Batch R1450345								
WG1156452-2	LCS							
Conductivity (EC)			100		%		90-110	26-AUG-10
WG1156452-3	LCS							
pH			7.02		pH		6.9-7.1	26-AUG-10
WG1156452-4	LCS							
Alkalinity, Total (as CaCO3)			98		%		85-115	26-AUG-10
WG1156452-5	LCS							
Conductivity (EC)			99		%		90-110	26-AUG-10
WG1156452-1	MB							
Bicarbonate (HCO3)			<5.0		mg/L		5	26-AUG-10
Carbonate (CO3)			<5.0		mg/L		5	26-AUG-10
Hydroxide (OH)			<5.0		mg/L		5	26-AUG-10
Alkalinity, Total (as CaCO3)			<5.0		mg/L		5	26-AUG-10
SO4-L-IC-ED								
Batch R1449889								
WG1156076-2	LCS							
Sulfate (SO4)			111		%		85-115	25-AUG-10
WG1156076-1	MB							



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SO4-L-IC-ED								
Water								
Batch	R1449889							
WG1156076-1	MB							
Sulfate (SO4)			<0.050		mg/L		0.05	25-AUG-10
Batch	R1453429							
WG1158350-2	LCS							
Sulfate (SO4)			104		%		85-115	30-AUG-10
WG1158350-1	MB							
Sulfate (SO4)			<0.050		mg/L		0.05	30-AUG-10
SOLIDS-TOTSUS-ED								
Water								
Batch	R1451704							
WG1157214-5	DUP	L923781-1						
Total Suspended Solids		<3.0	<3.0	RPD-NA	mg/L	N/A	20	27-AUG-10
WG1157214-2	LCS							
Total Suspended Solids			98		%		85-115	27-AUG-10
WG1157214-3	LCS							
Total Suspended Solids			98		%		85-115	27-AUG-10
WG1157214-1	MB							
Total Suspended Solids			<3.0		mg/L		3	27-AUG-10
C-INORG-ORG-SK								
Soil								
Batch	R1460907							
WG1159689-2	IRM	0.4%IC						
Inorganic Carbon			0.39		%		0.28-0.52	08-SEP-10
CaCO3 Equivalent			3.15		%		2.33-4.33	08-SEP-10
WG1159689-3	MB							
Inorganic Carbon			<0.10		%		0.1	08-SEP-10
CaCO3 Equivalent			<0.80		%		0.8	08-SEP-10
C-TOT-LECO-SK								
Soil								
Batch	R1460903							
WG1159687-2	IRM	2004_SOIL						
Total Carbon by Combustion			1.5		%		1.1-1.7	02-SEP-10
WG1159687-3	MB							
Total Carbon by Combustion			<0.1		%		0.1	02-SEP-10
HG-200.2-CVAA-ED								
Soil								
Batch	R1474765							
WG1170034-4	CRM	TILL-1_SOIL						
Mercury (Hg)			118		%		80-120	22-SEP-10
WG1170034-5	CRM	PACS-2_SOIL						

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HG-200.2-CVAA-ED		Soil						
Batch	R1474765							
WG1170034-5	CRM	PACS-2_SOIL						
Mercury (Hg)			116		%		80-120	23-SEP-10
WG1170034-6	CRM	2702_SOIL						
Mercury (Hg)			90		%		70-100	22-SEP-10
WG1170034-1	MB							
Mercury (Hg)			<0.050		mg/kg		0.05	22-SEP-10
WG1170034-2	MB							
Mercury (Hg)			<0.050		mg/kg		0.05	22-SEP-10
WG1170034-3	MB							
Mercury (Hg)			<0.050		mg/kg		0.05	22-SEP-10
MET-200.2-MS-ED		Soil						
Batch	R1474744							
WG1170034-4	CRM	TILL-1_SOIL						
Aluminum (Al)			91		%		60-140	24-SEP-10
Antimony (Sb)			96		%		80-120	24-SEP-10
Arsenic (As)			95		%		80-120	24-SEP-10
Barium (Ba)			100		%		60-140	24-SEP-10
Chromium (Cr)			100		%		80-120	24-SEP-10
Cobalt (Co)			104		%		80-120	24-SEP-10
Copper (Cu)			100		%		80-120	24-SEP-10
Iron (Fe)			92		%		80-120	24-SEP-10
Lead (Pb)			92		%		80-120	24-SEP-10
Nickel (Ni)			101		%		80-120	24-SEP-10
Strontium (Sr)			97		%		60-140	24-SEP-10
Vanadium (V)			99		%		80-120	24-SEP-10
Zinc (Zn)			82		%		80-120	24-SEP-10
WG1170034-5	CRM	PACS-2_SOIL						
Aluminum (Al)			94		%		60-140	24-SEP-10
Antimony (Sb)			115		%		80-120	24-SEP-10
Arsenic (As)			101		%		80-120	24-SEP-10
Barium (Ba)			94		%		60-140	24-SEP-10
Cadmium (Cd)			105		%		60-140	24-SEP-10
Chromium (Cr)			102		%		80-120	24-SEP-10
Cobalt (Co)			106		%		80-120	24-SEP-10
Copper (Cu)			98		%		80-120	24-SEP-10
Iron (Fe)			99		%		80-120	24-SEP-10



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MET-200.2-MS-ED		Soil						
Batch	R1474744							
WG1170034-5	CRM	PACS-2_SOIL						
Lead (Pb)			100		%		80-120	24-SEP-10
Molybdenum (Mo)			117		%		80-120	24-SEP-10
Nickel (Ni)			103		%		80-120	24-SEP-10
Strontium (Sr)			101		%		60-140	24-SEP-10
Tin (Sn)			115		%		80-120	24-SEP-10
Vanadium (V)			104		%		80-120	24-SEP-10
Zinc (Zn)			84		%		80-120	24-SEP-10
WG1170034-6	CRM	2702_SOIL						
Aluminum (Al)			94		%		60-140	24-SEP-10
Arsenic (As)			91		%		80-120	24-SEP-10
Barium (Ba)			103		%		80-120	24-SEP-10
Chromium (Cr)			104		%		80-120	24-SEP-10
Cobalt (Co)			108		%		80-120	24-SEP-10
Copper (Cu)			101		%		80-120	24-SEP-10
Iron (Fe)			108		%		80-120	24-SEP-10
Lead (Pb)			97		%		80-120	24-SEP-10
Molybdenum (Mo)			90		%		80-120	24-SEP-10
Nickel (Ni)			115		%		80-120	24-SEP-10
Strontium (Sr)			98		%		60-140	24-SEP-10
Tin (Sn)			94		%		80-120	24-SEP-10
Vanadium (V)			98		%		80-120	24-SEP-10
WG1170034-1	MB							
Aluminum (Al)			<50		mg/kg		50	24-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	24-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	24-SEP-10
Barium (Ba)			<5.0		mg/kg		5	24-SEP-10
Beryllium (Be)			<1.0		mg/kg		1	24-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	24-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	24-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	24-SEP-10
Copper (Cu)			<2.0		mg/kg		2	24-SEP-10
Iron (Fe)			<200		mg/kg		200	24-SEP-10
Lead (Pb)			<5.0		mg/kg		5	24-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	24-SEP-10
Nickel (Ni)			<2.0		mg/kg		2	24-SEP-10

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MET-200.2-MS-ED		Soil						
Batch R1474744								
WG1170034-1 MB								
Selenium (Se)			<0.50		mg/kg		0.5	24-SEP-10
Silver (Ag)			<1.0		mg/kg		1	24-SEP-10
Strontium (Sr)			<1.0		mg/kg		1	24-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	24-SEP-10
Tin (Sn)			<5.0		mg/kg		5	24-SEP-10
Uranium (U)			<2.0		mg/kg		2	24-SEP-10
Vanadium (V)			<1.0		mg/kg		1	24-SEP-10
Zinc (Zn)			<10		mg/kg		10	24-SEP-10
WG1170034-2 MB								
Aluminum (Al)			<50		mg/kg		50	24-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	24-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	24-SEP-10
Barium (Ba)			<5.0		mg/kg		5	24-SEP-10
Beryllium (Be)			<1.0		mg/kg		1	24-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	24-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	24-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	24-SEP-10
Copper (Cu)			<2.0		mg/kg		2	24-SEP-10
Iron (Fe)			<200		mg/kg		200	24-SEP-10
Lead (Pb)			<5.0		mg/kg		5	24-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	24-SEP-10
Nickel (Ni)			<2.0		mg/kg		2	24-SEP-10
Selenium (Se)			<0.50		mg/kg		0.5	24-SEP-10
Silver (Ag)			<1.0		mg/kg		1	24-SEP-10
Strontium (Sr)			<1.0		mg/kg		1	24-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	24-SEP-10
Tin (Sn)			<5.0		mg/kg		5	24-SEP-10
Uranium (U)			<2.0		mg/kg		2	24-SEP-10
Vanadium (V)			<1.0		mg/kg		1	24-SEP-10
Zinc (Zn)			<10		mg/kg		10	24-SEP-10
WG1170034-3 MB								
Aluminum (Al)			<50		mg/kg		50	24-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	24-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	24-SEP-10
Barium (Ba)			<5.0		mg/kg		5	24-SEP-10



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED	Soil							
Batch	R1474744							
WG1170034-3	MB							
Beryllium (Be)			<1.0		mg/kg		1	24-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	24-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	24-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	24-SEP-10
Copper (Cu)			<2.0		mg/kg		2	24-SEP-10
Iron (Fe)			<200		mg/kg		200	24-SEP-10
Lead (Pb)			<5.0		mg/kg		5	24-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	24-SEP-10
Nickel (Ni)			<2.0		mg/kg		2	24-SEP-10
Selenium (Se)			<0.50		mg/kg		0.5	24-SEP-10
Silver (Ag)			<1.0		mg/kg		1	24-SEP-10
Strontium (Sr)			<1.0		mg/kg		1	24-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	24-SEP-10
Tin (Sn)			<5.0		mg/kg		5	24-SEP-10
Uranium (U)			<2.0		mg/kg		2	24-SEP-10
Vanadium (V)			<1.0		mg/kg		1	24-SEP-10
Zinc (Zn)			<10		mg/kg		10	24-SEP-10
PSA-1-ED	Soil							
Batch	R1462061							
WG1163536-1	MB							
% Sand			<1.0		%		1	09-SEP-10
% Silt			<1.0		%		1	09-SEP-10
% Clay			<1.0		%		1	09-SEP-10

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Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L923781

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrate+Nitrite-N							
	1	23-AUG-10 09:30	26-AUG-10 00:00	48	62	hours	EHTL
	2	23-AUG-10 10:00	26-AUG-10 00:00	48	62	hours	EHTL
	3	23-AUG-10 11:00	26-AUG-10 00:00	48	61	hours	EHTL
	4	23-AUG-10 11:00	26-AUG-10 00:00	48	61	hours	EHTL
Nitrate-N							
	1	23-AUG-10 09:30	26-AUG-10 00:00	48	62	hours	EHTL
	2	23-AUG-10 10:00	26-AUG-10 00:00	48	62	hours	EHTL
	3	23-AUG-10 11:00	26-AUG-10 00:00	48	61	hours	EHTL
	4	23-AUG-10 11:00	26-AUG-10 00:00	48	61	hours	EHTL
Nitrite-N							
	1	23-AUG-10 09:30	26-AUG-10 00:00	48	62	hours	EHTL
	2	23-AUG-10 10:00	26-AUG-10 00:00	48	62	hours	EHTL
	3	23-AUG-10 11:00	26-AUG-10 00:00	48	61	hours	EHTL
	4	23-AUG-10 11:00	26-AUG-10 00:00	48	61	hours	EHTL
Phosphorus, Total- Low Level							
	1	23-AUG-10 09:30	21-SEP-10 00:00	28	29	days	EHT
	2	23-AUG-10 10:00	21-SEP-10 00:00	28	29	days	EHT
	3	23-AUG-10 11:00	21-SEP-10 00:00	28	29	days	EHT
	4	23-AUG-10 11:00	21-SEP-10 00:00	28	29	days	EHT
Cyanides							
Cyanide, Total							
	1	23-AUG-10 09:30	09-SEP-10 13:14	14	17	days	EHT
	2	23-AUG-10 10:00	09-SEP-10 13:15	14	17	days	EHT
	3	23-AUG-10 11:00	09-SEP-10 13:16	14	17	days	EHT
	4	23-AUG-10 11:00	09-SEP-10 13:17	14	17	days	EHT
Organic / Inorganic Carbon							
Inorganic and Organic Carbon							
	5	23-AUG-10 10:30	08-SEP-10 00:00	14	16	days	EHT
	6	23-AUG-10 11:30	08-SEP-10 00:00	14	16	days	EHT
	7	23-AUG-10 12:30	08-SEP-10 00:00	14	15	days	EHT
	8	23-AUG-10 13:30	08-SEP-10 00:00	14	15	days	EHT
	9	23-AUG-10 15:00	08-SEP-10 00:00	14	15	days	EHT
Metals							
Mercury in Soil by CVAAS							
	5	23-AUG-10 10:30	22-SEP-10 00:00	28	30	days	EHT
	6	23-AUG-10 11:30	22-SEP-10 00:00	28	30	days	EHT
	7	23-AUG-10 12:30	22-SEP-10 00:00	28	29	days	EHT
	8	23-AUG-10 13:30	22-SEP-10 00:00	28	29	days	EHT
	9	23-AUG-10 15:00	22-SEP-10 00:00	28	29	days	EHT
Total Metals							
Mercury (Hg)							
	1	23-AUG-10 09:30	21-SEP-10 00:00	28	29	days	EHT
	2	23-AUG-10 10:00	21-SEP-10 00:00	28	29	days	EHT
	3	23-AUG-10 11:00	21-SEP-10 00:00	28	29	days	EHT
	4	23-AUG-10 11:00	21-SEP-10 00:00	28	29	days	EHT
Dissolved Metals							
Mercury (Hg) - Dissolved							
	1	23-AUG-10 09:30	21-SEP-10 00:00	28	29	days	EHT
	2	23-AUG-10 10:00	21-SEP-10 00:00	28	29	days	EHT
	3	23-AUG-10 11:00	21-SEP-10 00:00	28	29	days	EHT
	4	23-AUG-10 11:00	21-SEP-10 00:00	28	29	days	EHT

Legend & Qualifier Definitions:

Quality Control Report

Workorder: L923781

Report Date: 04-OCT-10

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EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.

Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L923781 were received on 24-AUG-10 16:59.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



ANALYSIS REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01112.0

Date: 10-Sep-2010

ALS Laboratory Group
Environmental Div.
9936-67th Avenue
Edmonton, AB, T6P 0P5

Phone: (780) 413-8441
FAX: (780) 437-2680

Client Ref. L923781

attn: Christine Potts

4 water samples Sampled: 23-Aug-2010 Received: 27-Aug-2010 Page 1 of 1

<u>Results of Analysis</u>					
Sample	Test	Result	Units	Date	Method
SCP1- EXPOSURE AREA SURFACE WATER	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
SCF1- EXPOSURE AREA SURFACE WATER	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
FB- FIELD BLANK	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
TB- TRIP BLANK	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA

Methods: ALPHA BQ-RAD-ALPHA alpha-particle spectrometry

Units: Bq/l Becquerels per litre

These results relate only to the samples analysed and only to the items tested.

10-Sep-2010 approved by: _____
Steven Simpson
Quality Manager

This test report shall not be reproduced, except in full, without written approval of Becquerel Laboratories Inc.



QUALITY REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01112.0

Date: 10-Sep-2010

Standard	Analyte	<u>Standards</u>		Result	Expected Result
		Units			
RA226.33	Ra-226	Bq/l		0.97	1.00

Analyte	<u>Blanks</u>	
	Units	Result
Ra-226	Bq/l	< 0.01

Analyte	Units	<u>Duplicates</u>	
		Result	Duplicate
Ra-226	Bq/l	< 0.01	< 0.01

Analyte	<u>Spikes</u>	
		% Recovery
Ra-226		85



Report To		Report Format / Distribution		Service Requested: (Rush subject to availability)	
Company: AECOM	Standard: ☒ Other (specify):	☒ Regular (Standard Turnaround Times)	(Surcharges apply)		
Contact: Colleen Prather	Select: PDF ☒ Excel ☒ Digital ☐ Fax ☐	Priority, Date Req'd: _____			
Address: 17007-107 Ave., Edmonton, AB	Email 1: colleen.prather@aecom.com	Emergency (1 Business Day) - 100% Surcharge			
Phone: (780) 486-7000 Fax: (780) 486-1070	Email 2: tiffany.hnatuk@aecom.com	For Emergency < 1 Day, ASAP or Weekend - Contact ALS			
Invoice To: Same as Report ? (circle) Yes ☒ or No ☐	Client / Project Information	Analysis Request			
Copy of Invoice with Report? (circle) Yes ☒ or No ☐	Job #: 60147160	(Indicate Filled or Preserved, F/P)			
Company:	PO / AFE:	☒ F	☒ P	☒ F	☒ P
Contact:	LSD:	☒ DOC	☒ TOC	☒ Diss. ⁴ metals	☒ Total ⁴ metals
Address:	Quote #: Q25816	☒ C	☒ P	☒ C	☒ P
Phone:	ALS Sean Whitaker Sampler: TH/Sw	☒ Low nutrients	☒ RA 226	☒ Low Routine	☒ TSS
Fax:	ALS Contact:	☒ Particle size	☒ TOC	☒ Total metals	☒ Number of Containers
Lab Work Order # (lab use only)	923781				
Sample #	Sample Identification (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	
	SCP1 - exposure area surface water	23-Aug-10	9:30	water	X
	SCF1 - exposure area surface water	23-Aug-10	10:00	water	X
	FB - exposure area field blank	23-Aug-10	11:00	water	X
	TB - trip blank	23-Aug-10	—	water	X
	SCP1 - exposure area sediment	23-Aug-10	10:30	sediment	X
	SCP2 - exposure area sediment	23-Aug-10	11:30	sediment	X
	SCP3 - exposure area sediment	23-Aug-10	12:30	sediment	X
	SCP4 - exposure area sediment	23-Aug-10	13:30	sediment	X
	SCP5 - exposure area sediment	23-Aug-10	15:00	sediment	X

Special Instructions / Regulations / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

Released by: **Tiffany Hnatuk** Date: **24-Aug-10** Time: **8:00**

SHIPMENT RELEASE (client use)

SHIPMENT RECEPTION (lab use only)

SHIPMENT VERIFICATION (lab use only)

Signature: Sean Whitaker



AECOM CANADA LTD.
ATTN: COLLEEN PRATHER
17007 107 AVE NW
EDMONTON AB T5S 1G3
Phone: 780-486-7015

Date Received: 27-AUG-10
Report Date: 12-NOV-10 14:02 (MT)
Version: FINAL REV. 2

Certificate of Analysis

Lab Work Order #: L925358
Project P.O. #: NOT SUBMITTED
Job Reference: 60147160
Legal Site Desc:
C of C Numbers: 10-062779

Comments: ADDITIONAL 12-NOV-10 11:38
ADDITIONAL 12-NOV-10 11:38

12-NOV-10: Revised for the addition of Sr, Fe, Al for the sediments

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LIMITED Part of the ALS Group A Campbell Brothers Limited Company

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-1 R2-1 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 09:30							
Matrix: WATER							
Ultra-Low Metals - Dissolved							
Diss. Metals in Water by ICPMS (Ultra)							
Aluminum (Al)-Dissolved	0.0196		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved	0.000723		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved	0.00164		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved	<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved	0.0035		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved	0.886		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved	0.000086		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved	0.00011		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved	0.00095		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved	0.00120		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved	0.458		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved	0.00383		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved	0.00189		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved	0.403		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved	0.495		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved	0.00464		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved	0.00032	RRV	0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved	0.00046	RRV	0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved	0.00187		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)							
Iron (Fe)-Dissolved	0.0660		0.0050	mg/L		02-SEP-10	R1457426
Ultra-Low Metals							
Fe in Water by ICPOES (Undigested)							
Iron (Fe)-Total	0.0709		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)							
Aluminum (Al)-Total	0.0162		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total	0.000704		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total	0.00162		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total	<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total	0.0031		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total	0.777		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total	0.000065		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	0.00011		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	0.00088		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00125		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	0.449		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	0.00417		0.00010	mg/L		21-SEP-10	R1474628

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-1 R2-1 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 09:30							
Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.00177		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	0.408		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	0.480		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.00456		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	0.00016		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	<0.0050		0.0050	mg/L		17-SEP-10	R1470676
Cyanide, Total	<0.0020		0.0020	mg/L	25-SEP-10	25-SEP-10	R1478020
Dissolved Organic Carbon	4.1		1.0	mg/L		22-SEP-10	R1474506
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		14-SEP-10	R1465604
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		14-SEP-10	R1465604
Phosphorus, Total	0.0046		0.0010	mg/L		27-SEP-10	R1479153
Radium-226	See Attached					10-SEP-10	R1464651
Total Organic Carbon	4.2		1.0	mg/L		22-SEP-10	R1474506
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG-10	R1454396
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		30-AUG-10	R1453429
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	0.85		0.50	mg/L		02-SEP-10	R1457426
Magnesium (Mg)-Dissolved	0.50		0.10	mg/L		02-SEP-10	R1457426
Potassium (K)-Dissolved	0.47		0.10	mg/L		02-SEP-10	R1457426
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		02-SEP-10	R1457426
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		30-AUG-10	R1453429
Ion Balance Calculation							
Ion Balance	Low EC			%		07-SEP-10	
TDS (Calculated)	3.7			mg/L		07-SEP-10	
Hardness (as CaCO3)	4.2			mg/L		07-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		30-AUG-10	R1454568
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		30-AUG-10	R1454568
Nitrite-N							
Nitrite-N	<0.0020		0.0020	mg/L		30-AUG-10	R1454568
Sulfate by IC (Low Level)							
Sulfate (SO4)	1.90		0.050	mg/L		30-AUG-10	R1453429
pH, Conductivity and Total Alkalinity							
pH	6.46		0.10	pH		30-AUG-10	R1453131
Conductivity (EC)	10.6		0.20	uS/cm		30-AUG-10	R1453131
Bicarbonate (HCO3)	<5.0		5.0	mg/L		30-AUG-10	R1453131
Carbonate (CO3)	<5.0		5.0	mg/L		30-AUG-10	R1453131
Hydroxide (OH)	<5.0		5.0	mg/L		30-AUG-10	R1453131

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-1	R2-1 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 09:30								
Matrix: WATER								
pH, Conductivity and Total Alkalinity Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		30-AUG-10	R1453131
L925358-2	R2-2 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 10:30								
Matrix: WATER								
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		0.00871		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		0.000659		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		0.00147		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0035		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		0.746		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		0.00101		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00121		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		0.439		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		0.00139		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		0.00191		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		0.424		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		0.515		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		0.00442		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		0.00508	RRV	0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		0.00241	RRV	0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		0.0052		0.0050	mg/L		02-SEP-10	R1457426
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		0.0689		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		0.0165		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total		0.000683		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total		0.00149		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total		0.0029		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total		0.757		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total		<0.000060		0.000060	mg/L		21-SEP-10	R1474628

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-2 R2-2 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 10:30							
Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Cobalt (Co)-Total	0.00010		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	0.00093		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00122		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	0.446		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	0.00329		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.00193		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	0.403		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	0.480		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.00440		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	0.00017		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	0.0079		0.0050	mg/L		17-SEP-10	R1470676
Cyanide, Total	<0.0020		0.0020	mg/L	25-SEP-10	25-SEP-10	R1478020
Dissolved Organic Carbon	4.3		1.0	mg/L		22-SEP-10	R1474506
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		14-SEP-10	R1465604
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		14-SEP-10	R1465604
Phosphorus, Total	0.0038		0.0010	mg/L		27-SEP-10	R1479153
Radium-226	See Attached					10-SEP-10	R1464651
Total Organic Carbon	4.1		1.0	mg/L		22-SEP-10	R1474506
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG-10	R1454396
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		30-AUG-10	R1453429
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	0.59		0.50	mg/L		02-SEP-10	R1457426
Magnesium (Mg)-Dissolved	0.41		0.10	mg/L		02-SEP-10	R1457426
Potassium (K)-Dissolved	0.35		0.10	mg/L		02-SEP-10	R1457426
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		02-SEP-10	R1457426
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		30-AUG-10	R1453429
Ion Balance Calculation							
Ion Balance	Low EC			%		07-SEP-10	
TDS (Calculated)	3.3			mg/L		07-SEP-10	
Hardness (as CaCO3)	3.2			mg/L		07-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		30-AUG-10	R1454568
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		30-AUG-10	R1454568
Nitrite-N							
Nitrite-N	<0.0020		0.0020	mg/L		30-AUG-10	R1454568
Sulfate by IC (Low Level)							
Sulfate (SO4)	1.94		0.050	mg/L		30-AUG-10	R1453429

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-2	R2-2 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 10:30								
Matrix: WATER								
pH, Conductivity and Total Alkalinity								
pH		6.74		0.10	pH		30-AUG-10	R1453131
Conductivity (EC)		10.2		0.20	uS/cm		30-AUG-10	R1453131
Bicarbonate (HCO3)		<5.0		5.0	mg/L		30-AUG-10	R1453131
Carbonate (CO3)		<5.0		5.0	mg/L		30-AUG-10	R1453131
Hydroxide (OH)		<5.0		5.0	mg/L		30-AUG-10	R1453131
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		30-AUG-10	R1453131
L925358-3	R2-3 (REF#2,SURFACE WATER)							
Sampled By: TH/SW on 26-AUG-10 @ 12:30								
Matrix: WATER								
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		0.0177		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		0.000685		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		0.00231		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0026		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		1.29		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		0.000068		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		0.00015		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		0.00282		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00164		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		0.702		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		0.00215		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		0.00716		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		0.429		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		0.646		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		0.00718		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		0.00014		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		0.00142		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		0.0285		0.0050	mg/L		02-SEP-10	R1457426
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		0.0989		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		0.0268		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total		0.000698		0.000030	mg/L		21-SEP-10	R1474628</

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-3 R2-3 (REF#2,SURFACE WATER) Sampled By: TH/SW on 26-AUG-10 @ 12:30 Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Bismuth (Bi)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total	0.0023		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total	1.24		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total	0.000063		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	0.00020		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	0.00300		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	0.000090		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00160		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	0.705		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	0.00311		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.00723		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	0.425		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	0.643		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.00724		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	0.00124		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	<0.0050		0.0050	mg/L	25-SEP-10	17-SEP-10	R1470676
Cyanide, Total	<0.0020		0.0020	mg/L		25-SEP-10	R1478020
Dissolved Organic Carbon	4.4		1.0	mg/L		22-SEP-10	R1474506
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		14-SEP-10	R1465604
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		14-SEP-10	R1465604
Phosphorus, Total	0.0448		0.0010	mg/L		27-SEP-10	R1479153
Radium-226	See Attached					10-SEP-10	R1464651
Total Organic Carbon	4.4		1.0	mg/L		22-SEP-10	R1474506
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG-10	R1454396
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		30-AUG-10	R1453429
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	1.06		0.50	mg/L		02-SEP-10	R1457426
Magnesium (Mg)-Dissolved	0.66		0.10	mg/L		02-SEP-10	R1457426
Potassium (K)-Dissolved	0.47		0.10	mg/L		02-SEP-10	R1457426
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		02-SEP-10	R1457426
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		30-AUG-10	R1453429
Ion Balance Calculation							
Ion Balance	Low EC			%		07-SEP-10	
TDS (Calculated)	6.8			mg/L		07-SEP-10	
Hardness (as CaCO3)	5.4			mg/L		07-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		30-AUG-10	R1454568
Nitrate-N							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-3R2-3 (REF#2,SURFACE WATER) Sampled By: TH/SW on 26-AUG-10 @ 12:30 Matrix: WATER							
Nitrate-N	<0.0060		0.0060	mg/L		30-AUG-10	R1454568
Nitrite-N	<0.0020		0.0020	mg/L		30-AUG-10	R1454568
Sulfate by IC (Low Level)							
Sulfate (SO4)	4.58		0.050	mg/L		30-AUG-10	R1453429
pH, Conductivity and Total Alkalinity							
pH	6.67		0.10	pH		30-AUG-10	R1453131
Conductivity (EC)	15.9		0.20	uS/cm		30-AUG-10	R1453131
Bicarbonate (HCO3)	<5.0		5.0	mg/L		30-AUG-10	R1453131
Carbonate (CO3)	<5.0		5.0	mg/L		30-AUG-10	R1453131
Hydroxide (OH)	<5.0		5.0	mg/L		30-AUG-10	R1453131
Alkalinity, Total (as CaCO3)	<5.0		5.0	mg/L		30-AUG-10	R1453131
L925358-4R2-1 (REF#2, SEDIMENT) Sampled By: TH/SW on 26-AUG-10 @ 10:00 Matrix: SEDIMENT							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	01-SEP-10	01-SEP-10	R1457493
Total Organic Carbon	0.51		0.10	%	01-SEP-10	01-SEP-10	R1457493
CaCO3 Equivalent	<0.80		0.80	%	01-SEP-10	01-SEP-10	R1457493
Total Carbon by combustion method							
Total Carbon by Combustion	0.5		0.1	%	01-SEP-10	01-SEP-10	R1457490
Metals in Soil by ICPMS (CCME)							
Mercury in Soil by CVAAS							
Mercury (Hg)	<0.050		0.050	mg/kg	03-SEP-10	07-SEP-10	R1460304
Metals in Soil by ICPMS							
Aluminum (Al)	4630		50	mg/kg		07-SEP-10	R1460123
Antimony (Sb)	<0.20		0.20	mg/kg		07-SEP-10	R1460123
Arsenic (As)	6.96		0.20	mg/kg		07-SEP-10	R1460123
Barium (Ba)	36.8		5.0	mg/kg		07-SEP-10	R1460123
Beryllium (Be)	<1.0		1.0	mg/kg		07-SEP-10	R1460123
Cadmium (Cd)	<0.50		0.50	mg/kg		07-SEP-10	R1460123
Chromium (Cr)	20.3		0.50	mg/kg		07-SEP-10	R1460123
Cobalt (Co)	4.5		1.0	mg/kg		07-SEP-10	R1460123
Copper (Cu)	3.7		2.0	mg/kg		07-SEP-10	R1460123
Iron (Fe)	8040		200	mg/kg		07-SEP-10	R1460123
Lead (Pb)	<5.0		5.0	mg/kg		07-SEP-10	R1460123
Molybdenum (Mo)	<1.0		1.0	mg/kg		07-SEP-10	R1460123
Nickel (Ni)	14.8		2.0	mg/kg		07-SEP-10	R1460123
Selenium (Se)	<0.50		0.50	mg/kg		07-SEP-10	R1460123
Silver (Ag)	<1.0		1.0	mg/kg		07-SEP-10	R1460123
Strontium (Sr)	2.5		1.0	mg/kg		07-SEP-10	R1460123
Thallium (Tl)	<0.50		0.50	mg/kg		07-SEP-10	R1460123
Tin (Sn)	<5.0		5.0	mg/kg		07-SEP-10	R1460123
Uranium (U)	<2.0		2.0	mg/kg		07-SEP-10	R1460123
Vanadium (V)	16.5		1.0	mg/kg		07-SEP-10	R1460123
Zinc (Zn)	45		10	mg/kg		07-SEP-10	R1460123
Miscellaneous Parameters							
Fragments > 2mm	1.5		1.0	%		07-SEP-10	R1459954
Particle Size							
% Sand	95.8		1.0	%		25-SEP-10	R1477942

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-4	R2-1 (REF#2, SEDIMENT)							
Sampled By: TH/SW on 26-AUG-10 @ 10:00								
Matrix: SEDIMENT								
Particle Size								
% Silt		3.0		1.0	%		25-SEP-10	R1477942
% Clay		1.2		1.0	%		25-SEP-10	R1477942
Texture		Sand					25-SEP-10	R1477942
L925358-5	R2-2 (REF#2, SEDIMENT)							
Sampled By: TH/SW on 26-AUG-10 @ 11:00								
Matrix: SEDIMENT								
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		0.13		0.10	%	01-SEP-10	01-SEP-10	R1457493
Total Organic Carbon		6.04		0.10	%	01-SEP-10	01-SEP-10	R1457493
CaCO3 Equivalent		1.51		0.80	%	01-SEP-10	01-SEP-10	R1457493
Total Carbon by combustion method								
Total Carbon by Combustion		6.2		0.1	%	01-SEP-10	01-SEP-10	R1457490
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	03-SEP-10	07-SEP-10	R1460304
Metals in Soil by ICPMS								
Aluminum (Al)		11800		50	mg/kg		07-SEP-10	R1460123
Antimony (Sb)		<0.20		0.20	mg/kg		07-SEP-10	R1460123
Arsenic (As)		17.8		0.20	mg/kg		07-SEP-10	R1460123
Barium (Ba)		64.9		5.0	mg/kg		07-SEP-10	R1460123
Beryllium (Be)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Cadmium (Cd)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Chromium (Cr)		59.4		0.50	mg/kg		07-SEP-10	R1460123
Cobalt (Co)		13.3		1.0	mg/kg		07-SEP-10	R1460123
Copper (Cu)		45.3		2.0	mg/kg		07-SEP-10	R1460123
Iron (Fe)		27100		200	mg/kg		07-SEP-10	R1460123
Lead (Pb)		<5.0		5.0	mg/kg		07-SEP-10	R1460123
Molybdenum (Mo)		1.7		1.0	mg/kg		07-SEP-10	R1460123
Nickel (Ni)		65.1		2.0	mg/kg		07-SEP-10	R1460123
Selenium (Se)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Silver (Ag)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Strontium (Sr)		10.7		1.0	mg/kg		07-SEP-10	R1460123
Thallium (Tl)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Tin (Sn)		<5.0		5.0	mg/kg		07-SEP-10	R1460123
Uranium (U)		<2.0		2.0	mg/kg		07-SEP-10	R1460123
Vanadium (V)		36.5		1.0	mg/kg		07-SEP-10	R1460123
Zinc (Zn)		68		10	mg/kg		07-SEP-10	R1460123
Miscellaneous Parameters								
Fragments > 2mm		18.6		1.0	%		07-SEP-10	R1459954
Particle Size								
% Sand		62.4		1.0	%		25-SEP-10	R1477942
% Silt		33.2		1.0	%		25-SEP-10	R1477942
% Clay		4.4		1.0	%		25-SEP-10	R1477942
Texture		Sandy loam					25-SEP-10	R1477942
L925358-6	R2-3 (REF#2, SEDIMENT)							
Sampled By: TH/SW on 26-AUG-10 @ 11:30								
Matrix: SEDIMENT								
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	01-SEP-10	01-SEP-10	R1457493

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-6 R2-3 (REF#2, SEDIMENT) Sampled By: TH/SW on 26-AUG-10 @ 11:30 Matrix: SEDIMENT							
Inorganic and Organic Carbon							
Total Organic Carbon	0.52		0.10	%	01-SEP-10	01-SEP-10	R1457493
CaCO3 Equivalent	<0.80		0.80	%	01-SEP-10	01-SEP-10	R1457493
Total Carbon by combustion method							
Total Carbon by Combustion	0.5		0.1	%	01-SEP-10	01-SEP-10	R1457490
Metals in Soil by ICPMS (CCME)							
Mercury in Soil by CVAAS							
Mercury (Hg)	<0.050		0.050	mg/kg	03-SEP-10	07-SEP-10	R1460304
Metals in Soil by ICPMS							
Aluminum (Al)	3670		50	mg/kg		07-SEP-10	R1460123
Antimony (Sb)	<0.20		0.20	mg/kg		07-SEP-10	R1460123
Arsenic (As)	4.42		0.20	mg/kg		07-SEP-10	R1460123
Barium (Ba)	20.5		5.0	mg/kg		07-SEP-10	R1460123
Beryllium (Be)	<1.0		1.0	mg/kg		07-SEP-10	R1460123
Cadmium (Cd)	<0.50		0.50	mg/kg		07-SEP-10	R1460123
Chromium (Cr)	13.7		0.50	mg/kg		07-SEP-10	R1460123
Cobalt (Co)	4.7		1.0	mg/kg		07-SEP-10	R1460123
Copper (Cu)	9.6		2.0	mg/kg		07-SEP-10	R1460123
Iron (Fe)	5590		200	mg/kg		07-SEP-10	R1460123
Lead (Pb)	<5.0		5.0	mg/kg		07-SEP-10	R1460123
Molybdenum (Mo)	<1.0		1.0	mg/kg		07-SEP-10	R1460123
Nickel (Ni)	16.7		2.0	mg/kg		07-SEP-10	R1460123
Selenium (Se)	<0.50		0.50	mg/kg		07-SEP-10	R1460123
Silver (Ag)	<1.0		1.0	mg/kg		07-SEP-10	R1460123
Strontium (Sr)	4.2		1.0	mg/kg		07-SEP-10	R1460123
Thallium (Tl)	<0.50		0.50	mg/kg		07-SEP-10	R1460123
Tin (Sn)	<5.0		5.0	mg/kg		07-SEP-10	R1460123
Uranium (U)	<2.0		2.0	mg/kg		07-SEP-10	R1460123
Vanadium (V)	9.8		1.0	mg/kg		07-SEP-10	R1460123
Zinc (Zn)	16		10	mg/kg		07-SEP-10	R1460123
Miscellaneous Parameters							
Fragments > 2mm	12.1		1.0	%		07-SEP-10	R1459954
Particle Size							
% Sand	84.4		1.0	%		25-SEP-10	R1477942
% Silt	13.4		1.0	%		25-SEP-10	R1477942
% Clay	2.2		1.0	%		25-SEP-10	R1477942
Texture	Loamy sand					25-SEP-10	R1477942
L925358-7 R2-4 (REF#2, SEDIMENT) Sampled By: TH/SW on 26-AUG-10 @ 14:00 Matrix: SEDIMENT							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	01-SEP-10	01-SEP-10	R1457493
Total Organic Carbon	1.21		0.10	%	01-SEP-10	01-SEP-10	R1457493
CaCO3 Equivalent	<0.80		0.80	%	01-SEP-10	01-SEP-10	R1457493
Total Carbon by combustion method							
Total Carbon by Combustion	1.2		0.1	%	01-SEP-10	01-SEP-10	R1457490
Metals in Soil by ICPMS (CCME)							
Mercury in Soil by CVAAS							
Mercury (Hg)	<0.050		0.050	mg/kg	03-SEP-10	07-SEP-10	R1460304
Metals in Soil by ICPMS							
Aluminum (Al)	5480		50	mg/kg		07-SEP-10	R1460123

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-7	R2-4 (REF#2, SEDIMENT)							
Sampled By:	TH/SW on 26-AUG-10 @ 14:00							
Matrix:	SEDIMENT							
Metals in Soil by ICPMS								
Antimony (Sb)		<0.20		0.20	mg/kg		07-SEP-10	R1460123
Arsenic (As)		2.66		0.20	mg/kg		07-SEP-10	R1460123
Barium (Ba)		43.4		5.0	mg/kg		07-SEP-10	R1460123
Beryllium (Be)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Cadmium (Cd)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Chromium (Cr)		35.1		0.50	mg/kg		07-SEP-10	R1460123
Cobalt (Co)		5.3		1.0	mg/kg		07-SEP-10	R1460123
Copper (Cu)		13.8		2.0	mg/kg		07-SEP-10	R1460123
Iron (Fe)		7280		200	mg/kg		07-SEP-10	R1460123
Lead (Pb)		<5.0		5.0	mg/kg		07-SEP-10	R1460123
Molybdenum (Mo)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Nickel (Ni)		26.9		2.0	mg/kg		07-SEP-10	R1460123
Selenium (Se)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Silver (Ag)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Strontium (Sr)		6.5		1.0	mg/kg		07-SEP-10	R1460123
Thallium (Tl)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Tin (Sn)		<5.0		5.0	mg/kg		07-SEP-10	R1460123
Uranium (U)		<2.0		2.0	mg/kg		07-SEP-10	R1460123
Vanadium (V)		17.4		1.0	mg/kg		07-SEP-10	R1460123
Zinc (Zn)		30		10	mg/kg		07-SEP-10	R1460123
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		07-SEP-10	R1459954
Note: very little fragments retained from L925358-4,-7,-8 and L923781-5,-7,-8,-9								
Particle Size								
% Sand		61.8		1.0	%		25-SEP-10	R1477942
% Silt		36.2		1.0	%		25-SEP-10	R1477942
% Clay		2.0		1.0	%		25-SEP-10	R1477942
Texture		Sandy loam					25-SEP-10	R1477942
L925358-8	R2-5 (REF#2, SEDIMENT)							
Sampled By:	TH/SW on 26-AUG-10 @ 15:00							
Matrix:	SEDIMENT							
Total Organic Carbon -Inorg & Total C								
Inorganic and Organic Carbon								
Inorganic Carbon		<0.10		0.10	%	01-SEP-10	01-SEP-10	R1457493
Total Organic Carbon		0.39		0.10	%	01-SEP-10	01-SEP-10	R1457493
CaCO3 Equivalent		<0.80		0.80	%	01-SEP-10	01-SEP-10	R1457493
Total Carbon by combustion method								
Total Carbon by Combustion		0.4		0.1	%	01-SEP-10	01-SEP-10	R1457490
Metals in Soil by ICPMS (CCME)								
Mercury in Soil by CVAAS								
Mercury (Hg)		<0.050		0.050	mg/kg	03-SEP-10	07-SEP-10	R1460304
Metals in Soil by ICPMS								
Aluminum (Al)		4470		50	mg/kg		07-SEP-10	R1460123
Antimony (Sb)		<0.20		0.20	mg/kg		07-SEP-10	R1460123
Arsenic (As)		6.15		0.20	mg/kg		07-SEP-10	R1460123
Barium (Ba)		34.8		5.0	mg/kg		07-SEP-10	R1460123
Beryllium (Be)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Cadmium (Cd)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Chromium (Cr)		19.1		0.50	mg/kg		07-SEP-10	R1460123
Cobalt (Co)		6.8		1.0	mg/kg		07-SEP-10	R1460123

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925358-8	R2-5 (REF#2, SEDIMENT)							
Sampled By: TH/SW on 26-AUG-10 @ 15:00								
Matrix: SEDIMENT								
Metals in Soil by ICPMS								
Copper (Cu)		10.2		2.0	mg/kg		07-SEP-10	R1460123
Iron (Fe)		7750		200	mg/kg		07-SEP-10	R1460123
Lead (Pb)		<5.0		5.0	mg/kg		07-SEP-10	R1460123
Molybdenum (Mo)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Nickel (Ni)		23.2		2.0	mg/kg		07-SEP-10	R1460123
Selenium (Se)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Silver (Ag)		<1.0		1.0	mg/kg		07-SEP-10	R1460123
Strontium (Sr)		4.7		1.0	mg/kg		07-SEP-10	R1460123
Thallium (Tl)		<0.50		0.50	mg/kg		07-SEP-10	R1460123
Tin (Sn)		<5.0		5.0	mg/kg		07-SEP-10	R1460123
Uranium (U)		<2.0		2.0	mg/kg		07-SEP-10	R1460123
Vanadium (V)		13.8		1.0	mg/kg		07-SEP-10	R1460123
Zinc (Zn)		27		10	mg/kg		07-SEP-10	R1460123
Miscellaneous Parameters								
Fragments > 2mm		<1.0		1.0	%		07-SEP-10	R1459954
Particle Size								
% Sand		92.6		1.0	%		25-SEP-10	R1477942
% Silt		7.0		1.0	%		25-SEP-10	R1477942
% Clay		<1.0		1.0	%		25-SEP-10	R1477942
Texture		Sand					25-SEP-10	R1477942

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Duplicate	Antimony (Sb)	DUP-H	L925358-4, -5, -6, -7, -8
Matrix Spike	Dissolved Organic Carbon	MS-B	L925358-1, -2, -3
Matrix Spike	Total Organic Carbon	MS-B	L925358-1, -2, -3
Matrix Spike	Total Organic Carbon	MS-B	L925358-1, -2, -3
Matrix Spike	Total Organic Carbon	MS-B	L925358-1, -2, -3

Sample Parameter Qualifier Key:

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-DIS-ORG-ED	Water	Dissolved Organic Carbon	APHA 5310 B-Instrumental
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO₂ loss is proportional to the carbonate content of the soil.

Reference:

Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-LECO-SK Soil Total Carbon by combustion method SSSA (1996) P. 973-974

The sample is introduced into a quartz tube where it undergoes combustion at 900 °C in the presence of oxygen. Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen. This mixture of N₂, CO₂, and H₂O is then passed through an absorber column containing magnesium perchlorate to remove water. N₂ and CO₂ gases are then separated in a gas chromatographic column and detected by thermal conductivity.

Reference:

Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-ORG-ED	Water	Total Organic Carbon	APHA 5310 B-Instrumental
CL-IC-ED	Water	Chloride by IC	APHA 4110 B-ION CHROMATOGRAPHY
CN-TOT-WT	Water	Cyanide, Total	APHA 4500CN C E-STRONG ACID DIST COLORIM

Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.

F-IC-ED	Water	Fluoride by IC	APHA 4110 B-ION CHROMATOGRAPHY
FE-D-NP-U-ICP-ED	Water	Dissolved Fe in Water by ICPOES (Ultra)	APHA 3120 B-ICP-OES

Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.

FE-T-NP-U-ICP-ED	Water	Fe in Water by ICPOES (Undigested)	APHA 3120 B-ICP-OES
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Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine non-turbid acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.

HG-200.2-CVAA-ED	Soil	Mercury in Soil by CVAAS	EPA 200.2/245.1
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Test method is based on US EPA Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements", and meets all requirements of BC CSR Analytical Method 8 "Strong Acid Leachable Metals (SALM) in Soil", BC MOE, June 26, 2001. Soil is dried at <60°C and digested with nitric and hydrochloric acids, prior to analysis for mercury by cold vapour atomic absorption.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
HG-D-L-CVAA-ED	Water	Mercury (Hg) - Dissolved	EPA 245.7 / EPA 245.1
HG-T-L-CVAA-ED	Water	Mercury (Hg)	EPA 245.7 / EPA 245.1
IONBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-200.2-MS-ED	Soil	Metals in Soil by ICPMS	EPA 200.2/6020A
MET-D-L-ICP-ED	Water	Diss. Metals in Water by ICPOES (Low)	APHA 3120 B-ICP-OES
MET-D-NP-U-MS-ED	Water	Diss. Metals in Water by ICPMS (Ultra)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
MET-T-NP-U-MS-ED	Water	Metals in Water by ICPMS (Undigested)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
N2N3-LOW-ED	Water	Nitrate+Nitrite-N	APHA 4500 NO3E-Colorimetry
NH4-LOW-ED	Water	Ammonia-N Low Level	APHA 4500 NH3F-Colorimetry
NO2-LOW-ED	Water	Nitrite-N	APHA 4500 NO2B-Colorimetry
NO3-LOW-ED	Water	Nitrate-N	APHA 4500 NO3H-Colorimetry
P-TOTAL-LOW-ED	Water	Phosphorus, Total- Low Level	APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
PSA-1-ED	Soil	Particle Size	CSSS 47.3 - Hydrometer
PSA-COARSE_FRAGS-ED	Soil	Fragments >2mm (Cobbles and Stones)	CSSS 47.4
RAD-RA226-BE	Water	Radium 226 (Becquerel)	MODIFIED EPA.903.0
SO4-L-IC-ED	Water	Sulfate by IC (Low Level)	APHA 4110 B-ION CHROMATOGRAPHY
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA
SK	ALS LABORATORY GROUP - SASKATOON, SASKATCHEWAN, CANADA
WT	ALS LABORATORY GROUP - WATERLOO, ONTARIO, CANADA
BE	Becquerel Laboratories Inc. - Mississauga, Ontario, Canada

Chain of Custody Numbers:

10-062779

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg ww - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.

< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-ED		Water						
Batch	R1474506							
WG1171436-12 CVS								
Total Organic Carbon			138		%		80-160	24-SEP-10
WG1171436-29 CVS								
Total Organic Carbon			111		%		80-160	28-SEP-10
WG1171436-3 CVS								
Total Organic Carbon			123		%		80-160	22-SEP-10
WG1171436-35 CVS								
Total Organic Carbon			119		%		80-160	29-SEP-10
WG1171436-13 DUP		L931048-5						
Total Organic Carbon		3.2	3.1		mg/L	4.5	20	23-SEP-10
WG1171436-15 DUP		L931273-1						
Total Organic Carbon		<1.0	<1.0	RPD-NA	mg/L	N/A	20	23-SEP-10
WG1171436-17 DUP		L933880-7						
Total Organic Carbon		9.8	9.2		mg/L	6.5	20	23-SEP-10
WG1171436-21 DUP		L931474-2						
Total Organic Carbon		2.8	2.9		mg/L	1.4	20	24-SEP-10
WG1171436-23 DUP		L934144-1						
Total Organic Carbon		12.2	12.0		mg/L	2.1	20	24-SEP-10
WG1171436-25 DUP		L936024-3						
Total Organic Carbon		53.6	53.5		mg/L	0.22	20	27-SEP-10
WG1171436-30 DUP		L932732-10						
Total Organic Carbon		4.2	3.3	J	mg/L	0.9	2	27-SEP-10
WG1171436-36 DUP		L935704-1						
Total Organic Carbon		58.3	59.5		mg/L	2.0	20	28-SEP-10
WG1171436-38 DUP		L932857-5						
Total Organic Carbon		1.1	<1.0	RPD-NA	mg/L	N/A	20	28-SEP-10
WG1171436-4 DUP		L930275-1						
Total Organic Carbon		3.5	3.5		mg/L	2.7	20	22-SEP-10
WG1171436-6 DUP		L933983-3						
Total Organic Carbon		3.6	3.6		mg/L	0.55	20	23-SEP-10
WG1171436-11 LCS								
Total Organic Carbon			97		%		80-120	23-SEP-10
WG1171436-2 LCS								
Total Organic Carbon			95		%		80-120	22-SEP-10
WG1171436-28 LCS								
Total Organic Carbon			90		%		80-120	28-SEP-10
WG1171436-34 LCS								
Total Organic Carbon			92		%		80-120	29-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-ED		Water						
Batch	R1474506							
WG1171436-1 MB								
Total Organic Carbon			<1.0		mg/L		1	22-SEP-10
WG1171436-10 MB								
Total Organic Carbon			<1.0		mg/L		1	23-SEP-10
WG1171436-27 MB								
Total Organic Carbon			<1.0		mg/L		1	27-SEP-10
WG1171436-33 MB								
Total Organic Carbon			<1.0		mg/L		1	28-SEP-10
WG1171436-14 MS		L931048-5						
Total Organic Carbon			88		%		70-130	23-SEP-10
WG1171436-16 MS		L931273-1						
Total Organic Carbon			104		%		70-130	23-SEP-10
WG1171436-18 MS		L933880-7						
Total Organic Carbon			92		%		70-130	23-SEP-10
WG1171436-22 MS		L931474-2						
Total Organic Carbon			91		%		70-130	24-SEP-10
WG1171436-24 MS		L934144-1						
Total Organic Carbon			N/A	MS-B	%		-	24-SEP-10
WG1171436-26 MS		L936024-3						
Total Organic Carbon			N/A	MS-B	%		-	27-SEP-10
WG1171436-31 MS		L932732-10						
Total Organic Carbon			83		%		70-130	27-SEP-10
WG1171436-37 MS		L935704-1						
Total Organic Carbon			N/A	MS-B	%		-	28-SEP-10
WG1171436-39 MS		L932857-5						
Total Organic Carbon			98		%		70-130	28-SEP-10
WG1171436-5 MS		L930275-1						
Total Organic Carbon			92		%		70-130	22-SEP-10
WG1171436-7 MS		L933983-3						
Total Organic Carbon			95		%		70-130	23-SEP-10
CL-IC-ED		Water						
Batch	R1453429							
WG1158350-6 DUP		L925576-2						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	30-AUG-10
WG1158350-2 LCS								
Chloride (Cl)			103		%		85-115	30-AUG-10
WG1158350-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	30-AUG-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-L-CVAA-ED		Water						
Batch	R1465604							
WG1166484-4	DUP	L854114-49						
Mercury (Hg)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	14-SEP-10
WG1166484-8	DUP	L927176-1						
Mercury (Hg)-Dissolved		<0.020	<0.000020	RPD-NA	mg/L	N/A	20	14-SEP-10
WG1166484-2	LCS							
Mercury (Hg)-Dissolved			95		%		80-120	14-SEP-10
WG1166484-3	LCSD	WG1166484-2						
Mercury (Hg)-Dissolved		95	85		%	11	20	14-SEP-10
WG1166484-1	MB							
Mercury (Hg)-Dissolved			<0.000020		mg/L		0.00002	14-SEP-10
WG1166484-5	MS	L854114-49						
Mercury (Hg)-Dissolved			111		%		70-130	14-SEP-10
WG1166484-9	MS	L927176-1						
Mercury (Hg)-Dissolved			104		%		70-130	14-SEP-10
HG-T-L-CVAA-ED		Water						
Batch	R1465604							
WG1166484-2	LCS							
Mercury (Hg)-Total			95		%		80-120	14-SEP-10
WG1166484-3	LCSD	WG1166484-2						
Mercury (Hg)-Total		95	85		%	11	20	14-SEP-10
WG1166484-1	MB							
Mercury (Hg)-Total			<0.000020		mg/L		0.00002	14-SEP-10
MET-D-L-ICP-ED		Water						
Batch	R1457426							
WG1160677-2	CRM	EU-H-3_OPTWATER						
WG1160677-3	DUP	L925358-2						
Calcium (Ca)-Dissolved		0.59	0.65		mg/L	9.7	20	02-SEP-10
Magnesium (Mg)-Dissolved		0.41	0.44		mg/L	8.6	20	02-SEP-10
Potassium (K)-Dissolved		0.35	0.52	J	mg/L	0.16	0.2	02-SEP-10
Sodium (Na)-Dissolved		<1.0	<0.50	RPD-NA	mg/L	N/A	20	02-SEP-10
WG1160677-5	DUP	L925358-3						
Calcium (Ca)-Dissolved		1.06	1.09		mg/L	2.6	20	02-SEP-10
Magnesium (Mg)-Dissolved		0.66	0.67		mg/L	1.3	20	02-SEP-10
Potassium (K)-Dissolved		0.47	0.47		mg/L	0.43	20	02-SEP-10
Sodium (Na)-Dissolved		<1.0	0.59		mg/L	3.3	20	02-SEP-10
WG1160677-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	02-SEP-10



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17007 107 AVE NW
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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-L-ICP-ED		Water						
Batch	R1457426							
WG1160677-1 MB								
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	02-SEP-10
Potassium (K)-Dissolved			<0.10		mg/L		0.1	02-SEP-10
Sodium (Na)-Dissolved			<0.50		mg/L		0.5	02-SEP-10
WG1160677-4 MS		L925358-2						
Calcium (Ca)-Dissolved			103		%		70-130	02-SEP-10
Magnesium (Mg)-Dissolved			104		%		70-130	02-SEP-10
Potassium (K)-Dissolved			99		%		70-130	02-SEP-10
Sodium (Na)-Dissolved			103		%		70-130	02-SEP-10
WG1160677-6 MS		L925358-3						
Calcium (Ca)-Dissolved			90		%		70-130	02-SEP-10
Magnesium (Mg)-Dissolved			91		%		70-130	02-SEP-10
Potassium (K)-Dissolved			84		%		70-130	02-SEP-10
Sodium (Na)-Dissolved			86		%		70-130	02-SEP-10
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Aluminum (Al)-Dissolved			108		%		80-120	21-SEP-10
Antimony (Sb)-Dissolved			97		%		80-120	21-SEP-10
Arsenic (As)-Dissolved			102		%		80-120	21-SEP-10
Barium (Ba)-Dissolved			104		%		80-120	21-SEP-10
Beryllium (Be)-Dissolved			103		%		80-120	21-SEP-10
Bismuth (Bi)-Dissolved			103		%		80-120	21-SEP-10
Boron (B)-Dissolved			95		%		80-120	21-SEP-10
Cadmium (Cd)-Dissolved			105		%		80-120	21-SEP-10
Calcium (Ca)-Dissolved			96		%		80-120	21-SEP-10
Chromium (Cr)-Dissolved			104		%		80-120	21-SEP-10
Cobalt (Co)-Dissolved			97		%		80-120	21-SEP-10
Copper (Cu)-Dissolved			104		%		80-120	21-SEP-10
Lead (Pb)-Dissolved			98		%		80-120	21-SEP-10
Lithium (Li)-Dissolved			115		%		80-120	21-SEP-10
Magnesium (Mg)-Dissolved			104		%		80-120	21-SEP-10
Manganese (Mn)-Dissolved			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Dissolved			98		%		80-120	21-SEP-10
Nickel (Ni)-Dissolved			103		%		80-120	21-SEP-10



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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Potassium (K)-Dissolved			95		%		80-120	21-SEP-10
Selenium (Se)-Dissolved			106		%		80-120	21-SEP-10
Sodium (Na)-Dissolved			104		%		80-120	21-SEP-10
Strontium (Sr)-Dissolved			104		%		80-120	21-SEP-10
Thallium (Tl)-Dissolved			100		%		80-120	21-SEP-10
Vanadium (V)-Dissolved			101		%		80-120	21-SEP-10
Zinc (Zn)-Dissolved			110		%		80-120	21-SEP-10
WG1170506-1 MB								
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	21-SEP-10
Antimony (Sb)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Arsenic (As)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Beryllium (Be)-Dissolved			<0.00020		mg/L		0.0002	21-SEP-10
Bismuth (Bi)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Boron (B)-Dissolved			<0.0010		mg/L		0.001	21-SEP-10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	21-SEP-10
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Lithium (Li)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	21-SEP-10
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Nickel (Ni)-Dissolved			<0.00006		mg/L		0.00006	21-SEP-10
Potassium (K)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Selenium (Se)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	21-SEP-10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Thallium (Tl)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-1 MB								
Uranium (U)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	21-SEP-10
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Aluminum (Al)-Total			108		%		80-120	21-SEP-10
Antimony (Sb)-Total			97		%		80-120	21-SEP-10
Arsenic (As)-Total			102		%		80-120	21-SEP-10
Barium (Ba)-Total			104		%		80-120	21-SEP-10
Beryllium (Be)-Total			106		%		80-120	21-SEP-10
Bismuth (Bi)-Total			103		%		80-120	21-SEP-10
Boron (B)-Total			95		%		80-120	21-SEP-10
Cadmium (Cd)-Total			105		%		80-120	21-SEP-10
Calcium (Ca)-Total			96		%		80-120	21-SEP-10
Chromium (Cr)-Total			104		%		80-120	21-SEP-10
Cobalt (Co)-Total			97		%		80-120	21-SEP-10
Copper (Cu)-Total			104		%		80-120	21-SEP-10
Lead (Pb)-Total			98		%		80-120	21-SEP-10
Lithium (Li)-Total			115		%		80-120	21-SEP-10
Magnesium (Mg)-Total			104		%		80-120	21-SEP-10
Manganese (Mn)-Total			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Total			98		%		80-120	21-SEP-10
Nickel (Ni)-Total			103		%		80-120	21-SEP-10
Potassium (K)-Total			95		%		80-120	21-SEP-10
Selenium (Se)-Total			106		%		80-120	21-SEP-10
Silver (Ag)-Total			101		%		80-120	21-SEP-10
Sodium (Na)-Total			104		%		80-120	21-SEP-10
Strontium (Sr)-Total			104		%		80-120	21-SEP-10
Thallium (Tl)-Total			100		%		80-120	21-SEP-10
Vanadium (V)-Total			101		%		80-120	21-SEP-10
Zinc (Zn)-Total			110		%		80-120	21-SEP-10
WG1170506-3 DUP		L929483-1						
Aluminum (Al)-Total		0.00074	0.00044	J	mg/L	0.00030	0.0006	21-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-3 DUP		L929483-1						
Antimony (Sb)-Total		0.000072	0.000071		mg/L	0.90	20	21-SEP-10
Arsenic (As)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Barium (Ba)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	21-SEP-10
Bismuth (Bi)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Boron (B)-Total		0.0047	0.0045		mg/L	4.9	20	21-SEP-10
Cadmium (Cd)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Calcium (Ca)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Chromium (Cr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Copper (Cu)-Total		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	21-SEP-10
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Lithium (Li)-Total		0.00015	0.00020	J	mg/L	0.00005	0.0002	21-SEP-10
Magnesium (Mg)-Total		N/A	<0.0040	RPD-NA	mg/L	N/A	20	21-SEP-10
Manganese (Mn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Molybdenum (Mo)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Nickel (Ni)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Potassium (K)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Selenium (Se)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Sodium (Na)-Total		N/A	<0.0050	RPD-NA	mg/L	N/A	20	21-SEP-10
Strontium (Sr)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Thallium (Tl)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Tin (Sn)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Titanium (Ti)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Uranium (U)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Vanadium (V)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Zinc (Zn)-Total		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	21-SEP-10
WG1170506-4 DUP		L930275-8						
Aluminum (Al)-Total		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	21-SEP-10
Antimony (Sb)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Arsenic (As)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Barium (Ba)-Total		<0.000050	0.000056	RPD-NA	mg/L	N/A	20	21-SEP-10



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17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-4 DUP		L930275-8						
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	21-SEP-10
Bismuth (Bi)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Boron (B)-Total		0.0023	0.0024		mg/L	1.1	20	21-SEP-10
Cadmium (Cd)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Calcium (Ca)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Chromium (Cr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Copper (Cu)-Total		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	21-SEP-10
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Lithium (Li)-Total		0.00045	0.00046		mg/L	1.7	20	21-SEP-10
Magnesium (Mg)-Total		N/A	<0.0040	RPD-NA	mg/L	N/A	20	21-SEP-10
Manganese (Mn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Molybdenum (Mo)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Nickel (Ni)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Potassium (K)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Selenium (Se)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Sodium (Na)-Total		N/A	<0.0050	RPD-NA	mg/L	N/A	20	21-SEP-10
Strontium (Sr)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Thallium (Tl)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Tin (Sn)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Titanium (Ti)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Uranium (U)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Vanadium (V)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Zinc (Zn)-Total		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	21-SEP-10
WG1170506-1 MB								
Aluminum (Al)-Total			<0.00030		mg/L		0.0003	21-SEP-10
Antimony (Sb)-Total			<0.000030		mg/L		0.00003	21-SEP-10
Arsenic (As)-Total			<0.000030		mg/L		0.00003	21-SEP-10
Barium (Ba)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Beryllium (Be)-Total			<0.00020		mg/L		0.0002	21-SEP-10
Bismuth (Bi)-Total			<0.000030		mg/L		0.00003	21-SEP-10
Boron (B)-Total			<0.0010		mg/L		0.001	21-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH/EC/ALK-ED		Water						
Batch	R1453131							
WG1158254-2	LCS							
Conductivity (EC)			100		%		90-110	30-AUG-10
WG1158254-3	LCS							
pH			7.00		pH		6.9-7.1	30-AUG-10
WG1158254-4	LCS							
Alkalinity, Total (as CaCO ₃)			97		%		85-115	30-AUG-10
WG1158254-5	LCS							
Conductivity (EC)			97		%		90-110	30-AUG-10
WG1158254-1	MB							
Bicarbonate (HCO ₃)			<5.0		mg/L		5	30-AUG-10
Carbonate (CO ₃)			<5.0		mg/L		5	30-AUG-10
Hydroxide (OH)			<5.0		mg/L		5	30-AUG-10
Alkalinity, Total (as CaCO ₃)			<5.0		mg/L		5	30-AUG-10
SO4-L-IC-ED		Water						
Batch	R1453429							
WG1158350-2	LCS							
Sulfate (SO ₄)			104		%		85-115	30-AUG-10
WG1158350-1	MB							
Sulfate (SO ₄)			<0.050		mg/L		0.05	30-AUG-10
SOLIDS-TOTSUS-ED		Water						
Batch	R1454396							
WG1159064-3	DUP	L912809-13						
Total Suspended Solids		8.0	7.0		mg/L	13	20	31-AUG-10
WG1159064-2	LCS							
Total Suspended Solids			104		%		85-115	31-AUG-10
WG1159064-1	MB							
Total Suspended Solids			<3.0		mg/L		3	31-AUG-10
C-INORG-ORG-SK		Soil						
Batch	R1457493							
WG1159690-1	DUP	L925358-5						
Inorganic Carbon		0.13	0.10		%	19	30	01-SEP-10
CaCO ₃ Equivalent		1.51	1.32		%	13	25	01-SEP-10
WG1159690-2	IRM	0.4%IC						
Inorganic Carbon			0.39		%		0.28-0.52	01-SEP-10
CaCO ₃ Equivalent			3.54		%		2.33-4.33	01-SEP-10
WG1159690-3	MB							
Inorganic Carbon			<0.10		%		0.1	01-SEP-10



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17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-INORG-ORG-SK		Soil						
Batch	R1457493							
WG1159690-3 MB								
CaCO3 Equivalent			<0.80		%		0.8	01-SEP-10
C-TOT-LECO-SK		Soil						
Batch	R1457490							
WG1159688-1 DUP		L925358-5						
Total Carbon by Combustion		6.2	6.2		%	0.15	10	01-SEP-10
WG1159688-2 IRM		2004_SOIL						
Total Carbon by Combustion			1.4		%		1.1-1.7	01-SEP-10
WG1159688-3 MB								
Total Carbon by Combustion			<0.1		%		0.1	01-SEP-10
HG-200.2-CVAA-ED		Soil						
Batch	R1460304							
WG1161323-3 CRM		TILL-1_SOIL						
Mercury (Hg)			96		%		80-120	07-SEP-10
WG1161323-4 CRM		PACS-2_SOIL						
Mercury (Hg)			99		%		80-120	07-SEP-10
WG1161323-6 DUP		L926074-6						
Mercury (Hg)		0.059	0.068		mg/kg	15	20	07-SEP-10
WG1161323-7 DUP		L926915-1						
Mercury (Hg)		<0.050	<0.050	RPD-NA	mg/kg	N/A	20	07-SEP-10
WG1161323-1 MB								
Mercury (Hg)			<0.050		mg/kg		0.05	07-SEP-10
WG1161323-2 MB								
Mercury (Hg)			<0.050		mg/kg		0.05	07-SEP-10
MET-200.2-MS-ED		Soil						
Batch	R1460123							
WG1161323-3 CRM		TILL-1_SOIL						
Aluminum (Al)			92		%		60-140	07-SEP-10
Antimony (Sb)			98		%		80-120	07-SEP-10
Arsenic (As)			99		%		80-120	07-SEP-10
Barium (Ba)			103		%		60-140	07-SEP-10
Chromium (Cr)			107		%		80-120	07-SEP-10
Cobalt (Co)			105		%		80-120	07-SEP-10
Copper (Cu)			103		%		80-120	07-SEP-10
Iron (Fe)			100		%		80-120	07-SEP-10
Lead (Pb)			94		%		80-120	



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED		Soil						
Batch	R1460123							
WG1161323-3	CRM	TILL-1_SOIL						
Lead (Pb)			94		%		80-120	07-SEP-10
Nickel (Ni)			105		%		80-120	07-SEP-10
Strontium (Sr)			99		%		60-140	07-SEP-10
Vanadium (V)			104		%		80-120	07-SEP-10
Zinc (Zn)			94		%		80-120	07-SEP-10
WG1161323-4	CRM	PACS-2_SOIL						
Aluminum (Al)			93		%		60-140	07-SEP-10
Antimony (Sb)			114		%		80-120	07-SEP-10
Arsenic (As)			99		%		80-120	07-SEP-10
Barium (Ba)			98		%		60-140	07-SEP-10
Cadmium (Cd)			108		%		60-140	07-SEP-10
Chromium (Cr)			107		%		80-120	07-SEP-10
Cobalt (Co)			101		%		80-120	07-SEP-10
Copper (Cu)			94		%		80-120	07-SEP-10
Iron (Fe)			107		%		80-120	07-SEP-10
Lead (Pb)			101		%		80-120	07-SEP-10
Molybdenum (Mo)			109		%		80-120	07-SEP-10
Nickel (Ni)			98		%		80-120	07-SEP-10
Strontium (Sr)			98		%		60-140	07-SEP-10
Tin (Sn)			115		%		80-120	07-SEP-10
Vanadium (V)			109		%		80-120	07-SEP-10
Zinc (Zn)			91		%		80-120	07-SEP-10
WG1161323-6	DUP	L926074-6						
Aluminum (Al)		11200	11300		mg/kg	0.41	50	07-SEP-10
Antimony (Sb)		0.85	0.35	DUP-H	mg/kg	0.51	0.4	07-SEP-10
Arsenic (As)		11.2	12.3		mg/kg	9.0	30	07-SEP-10
Barium (Ba)		289	268		mg/kg	7.8	50	07-SEP-10
Beryllium (Be)		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	07-SEP-10
Cadmium (Cd)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	07-SEP-10
Chromium (Cr)		25.3	25.2		mg/kg	0.44	30	07-SEP-10
Cobalt (Co)		14.0	14.5		mg/kg	3.7	30	07-SEP-10
Copper (Cu)		25.5	26.8		mg/kg	5.0	30	07-SEP-10
Iron (Fe)		36700	38300		mg/kg	4.4	30	07-SEP-10
Lead (Pb)		16.4	17.3		mg/kg			07-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3

Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED		Soil						
Batch	R1460123							
WG1161323-6	DUP	L926074-6						
Lead (Pb)		16.4	17.3		mg/kg	5.2	50	07-SEP-10
Molybdenum (Mo)		<1.0	1.1	RPD-NA	mg/kg	N/A	50	07-SEP-10
Nickel (Ni)		35.9	36.9		mg/kg	2.9	30	07-SEP-10
Selenium (Se)		0.85	0.90		mg/kg	5.8	30	07-SEP-10
Silver (Ag)		<1.0	<1.0	RPD-NA	mg/kg	N/A	50	07-SEP-10
Strontium (Sr)		40.6	39.2		mg/kg	3.5	50	07-SEP-10
Thallium (Tl)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	07-SEP-10
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	50	07-SEP-10
Uranium (U)		<2.0	<2.0	RPD-NA	mg/kg	N/A	30	07-SEP-10
Vanadium (V)		33.0	33.3		mg/kg	1.1	30	07-SEP-10
Zinc (Zn)		96	99		mg/kg	2.4	30	07-SEP-10
WG1161323-7	DUP	L926915-1						
Aluminum (Al)		6320	6170		mg/kg	2.3	50	07-SEP-10
Antimony (Sb)		0.40	0.37		mg/kg	6.8	30	07-SEP-10
Arsenic (As)		6.29	5.73		mg/kg	9.3	30	07-SEP-10
Barium (Ba)		169	168		mg/kg	0.49	50	07-SEP-10
Beryllium (Be)		<1.0	<1.0	RPD-NA	mg/kg	N/A	30	07-SEP-10
Cadmium (Cd)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	07-SEP-10
Chromium (Cr)		16.5	16.1		mg/kg	2.4	30	07-SEP-10
Cobalt (Co)		8.4	7.7		mg/kg	8.8	30	07-SEP-10
Copper (Cu)		15.5	14.8		mg/kg	4.8	30	07-SEP-10
Iron (Fe)		17400	16800		mg/kg	3.8	30	07-SEP-10
Lead (Pb)		7.4	7.1		mg/kg	4.9	50	07-SEP-10
Molybdenum (Mo)		1.2	1.1		mg/kg	7.7	50	07-SEP-10
Nickel (Ni)		23.7	21.9		mg/kg	7.8	30	07-SEP-10
Selenium (Se)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	07-SEP-10
Silver (Ag)		<1.0	<1.0	RPD-NA	mg/kg	N/A	50	07-SEP-10
Strontium (Sr)		42.3	37.9		mg/kg	11	50	07-SEP-10
Thallium (Tl)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	07-SEP-10
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	50	07-SEP-10
Uranium (U)		<2.0	<2.0	RPD-NA	mg/kg	N/A	30	07-SEP-10
Vanadium (V)		20.0	19.9		mg/kg	0.28	30	07-SEP-10
Zinc (Zn)		45	44		mg/kg	2.1	30	07-SEP-10



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Client: AECOM CANADA LTD.
 17007 107 AVE NW
 EDMONTON AB T5S 1G3
 Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED		Soil						
Batch R1460123								
WG1161323-1 MB								
Aluminum (Al)			<50		mg/kg		50	07-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	07-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	07-SEP-10
Barium (Ba)			<5.0		mg/kg		5	07-SEP-10
Beryllium (Be)			<1.0		mg/kg		1	07-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	07-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	07-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	07-SEP-10
Copper (Cu)			<2.0		mg/kg		2	07-SEP-10
Iron (Fe)			<200		mg/kg		200	07-SEP-10
Lead (Pb)			<5.0		mg/kg		5	07-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	07-SEP-10
Nickel (Ni)			<2.0		mg/kg		2	07-SEP-10
Selenium (Se)			<0.50		mg/kg		0.5	07-SEP-10
Silver (Ag)			<1.0		mg/kg		1	07-SEP-10
Strontium (Sr)			<1.0		mg/kg		1	07-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	07-SEP-10
Tin (Sn)			<5.0		mg/kg		5	07-SEP-10
Uranium (U)			<2.0		mg/kg		2	07-SEP-10
Vanadium (V)			<1.0		mg/kg		1	07-SEP-10
Zinc (Zn)			<10		mg/kg		10	07-SEP-10
WG1161323-2 MB								
Aluminum (Al)			<50		mg/kg		50	07-SEP-10
Antimony (Sb)			<0.20		mg/kg		0.2	07-SEP-10
Arsenic (As)			<0.20		mg/kg		0.2	07-SEP-10
Barium (Ba)			<5.0		mg/kg		5	07-SEP-10
Beryllium (Be)			<1.0		mg/kg		1	07-SEP-10
Cadmium (Cd)			<0.50		mg/kg		0.5	07-SEP-10
Chromium (Cr)			<0.50		mg/kg		0.5	07-SEP-10
Cobalt (Co)			<1.0		mg/kg		1	07-SEP-10
Copper (Cu)			<2.0		mg/kg		2	07-SEP-10
Iron (Fe)			<200		mg/kg		200	07-SEP-10
Lead (Pb)			<5.0		mg/kg		5	07-SEP-10
Molybdenum (Mo)			<1.0		mg/kg		1	07-SEP-10



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Client: AECOM CANADA LTD.
17007 107 AVE NW
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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-ED								
	Soil							
Batch	R1460123							
WG1161323-2	MB							
Nickel (Ni)			<2.0		mg/kg		2	07-SEP-10
Selenium (Se)			<0.50		mg/kg		0.5	07-SEP-10
Silver (Ag)			<1.0		mg/kg		1	07-SEP-10
Strontium (Sr)			<1.0		mg/kg		1	07-SEP-10
Thallium (Tl)			<0.50		mg/kg		0.5	07-SEP-10
Tin (Sn)			<5.0		mg/kg		5	07-SEP-10
Uranium (U)			<2.0		mg/kg		2	07-SEP-10
Vanadium (V)			<1.0		mg/kg		1	07-SEP-10
Zinc (Zn)			<10		mg/kg		10	07-SEP-10
PSA-1-ED								
	Soil							
Batch	R1477942							
WG1173152-1	DUP	L923229-26						
% Sand		40.4	41.0		%	1.5	10	25-SEP-10
% Silt		30.8	30.6		%	0.65	9.8	25-SEP-10
% Clay		28.8	28.4		%	1.4	10	25-SEP-10
WG1173152-2	MB							
% Sand			<1.0		%		1	25-SEP-10
% Silt			<1.0		%		1	25-SEP-10
% Clay			<1.0		%		1	25-SEP-10

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Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrate+Nitrite-N	1	26-AUG-10 09:30	30-AUG-10 00:00	48	86	hours	EHTL
	2	26-AUG-10 10:30	30-AUG-10 00:00	48	85	hours	EHTL
	3	26-AUG-10 12:30	30-AUG-10 00:00	48	84	hours	EHTL
Nitrate-N	1	26-AUG-10 09:30	30-AUG-10 00:00	48	86	hours	EHTL
	2	26-AUG-10 10:30	30-AUG-10 00:00	48	85	hours	EHTL
	3	26-AUG-10 12:30	30-AUG-10 00:00	48	84	hours	EHTL
Nitrite-N	1	26-AUG-10 09:30	30-AUG-10 00:00	48	86	hours	EHTL
	2	26-AUG-10 10:30	30-AUG-10 00:00	48	85	hours	EHTL
	3	26-AUG-10 12:30	30-AUG-10 00:00	48	84	hours	EHTL
Phosphorus, Total- Low Level	1	26-AUG-10 09:30	27-SEP-10 00:00	28	32	days	EHT
	2	26-AUG-10 10:30	27-SEP-10 00:00	28	32	days	EHT
	3	26-AUG-10 12:30	27-SEP-10 00:00	28	31	days	EHT
Cyanides							
Cyanide, Total	1	26-AUG-10 09:30	25-SEP-10 12:22	14	30	days	EHT
	2	26-AUG-10 10:30	25-SEP-10 12:23	14	30	days	EHT
	3	26-AUG-10 12:30	25-SEP-10 12:24	14	30	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
 EHTR: Exceeded ALS recommended hold time prior to sample receipt.
 EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
 EHT: Exceeded ALS recommended hold time prior to analysis.
 Rec. HT: ALS recommended hold time (see units).

Notes*:
 Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
 Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L925358 were received on 27-AUG-10 13:49.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



ANALYSIS REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01123.0

Date: 10-Sep-2010

ALS Laboratory Group
Environmental Div.
9936-67th Avenue
Edmonton, AB, T6P 0P5

Phone: (780) 413-8441
FAX: (780) 437-2680

Client Ref. L925358

attn: Christine Potts

3 water samples Sampled: 26-Aug-2010 Received: 31-Aug-2010 Page 1 of 1

<u>Results of Analysis</u>					
Sample	Test	Result	Units	Date	Method
L925358-1 R2-1 (Ref#2, Surface Water)	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
L925358-2 R2-2 (Ref#2, Surface Water)	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
L925358-3 R2-3 (Ref#2, Surface Water)	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA

Methods: ALPHA BQ-RAD-ALPHA alpha-particle spectrometry MDL 0.01 Bq/l

Units: Bq/l Becquerels per litre

These results relate only to the samples analysed and only to the items tested.
These results have not been corrected for blanks

10-Sep-2010 approved by: _____
Steven Simpson
Quality Manager

This test report shall not be reproduced, except in full, without written approval of Becquerel Laboratories Inc.



QUALITY REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01123.0

Date: 10-Sep-2010

Standard	Analyte	<u>Standards</u>		Result	Expected Result
		Units			
RA226.33	Ra-226	Bq/l		0.97	1.00

Analyte	<u>Blanks</u>	
	Units	Result
Ra-226	Bq/l	< 0.01

Analyte	Units	<u>Duplicates</u>	
		Result	Duplicate
Ra-226	Bq/l	< 0.01	< 0.01

Analyte	<u>Spikes</u>	
		% Recovery
Ra-226		85



AECOM CANADA LTD.
ATTN: COLLEEN PRATHER
17007 107 AVE NW
EDMONTON AB T5S 1G3
Phone: 780-486-7015

Date Received: 30-AUG-10
Report Date: 28-SEP-10 13:37 (MT)
Version: FINAL

Certificate of Analysis

Lab Work Order #: L925725
Project P.O. #: NOT SUBMITTED
Job Reference: 60147160
Legal Site Desc:
C of C Numbers: 10-062780

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LIMITED Part of the ALS Group A Campbell Brothers Limited Company

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-1	FC2-REF#1,SURFACE WATER							
Sampled By:	TH/SW on 27-AUG-10 @ 09:00							
Matrix:	WATER							
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		0.00754		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		0.00152		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		0.00178		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0026		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		1.09		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		0.00013		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		<0.00060		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00121		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		0.595		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		0.00998		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		0.000699		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		0.427		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		0.474		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		0.00559		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		0.00012		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		0.0390		0.0050	mg/L		24-SEP-10	R1477327
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		0.0942		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		0.0171		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total		0.00175		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total		0.00190		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total		0.0022		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total		0.955		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total		0.000079		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total		0.00016		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total		<0.00060		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total								

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-1 FC2-REF#1,SURFACE WATER							
Sampled By: TH/SW on 27-AUG-10 @ 09:00							
Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Molybdenum (Mo)-Total	<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.000650		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	0.435		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	0.474		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.00563		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	0.00025		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	<0.0050		0.0050	mg/L		17-SEP-10	R1470676
Cyanide, Total	<0.0020		0.0020	mg/L	25-SEP-10	25-SEP-10	R1478020
Cadmium (Cd)-Dissolved	<0.000010		0.000010	mg/L		21-SEP-10	R1478372
Dissolved Organic Carbon	3.1		1.0	mg/L		22-SEP-10	R1474506
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		23-SEP-10	R1476092
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		23-SEP-10	R1476092
Phosphorus, Total	0.0016		0.0010	mg/L		27-SEP-10	R1479153
Radium-226	See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L		23-SEP-10	R1475536
Total Organic Carbon	3.4		1.0	mg/L		22-SEP-10	R1474506
Total Suspended Solids	<3.0		3.0	mg/L		01-SEP-10	R1455904
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		31-AUG-10	R1455185
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	1.22		0.50	mg/L		24-SEP-10	R1477327
Magnesium (Mg)-Dissolved	0.68		0.10	mg/L		24-SEP-10	R1477327
Potassium (K)-Dissolved	0.68		0.10	mg/L		24-SEP-10	R1477327
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		24-SEP-10	R1477327
Fluoride by IC							
Fluoride (F)	<0.050		0.050	mg/L		31-AUG-10	R1455185
Ion Balance Calculation							
Ion Balance	Low EC			%		25-SEP-10	
TDS (Calculated)	5.1			mg/L		25-SEP-10	
Hardness (as CaCO3)	5.8			mg/L		25-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		31-AUG-10	R1455924
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		31-AUG-10	R1455924
Nitrite-N							
Nitrite-N	<0.0020		0.0020	mg/L		31-AUG-10	R1455924
Sulfate by IC (Low Level)							
Sulfate (SO4)	2.49		0.050	mg/L		31-AUG-10	R1455185
pH, Conductivity and Total Alkalinity							
pH	6.92		0.10	pH		31-AUG-10	R1454286
Conductivity (EC)	13.2		0.20	uS/cm		31-AUG-10	R1454286
Bicarbonate (HCO3)	<5.0		5.0	mg/L		31-AUG-10	R1454286

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-1	FC2-REF#1,SURFACE WATER							
Sampled By:	TH/SW on 27-AUG-10 @ 09:00							
Matrix:	WATER							
pH, Conductivity and Total Alkalinity								
Carbonate (CO3)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Hydroxide (OH)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		31-AUG-10	R1454286
L925725-2	SNP 925-20-EXP AREA, SURFACE WATER							
Sampled By:	TH/SW on 27-AUG-10 @ 10:30							
Matrix:	WATER							
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		0.0696		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		0.00547		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		0.00602		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0056		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		0.000083		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		5.35		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		0.000309		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		0.00111		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		0.00407		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		0.000057		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00538		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		2.38		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		0.0218		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		0.000156		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		0.0172		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		0.556		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		2.75	RRV	0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		0.0280		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		0.00045	RRV	0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		0.00058		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		0.000237		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		0.00827		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		0.407		0.0050	mg/L		24-SEP-10	R1477327
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		0.760		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		0.0864		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Total		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total		0.00672		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total		0.00631		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total		<0.000030		0.000030	mg/L			

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-2 SNP 925-20-EXP AREA, SURFACE WATER							
Sampled By: TH/SW on 27-AUG-10 @ 10:30							
Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Calcium (Ca)-Total	5.37		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total	0.000388		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	0.00120		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	0.00427		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00526		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	2.39		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	0.0226		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	0.000162		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.0175		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	0.550		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	2.72		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.0283		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	0.00070		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	0.000303		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	0.00823		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	0.0086		0.0050	mg/L		17-SEP-10	R1470676
Cyanide, Total	<0.0020		0.0020	mg/L	25-SEP-10	25-SEP-10	R1478020
Cadmium (Cd)-Dissolved	0.000080		0.000010	mg/L		21-SEP-10	R1478372
Dissolved Organic Carbon	10.4		1.0	mg/L		22-SEP-10	R1474506
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		23-SEP-10	R1476092
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		23-SEP-10	R1476092
Phosphorus, Total	0.0027		0.0010	mg/L		27-SEP-10	R1479153
Radium-226	See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total	0.000014		0.000010	mg/L		23-SEP-10	R1475536
Total Organic Carbon	10.7		1.0	mg/L		22-SEP-10	R1474506
Total Suspended Solids	<3.0		3.0	mg/L		01-SEP-10	R1455904
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	1.50		0.50	mg/L		31-AUG-10	R1455185
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	5.39		0.50	mg/L		24-SEP-10	R1477327
Magnesium (Mg)-Dissolved	2.29		0.10	mg/L		24-SEP-10	R1477327
Potassium (K)-Dissolved	0.76		0.10	mg/L		24-SEP-10	R1477327
Sodium (Na)-Dissolved	2.6		1.0	mg/L		24-SEP-10	R1477327
Fluoride by IC							
Fluoride (F)	0.066		0.050	mg/L		31-AUG-10	R1455185
Ion Balance Calculation							
Ion Balance	Low EC			%		25-SEP-10	
TDS (Calculated)	37.1			mg/L		25-SEP-10	
Hardness (as CaCO3)	22.9			mg/L		25-SEP-10	
Nitrate+Nitrite-N							
Nitrate+Nitrite-N	<0.0060		0.0060	mg/L		31-AUG-10	R1455924
Nitrate-N							
Nitrate-N	<0.0060		0.0060	mg/L		31-AUG-10	R1455924

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-2	SNP 925-20-EXP AREA, SURFACE WATER							
Sampled By: TH/SW on 27-AUG-10 @ 10:30								
Matrix: WATER								
Nitrite-N								
Nitrite-N		<0.0020		0.0020	mg/L		31-AUG-10	R1455924
Sulfate by IC (Low Level)								
Sulfate (SO4)		20.8		0.050	mg/L		31-AUG-10	R1455185
pH, Conductivity and Total Alkalinity								
pH		6.86		0.10	pH		31-AUG-10	R1454286
Conductivity (EC)		67.3		0.20	uS/cm		31-AUG-10	R1454286
Bicarbonate (HCO3)		7.6		5.0	mg/L		31-AUG-10	R1454286
Carbonate (CO3)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Hydroxide (OH)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Alkalinity, Total (as CaCO3)		6.2		5.0	mg/L		31-AUG-10	R1454286
L925725-3	SCD1-EXP. AREA, SURFACE WATER							
Sampled By: TH/SW on 27-AUG-10 @ 11:00								
Matrix: WATER								
Ultra-Low Metals - Dissolved								
Diss. Metals in Water by ICPMS (Ultra)								
Aluminum (Al)-Dissolved		0.0146		0.00030	mg/L		21-SEP-10	R1474628
Antimony (Sb)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Dissolved		0.00495		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Dissolved		0.00879		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Dissolved		<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Dissolved		0.0195		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Dissolved		0.000065		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Dissolved		17.1		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Dissolved		0.00344		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Dissolved		0.00527		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Dissolved		0.00909		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Dissolved		4.65		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Dissolved		0.0774		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Dissolved		0.000110		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Dissolved		0.0346		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Dissolved		1.90		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Dissolved		13.1		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Dissolved		0.0803		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Dissolved		<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Dissolved		0.0490		0.00080	mg/L		21-SEP-10	R1474628
Dissolved Fe in Water by ICPOES (Ultra)								
Iron (Fe)-Dissolved		0.0614		0.0050	mg/L		23-SEP-10	R1476096
Ultra-Low Metals								
Fe in Water by ICPOES (Undigested)								
Iron (Fe)-Total		0.157		0.0050	mg/L		22-SEP-10	R1473907
Metals in Water by ICPMS (Undigested)								
Aluminum (Al)-Total		0.0310		0.00030	mg/L		21-	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-3 SCD1-EXP. AREA, SURFACE WATER Sampled By: TH/SW on 27-AUG-10 @ 11:00 Matrix: WATER							
Metals in Water by ICPMS (Undigested)							
Antimony (Sb)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Arsenic (As)-Total	0.00816		0.000030	mg/L		21-SEP-10	R1474628
Barium (Ba)-Total	0.00880		0.000050	mg/L		21-SEP-10	R1474628
Beryllium (Be)-Total	<0.00020		0.00020	mg/L		21-SEP-10	R1474628
Bismuth (Bi)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Boron (B)-Total	0.0198		0.0010	mg/L		21-SEP-10	R1474628
Cadmium (Cd)-Total	0.000065		0.000050	mg/L		21-SEP-10	R1474628
Calcium (Ca)-Total	17.1		0.020	mg/L		21-SEP-10	R1474628
Chromium (Cr)-Total	0.000063		0.000060	mg/L		21-SEP-10	R1474628
Cobalt (Co)-Total	0.00352		0.00010	mg/L		21-SEP-10	R1474628
Copper (Cu)-Total	0.00597		0.00060	mg/L		21-SEP-10	R1474628
Lead (Pb)-Total	0.000062		0.000050	mg/L		21-SEP-10	R1474628
Lithium (Li)-Total	0.00931		0.00010	mg/L		21-SEP-10	R1474628
Magnesium (Mg)-Total	4.80		0.0040	mg/L		21-SEP-10	R1474628
Manganese (Mn)-Total	0.0800		0.00010	mg/L		21-SEP-10	R1474628
Molybdenum (Mo)-Total	0.000115		0.000060	mg/L		21-SEP-10	R1474628
Nickel (Ni)-Total	0.0354		0.000060	mg/L		21-SEP-10	R1474628
Potassium (K)-Total	1.93		0.020	mg/L		21-SEP-10	R1474628
Selenium (Se)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Silver (Ag)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Sodium (Na)-Total	13.6		0.0050	mg/L		21-SEP-10	R1474628
Strontium (Sr)-Total	0.0797		0.00010	mg/L		21-SEP-10	R1474628
Thallium (Tl)-Total	<0.000030		0.000030	mg/L		21-SEP-10	R1474628
Tin (Sn)-Total	<0.00010		0.00010	mg/L		21-SEP-10	R1474628
Titanium (Ti)-Total	0.00013		0.00010	mg/L		21-SEP-10	R1474628
Uranium (U)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Vanadium (V)-Total	<0.000050		0.000050	mg/L		21-SEP-10	R1474628
Zinc (Zn)-Total	0.0507		0.00080	mg/L		21-SEP-10	R1474628
Miscellaneous Parameters							
Ammonia-N	0.0086		0.0050	mg/L		17-SEP-10	R1470676
Cyanide, Total	<0.0020		0.0020	mg/L	25-SEP-10	25-SEP-10	R1478020
Cadmium (Cd)-Dissolved	0.000070		0.000010	mg/L		21-SEP-10	R1478372
Dissolved Organic Carbon	5.1		1.0	mg/L		22-SEP-10	R1474506
Mercury (Hg)-Total	<0.000020		0.000020	mg/L		23-SEP-10	R1476092
Mercury (Hg)-Dissolved	<0.000020		0.000020	mg/L		23-SEP-10	R1476092
Phosphorus, Total	0.0036		0.0010	mg/L		27-SEP-10	R1479153
Radium-226	See Attached					10-SEP-10	R1464651
Cadmium (Cd)-Total	0.000060		0.000010	mg/L		23-SEP-10	R1475536
Total Organic Carbon	5.2		1.0	mg/L		22-SEP-10	R1474506
Total Suspended Solids	<3.0		3.0	mg/L		01-SEP-10	R1455904
Routine Water Analysis - Low Level							
Chloride by IC							
Chloride (Cl)	11.0		0.50	mg/L		31-AUG-10	R1455185
Diss. Metals in Water by ICPOES (Low)							
Calcium (Ca)-Dissolved	18.9		0.50	mg/L		23-SEP-10	R1476096
Magnesium (Mg)-Dissolved	5.12		0.10	mg/L		23-SEP-10	R1476096
Potassium (K)-Dissolved	1.96		0.10	mg/L		23-SEP-10	R1476096
Sodium (Na)-Dissolved	15.3		1.0	mg/L		23-SEP-10	R1476096
Fluoride by IC							
Fluoride (F)	0.129		0.050	mg/L		31-AUG-10	R1455185
Ion Balance Calculation							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L925725-3	SCD1-EXP. AREA, SURFACE WATER							
Sampled By:	TH/SW on 27-AUG-10 @ 11:00							
Matrix:	WATER							
Ion Balance Calculation								
Ion Balance		105			%		24-SEP-10	
TDS (Calculated)		132			mg/L		24-SEP-10	
Hardness (as CaCO3)		68.3			mg/L		24-SEP-10	
Nitrate+Nitrite-N								
Nitrate+Nitrite-N		0.0125		0.0060	mg/L		31-AUG-10	R1455924
Nitrate-N								
Nitrate-N		0.0125		0.0060	mg/L		31-AUG-10	R1455924
Nitrite-N								
Nitrite-N		<0.0020		0.0020	mg/L		31-AUG-10	R1455924
Sulfate by IC (Low Level)								
Sulfate (SO4)		79.5		0.050	mg/L		31-AUG-10	R1455185
pH, Conductivity and Total Alkalinity								
pH		6.89		0.10	pH		31-AUG-10	R1454286
Conductivity (EC)		217		0.20	uS/cm		31-AUG-10	R1454286
Bicarbonate (HCO3)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Carbonate (CO3)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Hydroxide (OH)		<5.0		5.0	mg/L		31-AUG-10	R1454286
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		31-AUG-10	R1454286

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Dissolved Organic Carbon	MS-B	L925725-1, -2, -3
Matrix Spike	Total Organic Carbon	MS-B	L925725-1, -2, -3
Matrix Spike	Total Organic Carbon	MS-B	L925725-1, -2, -3

Sample Parameter Qualifier Key:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-DIS-ORG-ED	Water	Dissolved Organic Carbon	APHA 5310 B-Instrumental
C-TOT-ORG-ED	Water	Total Organic Carbon	APHA 5310 B-Instrumental
CD-D-CCME-FAL-MS-ED	Water	Diss. Cd in Water by ICPMS (CCME - FAL)	APHA 3125-ICP-MS
CD-T-CCME-FAL-MS-ED	Water	Total Cd in Water by ICPMS (CCME - FAL)	APHA 3125-ICP-MS
CL-IC-ED	Water	Chloride by IC	APHA 4110 B-ION CHROMATOGRAPHY
CN-TOT-WT	Water	Cyanide, Total	APHA 4500CN C E-STRONG ACID DIST COLORIM
Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.			
F-IC-ED	Water	Fluoride by IC	APHA 4110 B-ION CHROMATOGRAPHY
FE-D-NP-U-ICP-ED	Water	Dissolved Fe in Water by ICPOES (Ultra)	APHA 3120 B-ICP-OES
Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
FE-T-NP-U-ICP-ED	Water	Fe in Water by ICPOES (Undigested)	APHA 3120 B-ICP-OES
Ultra trace iron in water is analyzed by ICPOES, based on US EPA Method 6010C (Feb 2007). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine non-turbid acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
HG-D-L-CVAA-ED	Water	Mercury (Hg) - Dissolved	EPA 245.7 / EPA 245.1
HG-T-L-CVAA-ED	Water	Mercury (Hg)	EPA 245.7 / EPA 245.1
IONBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-D-L-ICP-ED	Water	Diss. Metals in Water by ICPOES (Low)	APHA 3120 B-ICP-OES
MET-D-NP-U-MS-ED	Water	Diss. Metals in Water by ICPMS (Ultra)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
MET-T-NP-U-MS-ED	Water	Metals in Water by ICPMS (Undigested)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
N2N3-LOW-ED	Water	Nitrate+Nitrite-N	APHA 4500 NO3E-Colorimetry
NH4-LOW-ED	Water	Ammonia-N Low Level	APHA 4500 NH3F-Colorimetry
NO2-LOW-ED	Water	Nitrite-N	APHA 4500 NO2B-Colorimetry
NO3-LOW-ED	Water	Nitrate-N	APHA 4500 NO3H-Colorimetry
P-TOTAL-LOW-ED	Water	Phosphorus, Total- Low Level	APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
RAD-RA226-BE	Water	Radium 226 (Becquerel)	MODIFIED EPA.903.0
SO4-L-IC-ED	Water	Sulfate by IC (Low Level)	APHA 4110 B-ION CHROMATOGRAPHY
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA
WT	ALS LABORATORY GROUP - WATERLOO, ONTARIO, CANADA
BE	Becquerel Laboratories Inc. - Mississauga, Ontario, Canada

Chain of Custody Numbers:

10-062780

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L925725

Report Date: 28-SEP-10

Page 1 of 15

Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-DIS-ORG-ED		Water						
Batch	R1474506							
WG1171436-12 CVS								
Dissolved Organic Carbon			138		%		80-160	23-SEP-10
WG1171436-29 CVS								
Dissolved Organic Carbon			111		%		80-160	28-SEP-10
WG1171436-3 CVS								
Dissolved Organic Carbon			123		%		80-160	22-SEP-10
WG1171436-19 DUP		L935981-5						
Dissolved Organic Carbon		11.0	12.3		mg/L	11	20	26-SEP-10
WG1171436-32 DUP		L934312-1						
Dissolved Organic Carbon		3.7	3.3		mg/L	12	20	28-SEP-10
WG1171436-8 DUP		L927771-7						
Dissolved Organic Carbon		2.3	2.3		mg/L	0.64	20	22-SEP-10
WG1171436-11 LCS								
Dissolved Organic Carbon			97		%		80-120	23-SEP-10
WG1171436-2 LCS								
Dissolved Organic Carbon			95		%		80-120	22-SEP-10
WG1171436-28 LCS								
Dissolved Organic Carbon			90		%		80-120	27-SEP-10
WG1171436-1 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	22-SEP-10
WG1171436-10 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	23-SEP-10
WG1171436-27 MB								
Dissolved Organic Carbon			<1.0		mg/L		1	27-SEP-10
WG1171436-20 MS		L935981-5						
Dissolved Organic Carbon			N/A	MS-B	%		-	26-SEP-10
WG1171436-9 MS		L927771-8						
Dissolved Organic Carbon			99		%		70-130	22-SEP-10
C-TOT-ORG-ED		Water						
Batch	R1474506							
WG1171436-12 CVS								
Total Organic Carbon			138		%		80-160	24-SEP-10
WG1171436-29 CVS								
Total Organic Carbon			111		%		80-160	28-SEP-10
WG1171436-3 CVS								
Total Organic Carbon			123		%		80-160	22-SEP-10
WG1171436-13 DUP		L931048-5						
Total Organic Carbon		3.2	3.1		mg/L	4.5	20	23-SEP-10



Quality Control Report

Workorder: L925725

Report Date: 28-SEP-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-ED		Water						
Batch	R1474506							
WG1171436-15 DUP		L931273-1						
Total Organic Carbon		<1.0	<1.0	RPD-NA	mg/L	N/A	20	23-SEP-10
WG1171436-17 DUP		L933880-7						
Total Organic Carbon		9.8	9.2		mg/L	6.5	20	23-SEP-10
WG1171436-21 DUP		L931474-2						
Total Organic Carbon		2.8	2.9		mg/L	1.4	20	24-SEP-10
WG1171436-23 DUP		L934144-1						
Total Organic Carbon		12.2	12.0		mg/L	2.1	20	24-SEP-10
WG1171436-25 DUP		L936024-3						
Total Organic Carbon		53.6	53.5		mg/L	0.22	20	27-SEP-10
WG1171436-30 DUP		L932732-10						
Total Organic Carbon		4.2	3.3	J	mg/L	0.9	2	27-SEP-10
WG1171436-4 DUP		L930275-1						
Total Organic Carbon		3.5	3.5		mg/L	2.7	20	22-SEP-10
WG1171436-6 DUP		L933983-3						
Total Organic Carbon		3.6	3.6		mg/L	0.55	20	23-SEP-10
WG1171436-11 LCS								
Total Organic Carbon			97		%		80-120	23-SEP-10
WG1171436-2 LCS								
Total Organic Carbon			95		%		80-120	22-SEP-10
WG1171436-28 LCS								
Total Organic Carbon			90		%		80-120	28-SEP-10
WG1171436-1 MB								
Total Organic Carbon			<1.0		mg/L		1	22-SEP-10
WG1171436-10 MB								
Total Organic Carbon			<1.0		mg/L		1	23-SEP-10
WG1171436-27 MB								
Total Organic Carbon			<1.0		mg/L		1	27-SEP-10
WG1171436-14 MS		L931048-5						
Total Organic Carbon			88		%		70-130	23-SEP-10
WG1171436-16 MS		L931273-1						
Total Organic Carbon			104		%		70-130	23-SEP-10
WG1171436-18 MS		L933880-7						
Total Organic Carbon			92		%		70-130	23-SEP-10
WG1171436-22 MS		L931474-2						
Total Organic Carbon			91		%		70-130	24-SEP-10
WG1171436-24 MS		L934144-1						
Total Organic Carbon			N/A	MS-B	%		-	24-SEP-10



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17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-ED	Water							
Batch R1455185								
WG1159047-2 LCS								
Fluoride (F)			105		%		85-115	31-AUG-10
WG1159047-1 MB								
Fluoride (F)			<0.050		mg/L		0.05	31-AUG-10
FE-D-NP-U-ICP-ED	Water							
Batch R1476096								
WG1172166-2 CRM		EU-H-3_OPTWATER						
WG1172166-1 MB								
Iron (Fe)-Dissolved			<0.0050		mg/L		0.005	23-SEP-10
Batch R1477327								
WG1172717-2 CRM		EU-H-3_OPTWATER						
WG1172717-1 MB								
Iron (Fe)-Dissolved			<0.0050		mg/L		0.005	24-SEP-10
FE-T-NP-U-ICP-ED	Water							
Batch R1473907								
WG1170911-2 DUP		L929483-6						
Iron (Fe)-Total		0.0103	0.0073	J	mg/L	0.0029	0.01	22-SEP-10
WG1170911-1 MB								
Iron (Fe)-Total			<0.0050		mg/L		0.005	22-SEP-10
HG-D-L-CVAA-ED	Water							
Batch R1476092								
WG1172018-2 LCS								
Mercury (Hg)-Dissolved			92		%		80-120	23-SEP-10
WG1172018-3 LCSD		WG1172018-2						
Mercury (Hg)-Dissolved		92	92		%	0.087	20	23-SEP-10
WG1172018-1 MB								
Mercury (Hg)-Dissolved			<0.000020		mg/L		0.00002	23-SEP-10
HG-T-L-CVAA-ED	Water							
Batch R1476092								
WG1172018-10 DUP		L930275-5						
Mercury (Hg)-Total		<0.020	<0.000020	RPD-NA	mg/L	N/A	20	23-SEP-10
WG1172018-2 LCS								
Mercury (Hg)-Total			92		%		80-120	23-SEP-10
WG1172018-3 LCSD		WG1172018-2						
Mercury (Hg)-Total		92	92		%	0.087	20	23-SEP-10
WG1172018-1 MB								
Mercury (Hg)-Total			<0.000020		mg/L		0.00002	23-SEP-10



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17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-L-CVAA-ED		Water						
Batch	R1476092							
WG1172018-11	MS	L930275-5						
Mercury (Hg)-Total			106		%		70-130	23-SEP-10
MET-D-L-ICP-ED		Water						
Batch	R1476096							
WG1172166-2	CRM	EU-H-3_OPTWATER						
WG1172166-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	23-SEP-10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	23-SEP-10
Potassium (K)-Dissolved			<0.10		mg/L		0.1	23-SEP-10
Sodium (Na)-Dissolved			<0.50		mg/L		0.5	23-SEP-10
Batch	R1477327							
WG1172717-2	CRM	EU-H-3_OPTWATER						
WG1172717-3	DUP	L931048-14						
Calcium (Ca)-Dissolved		1.80	1.73		mg/L	4.1	20	24-SEP-10
Magnesium (Mg)-Dissolved		1.06	1.05		mg/L	1.2	20	24-SEP-10
Potassium (K)-Dissolved		1.06	1.04		mg/L	2.1	20	24-SEP-10
Sodium (Na)-Dissolved		2.0	1.84		mg/L	5.9	20	24-SEP-10
WG1172717-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	24-SEP-10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	24-SEP-10
Potassium (K)-Dissolved			0.15		mg/L		0.1	24-SEP-10
Sodium (Na)-Dissolved			<0.50		mg/L		0.5	24-SEP-10
WG1172717-4	MS	L931048-14						
Calcium (Ca)-Dissolved			101		%		70-130	24-SEP-10
Magnesium (Mg)-Dissolved			96		%		70-130	24-SEP-10
Potassium (K)-Dissolved			84		%		70-130	24-SEP-10
Sodium (Na)-Dissolved			93		%		70-130	24-SEP-10
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2	CRM	1643E_WATER						
Aluminum (Al)-Dissolved			108		%		80-120	21-SEP-10
Antimony (Sb)-Dissolved			97		%		80-120	21-SEP-10
Arsenic (As)-Dissolved			102		%		80-120	21-SEP-10
Barium (Ba)-Dissolved			104		%		80-120	21-SEP-10
Beryllium (Be)-Dissolved			103		%		80-120	21-SEP-10



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EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Bismuth (Bi)-Dissolved			103		%		80-120	21-SEP-10
Boron (B)-Dissolved			95		%		80-120	21-SEP-10
Cadmium (Cd)-Dissolved			105		%		80-120	21-SEP-10
Calcium (Ca)-Dissolved			96		%		80-120	21-SEP-10
Chromium (Cr)-Dissolved			104		%		80-120	21-SEP-10
Cobalt (Co)-Dissolved			97		%		80-120	21-SEP-10
Copper (Cu)-Dissolved			104		%		80-120	21-SEP-10
Lead (Pb)-Dissolved			98		%		80-120	21-SEP-10
Lithium (Li)-Dissolved			115		%		80-120	21-SEP-10
Magnesium (Mg)-Dissolved			104		%		80-120	21-SEP-10
Manganese (Mn)-Dissolved			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Dissolved			98		%		80-120	21-SEP-10
Nickel (Ni)-Dissolved			103		%		80-120	21-SEP-10
Potassium (K)-Dissolved			95		%		80-120	21-SEP-10
Selenium (Se)-Dissolved			106		%		80-120	21-SEP-10
Sodium (Na)-Dissolved			104		%		80-120	21-SEP-10
Strontium (Sr)-Dissolved			104		%		80-120	21-SEP-10
Thallium (Tl)-Dissolved			100		%		80-120	21-SEP-10
Vanadium (V)-Dissolved			101		%		80-120	21-SEP-10
Zinc (Zn)-Dissolved			110		%		80-120	21-SEP-10
WG1170506-1 MB								
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	21-SEP-10
Antimony (Sb)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Arsenic (As)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Beryllium (Be)-Dissolved			<0.00020		mg/L		0.0002	21-SEP-10
Bismuth (Bi)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Boron (B)-Dissolved			<0.0010		mg/L		0.001	21-SEP-10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	21-SEP-10
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10



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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-1	MB							
Lithium (Li)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	21-SEP-10
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Molybdenum (Mo)-Dissolved			<0.000060		mg/L		0.00006	21-SEP-10
Nickel (Ni)-Dissolved			<0.00006		mg/L		0.00006	21-SEP-10
Potassium (K)-Dissolved			<0.020		mg/L		0.02	21-SEP-10
Selenium (Se)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	21-SEP-10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Thallium (Tl)-Dissolved			<0.000030		mg/L		0.00003	21-SEP-10
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	21-SEP-10
Uranium (U)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	21-SEP-10
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	21-SEP-10
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2	CRM	1643E_WATER						
Aluminum (Al)-Total			108		%		80-120	21-SEP-10
Antimony (Sb)-Total			97		%		80-120	21-SEP-10
Arsenic (As)-Total			102		%		80-120	21-SEP-10
Barium (Ba)-Total			104		%		80-120	21-SEP-10
Beryllium (Be)-Total			106		%		80-120	21-SEP-10
Bismuth (Bi)-Total			103		%		80-120	21-SEP-10
Boron (B)-Total			95		%		80-120	21-SEP-10
Cadmium (Cd)-Total			105		%		80-120	21-SEP-10
Calcium (Ca)-Total			96		%		80-120	21-SEP-10
Chromium (Cr)-Total			104		%		80-120	21-SEP-10
Cobalt (Co)-Total			97		%		80-120	21-SEP-10
Copper (Cu)-Total			104		%		80-120	21-SEP-10
Lead (Pb)-Total			98		%		80-120	21-SEP-10
Lithium (Li)-Total			115		%		80-120	21-SEP-10
Magnesium (Mg)-Total			104		%		80-120	21-SEP-10



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EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-2 CRM		1643E_WATER						
Magnesium (Mg)-Total			104		%		80-120	21-SEP-10
Manganese (Mn)-Total			102		%		80-120	21-SEP-10
Molybdenum (Mo)-Total			98		%		80-120	21-SEP-10
Nickel (Ni)-Total			103		%		80-120	21-SEP-10
Potassium (K)-Total			95		%		80-120	21-SEP-10
Selenium (Se)-Total			106		%		80-120	21-SEP-10
Silver (Ag)-Total			101		%		80-120	21-SEP-10
Sodium (Na)-Total			104		%		80-120	21-SEP-10
Strontium (Sr)-Total			104		%		80-120	21-SEP-10
Thallium (Tl)-Total			100		%		80-120	21-SEP-10
Vanadium (V)-Total			101		%		80-120	21-SEP-10
Zinc (Zn)-Total			110		%		80-120	21-SEP-10
WG1170506-3 DUP		L929483-1						
Aluminum (Al)-Total		0.00074	0.00044	J	mg/L	0.00030	0.0006	21-SEP-10
Antimony (Sb)-Total		0.000072	0.000071		mg/L	0.90	20	21-SEP-10
Arsenic (As)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Barium (Ba)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	21-SEP-10
Bismuth (Bi)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Boron (B)-Total		0.0047	0.0045		mg/L	4.9	20	21-SEP-10
Cadmium (Cd)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Calcium (Ca)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Chromium (Cr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Copper (Cu)-Total		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	21-SEP-10
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Lithium (Li)-Total		0.00015	0.00020	J	mg/L	0.00005	0.0002	21-SEP-10
Magnesium (Mg)-Total		N/A	<0.0040	RPD-NA	mg/L	N/A	20	21-SEP-10
Manganese (Mn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Molybdenum (Mo)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Nickel (Ni)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Potassium (K)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Selenium (Se)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10



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EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-MS-ED		Water						
Batch	R1474628							
WG1170506-3	DUP	L929483-1						
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Sodium (Na)-Total		N/A	<0.0050	RPD-NA	mg/L	N/A	20	21-SEP-10
Strontium (Sr)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Thallium (Tl)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Tin (Sn)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Titanium (Ti)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Uranium (U)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Vanadium (V)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Zinc (Zn)-Total		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	21-SEP-10
WG1170506-4	DUP	L930275-8						
Aluminum (Al)-Total		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	21-SEP-10
Antimony (Sb)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Arsenic (As)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Barium (Ba)-Total		<0.000050	0.000056	RPD-NA	mg/L	N/A	20	21-SEP-10
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	21-SEP-10
Bismuth (Bi)-Total		<0.000030	<0.000030	RPD-NA	mg/L	N/A	20	21-SEP-10
Boron (B)-Total		0.0023	0.0024		mg/L	1.1	20	21-SEP-10
Cadmium (Cd)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Calcium (Ca)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Chromium (Cr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Copper (Cu)-Total		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	21-SEP-10
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	21-SEP-10
Lithium (Li)-Total		0.00045	0.00046		mg/L	1.7	20	21-SEP-10
Magnesium (Mg)-Total		N/A	<0.0040	RPD-NA	mg/L	N/A	20	21-SEP-10
Manganese (Mn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Molybdenum (Mo)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Nickel (Ni)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	21-SEP-10
Potassium (K)-Total		N/A	<0.020	RPD-NA	mg/L	N/A	20	21-SEP-10
Selenium (Se)-Total		N/A	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10
Sodium (Na)-Total		N/A	<0.0050	RPD-NA	mg/L	N/A	20	21-SEP-10
Strontium (Sr)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	21-SEP-10



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Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-MS-ED	Water							
Batch R1474628								
WG1170506-1 MB								
Uranium (U)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Vanadium (V)-Total			<0.000050		mg/L		0.00005	21-SEP-10
Zinc (Zn)-Total			<0.00080		mg/L		0.0008	21-SEP-10
N2N3-LOW-ED	Water							
Batch R1455924								
WG1160048-4 DUP		L926122-2						
Nitrate+Nitrite-N		1.95	1.95		mg/L	0.23	20	31-AUG-10
WG1160048-3 LCS								
Nitrate+Nitrite-N			100		%		85-115	31-AUG-10
WG1160048-2 MB								
Nitrate+Nitrite-N			<0.0060		mg/L		0.006	31-AUG-10
WG1160048-5 MS		L926122-2						
Nitrate+Nitrite-N			99		%		73-121	31-AUG-10
NH4-LOW-ED	Water							
Batch R1470676								
WG1168804-11 DUP		L929851-5						
Ammonia-N		0.0210	0.0206		mg/L	1.9	10	17-SEP-10
WG1168804-13 DUP		L930476-5						
Ammonia-N		<0.0050	<0.0050	RPD-NA	mg/L	N/A	10	17-SEP-10
WG1168804-5 DUP		L928051-1						
Ammonia-N		0.0181	0.0191		mg/L	5.4	10	17-SEP-10
WG1168804-7 DUP		L928445-8						
Ammonia-N		0.0650	0.0659		mg/L	1.4	10	17-SEP-10
WG1168804-9 DUP		L928818-5						
Ammonia-N		<0.0050	<0.0050	RPD-NA	mg/L	N/A	10	17-SEP-10
WG1168804-3 LCS								
Ammonia-N			99		%		85-115	17-SEP-10
WG1168804-4 LCS								
Ammonia-N			97		%		85-115	17-SEP-10
WG1168804-2 MB								
Ammonia-N			<0.0050		mg/L		0.005	17-SEP-10
WG1168804-10 MS		L928818-15						
Ammonia-N			97		%		75-122	17-SEP-10
WG1168804-12 MS		L929852-5						
Ammonia-N			99		%		75-122	17-SEP-10
WG1168804-6 MS		L928158-28						



Quality Control Report

Workorder: L925725

Report Date: 28-SEP-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH4-LOW-ED		Water						
Batch	R1470676							
WG1168804-6	MS	L928158-28						
Ammonia-N			101		%		75-122	17-SEP-10
WG1168804-8	MS	L928445-18						
Ammonia-N			88		%		75-122	17-SEP-10
NO2-LOW-ED		Water						
Batch	R1455924							
WG1160048-4	DUP	L926122-2						
Nitrite-N		0.0510	0.0511		mg/L	0.20	9.1	31-AUG-10
WG1160048-3	LCS							
Nitrite-N			102		%		85-115	31-AUG-10
WG1160048-2	MB							
Nitrite-N			<0.0020		mg/L		0.002	31-AUG-10
WG1160048-5	MS	L926122-2						
Nitrite-N			103		%		78-122	31-AUG-10
P-TOTAL-LOW-ED		Water						
Batch	R1479153							
WG1172246-4	DUP	L930275-1						
Phosphorus, Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	9.7	27-SEP-10
WG1172246-6	DUP	L931048-1						
Phosphorus, Total		0.0023	0.0022		mg/L	4.4	9.7	27-SEP-10
WG1172246-3	LCS							
Phosphorus, Total			101		%		80-120	27-SEP-10
WG1172246-2	MB							
Phosphorus, Total			<0.0010		mg/L		0.001	27-SEP-10
WG1172246-5	MS	L930275-1						
Phosphorus, Total			99		%		70-130	27-SEP-10
WG1172246-7	MS	L931048-1						
Phosphorus, Total			101		%		70-130	27-SEP-10
PH/EC/ALK-ED		Water						
Batch	R1454286							
WG1159010-6	DUP	L925910-1						
pH		7.65	7.67	J	pH	0.02	0.2	31-AUG-10
Conductivity (EC)		1580	1580		uS/cm	0.062	10	31-AUG-10
Bicarbonate (HCO3)		1110	1100		mg/L	0.66	25	31-AUG-10
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	N/A	25	31-AUG-10
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	N/A	25	31-AUG-10
Alkalinity, Total (as CaCO3)		907	901		mg/L	0.66	6.5	31-AUG-10



Quality Control Report

Workorder: L925725

Report Date: 28-SEP-10

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Client: AECOM CANADA LTD.
17007 107 AVE NW
EDMONTON AB T5S 1G3
Contact: COLLEEN PRATHER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH/EC/ALK-ED		Water						
Batch	R1454286							
WG1159010-2	LCS							
Conductivity (EC)			99		%		90-110	31-AUG-10
WG1159010-3	LCS							
pH			7.04		pH		6.9-7.1	31-AUG-10
WG1159010-4	LCS							
Alkalinity, Total (as CaCO ₃)			98		%		85-115	31-AUG-10
WG1159010-5	LCS							
Conductivity (EC)			95		%		90-110	31-AUG-10
WG1159010-1	MB							
Bicarbonate (HCO ₃)			<5.0		mg/L		5	31-AUG-10
Carbonate (CO ₃)			<5.0		mg/L		5	31-AUG-10
Hydroxide (OH)			<5.0		mg/L		5	31-AUG-10
Alkalinity, Total (as CaCO ₃)			<5.0		mg/L		5	31-AUG-10
SO4-L-IC-ED		Water						
Batch	R1455185							
WG1159047-2	LCS							
Sulfate (SO ₄)			106		%		85-115	31-AUG-10
WG1159047-1	MB							
Sulfate (SO ₄)			<0.050		mg/L		0.05	31-AUG-10
SOLIDS-TOTSUS-ED		Water						
Batch	R1455904							
WG1159772-3	DUP	L926024-1						
Total Suspended Solids		4.0	4.0		mg/L	0.0	20	01-SEP-10
WG1159772-2	LCS							
Total Suspended Solids			98		%		85-115	01-SEP-10
WG1159772-1	MB							
Total Suspended Solids			<3.0		mg/L		3	01-SEP-10

Quality Control Report

Workorder: L925725

Report Date: 28-SEP-10

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Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L925725

Report Date: 28-SEP-10

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrate+Nitrite-N	1	27-AUG-10 09:00	31-AUG-10 00:00	48	87	hours	EHTR
	2	27-AUG-10 10:30	31-AUG-10 00:00	48	85	hours	EHTR
	3	27-AUG-10 11:00	31-AUG-10 00:00	48	85	hours	EHTR
Nitrate-N	1	27-AUG-10 09:00	31-AUG-10 00:00	48	87	hours	EHTR
	2	27-AUG-10 10:30	31-AUG-10 00:00	48	85	hours	EHTR
	3	27-AUG-10 11:00	31-AUG-10 00:00	48	85	hours	EHTR
Nitrite-N	1	27-AUG-10 09:00	31-AUG-10 00:00	48	87	hours	EHTR
	2	27-AUG-10 10:30	31-AUG-10 00:00	48	85	hours	EHTR
	3	27-AUG-10 11:00	31-AUG-10 00:00	48	85	hours	EHTR
Phosphorus, Total- Low Level	1	27-AUG-10 09:00	27-SEP-10 00:00	28	31	days	EHT
	2	27-AUG-10 10:30	27-SEP-10 00:00	28	31	days	EHT
	3	27-AUG-10 11:00	27-SEP-10 00:00	28	31	days	EHT
Cyanides							
Cyanide, Total	1	27-AUG-10 09:00	25-SEP-10 12:25	14	29	days	EHT
	2	27-AUG-10 10:30	25-SEP-10 12:26	14	29	days	EHT
	3	27-AUG-10 11:00	25-SEP-10 12:27	14	29	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
 EHTR: Exceeded ALS recommended hold time prior to sample receipt.
 EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
 EHT: Exceeded ALS recommended hold time prior to analysis.
 Rec. HT: ALS recommended hold time (see units).

Notes*:
 Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
 Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L925725 were received on 30-AUG-10 10:32.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



ANALYSIS REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01136.0

Date: 10-Sep-2010

ALS Laboratory Group
Environmental Div.
9936-67th Avenue
Edmonton, AB, T6P 0P5

Phone: (780) 413-8441
FAX: (780) 437-2680

Client Ref. L925725

attn: Christine Potts

3 water samples Sampled: 27-Aug-2010 Received: 01-Sep-2010 Page 1 of 1

<u>Results of Analysis</u>					
Sample	Test	Result	Units	Date	Method
L925725-1 FC2- Ref#1 Surface Water	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
L925725-2 SNP 925-20-EXP Area, Surface Water	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA
L925725-3 SCD1- EXP. AREA, Surface Water	Ra-226	< 0.01	Bq/l	09-Sep-2010	ALPHA

Methods: ALPHA BQ-RAD-ALPHA alpha-particle spectrometry MDL 0.01 Bq/l

Units: Bq/l Becquerels per litre

These results relate only to the samples analysed and only to the items tested.
These results have not been corrected for blanks

10-Sep-2010 approved by: _____
Steven Simpson
Quality Manager

This test report shall not be reproduced, except in full, without written approval of Becquerel Laboratories Inc.



QUALITY REPORT

Becquerel Laboratories Inc.
6790 Kitimat Rd., Unit 4
Mississauga, Ontario
Canada, L5N 5L9

Phone: (905) 826-3080
FAX: (905) 826-4151

Batch: T10-01136.0

Date: 10-Sep-2010

Standard	Analyte	<u>Standards</u>		Result	Expected Result
		Units			
RA226.33	Ra-226	Bq/l		0.97	1.00

Analyte	<u>Blanks</u>		Result
	Units		
Ra-226	Bq/l	<	0.01

Analyte	Units	<u>Duplicates</u>		Duplicate
		Result		
Ra-226	Bq/l	< 0.01	<	0.01

Analyte	<u>Spikes</u>		% Recovery
Ra-226			85

GENF 18.01 Front

Appendix F

Lupin Cycle 3 EEM Temperature Logger Raw Data

29-Jul-10

30-Jul-10

Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9722569)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
29/07/2010 0:18	15.127	29/07/2010 0:20	14.768	29/07/2010 0:21	16.463	29/07/2010 0:23	16.340	29/07/2010 0:23	18.481	29/07/2010 0:23	16.344	29/07/2010 0:03	16.344
29/07/2010 0:48	14.649	29/07/2010 0:50	14.337	29/07/2010 0:51	16.106	29/07/2010 0:52	15.986	29/07/2010 0:53	18.152	29/07/2010 0:53	16.129	29/07/2010 0:33	16.106
29/07/2010 1:18	14.218	29/07/2010 1:20	13.906	29/07/2010 1:21	15.772	29/07/2010 1:22	15.676	29/07/2010 1:23	17.772	29/07/2010 1:23	15.867	29/07/2010 1:03	15.891
29/07/2010 1:48	13.891	29/07/2010 1:50	13.642	29/07/2010 1:51	15.485	29/07/2010 1:52	15.414	29/07/2010 1:53	17.391	29/07/2010 1:53	15.608	29/07/2010 1:33	15.632
29/07/2010 2:18	13.57	29/07/2010 2:20	13.449	29/07/2010 2:21	15.294	29/07/2010 2:22	15.27	29/07/2010 2:23	17.13	29/07/2010 2:23	15.485	29/07/2010 2:03	15.461
29/07/2010 2:48	13.305	29/07/2010 2:50	13.209	29/07/2010 2:51	15.079	29/07/2010 2:52	15.103	29/07/2010 2:53	16.915	29/07/2010 2:53	15.27	29/07/2010 2:33	15.294
29/07/2010 3:18	12.992	29/07/2010 3:20	12.823	29/07/2010 3:21	14.84	29/07/2010 3:22	14.864	29/07/2010 3:23	16.701	29/07/2010 3:23	15.079	29/07/2010 3:03	15.151
29/07/2010 3:48	12.705	29/07/2010 3:50	12.534	29/07/2010 3:51	14.601	29/07/2010 3:52	14.601	29/07/2010 3:53	16.511	29/07/2010 3:53	14.84	29/07/2010 3:33	15.011
29/07/2010 4:18	12.461	29/07/2010 4:20	12.364	29/07/2010 4:21	14.385	29/07/2010 4:22	14.385	29/07/2010 4:23	16.153	29/07/2010 4:23	14.601	29/07/2010 4:03	14.664
29/07/2010 4:48	12.292	29/07/2010 4:50	12.171	29/07/2010 4:51	14.17	29/07/2010 4:52	14.194	29/07/2010 4:53	15.939	29/07/2010 4:53	14.433	29/07/2010 4:33	14.673
29/07/2010 5:18	12.147	29/07/2010 5:20	11.953	29/07/2010 5:21	13.978	29/07/2010 5:22	14.002	29/07/2010 5:23	15.748	29/07/2010 5:23	14.314	29/07/2010 5:03	14.529
29/07/2010 5:48	12.122	29/07/2010 5:50	11.977	29/07/2010 5:51	13.867	29/07/2010 5:52	13.93	29/07/2010 5:53	15.652	29/07/2010 5:53	14.242	29/07/2010 5:33	14.457
29/07/2010 6:18	12.05	29/07/2010 6:20	12.001	29/07/2010 6:21	13.786	29/07/2010 6:22	13.862	29/07/2010 6:23	15.495	29/07/2010 6:23	14.098	29/07/2010 6:03	14.457
29/07/2010 6:48	12.025	29/07/2010 6:50	12.001	29/07/2010 6:51	13.738	29/07/2010 6:52	13.906	29/07/2010 6:53	15.366	29/07/2010 6:53	14.074	29/07/2010 6:33	14.433
29/07/2010 7:18	12.05	29/07/2010 7:20	12.122	29/07/2010 7:21	13.738	29/07/2010 7:22	14.002	29/07/2010 7:23	15.247	29/07/2010 7:23	13.978	29/07/2010 7:03	14.409
29/07/2010 7:48	12.122	29/07/2010 7:50	12.195	29/07/2010 7:51	13.763	29/07/2010 7:52	14.074	29/07/2010 7:53	15.366	29/07/2010 7:53	14.17	29/07/2010 7:33	14.457
29/07/2010 8:18	12.364	29/07/2010 8:20	12.534	29/07/2010 8:21	13.906	29/07/2010 8:22	14.266	29/07/2010 8:23	15.557	29/07/2010 8:23	14.361	29/07/2010 8:03	14.664
29/07/2010 8:48	12.727	29/07/2010 8:50	13.04	29/07/2010 8:51	14.122	29/07/2010 8:52	14.505	29/07/2010 8:53	15.772	29/07/2010 8:53	14.625	29/07/2010 8:33	15.127
29/07/2010 9:18	13.185	29/07/2010 9:20	13.666	29/07/2010 9:21	14.409	29/07/2010 9:22	14.864	29/07/2010 9:23	16.034	29/07/2010 9:23	14.984	29/07/2010 9:03	15.438
29/07/2010 9:48	13.714	29/07/2010 9:50	14.314	29/07/2010 9:51	14.721	29/07/2010 9:52	15.294	29/07/2010 9:53	16.415	29/07/2010 9:53	15.349	29/07/2010 9:33	15.796
29/07/2010 10:18	14.314	29/07/2010 10:20	15.031	29/07/2010 10:21	15.103	29/07/2010 10:22	15.748	29/07/2010 10:23	16.82	29/07/2010 10:23	15.748	29/07/2010 10:03	16.177
29/07/2010 10:48	15.031	29/07/2010 10:50	15.843	29/07/2010 10:51	15.533	29/07/2010 10:52	16.272	29/07/2010 10:53	17.201	29/07/2010 10:53	16.153	29/07/2010 10:33	16.582
29/07/2010 11:18	15.724	29/07/2010 11:20	16.677	29/07/2010 11:21	16.034	29/07/2010 11:22	16.888	29/07/2010 11:23	17.701	29/07/2010 11:23	16.63	29/07/2010 11:03	16.778
29/07/2010 11:48	16.487	29/07/2010 11:50	17.589	29/07/2010 11:51	16.534	29/07/2010 11:52	17.486	29/07/2010 11:53	18.296	29/07/2010 11:53	17.11	29/07/2010 11:33	17.415
29/07/2010 12:18	17.272	29/07/2010 12:20	18.414	29/07/2010 12:21	17.058	29/07/2010 12:22	18.105	29/07/2010 12:23	18.889	29/07/2010 12:23	17.695	29/07/2010 12:03	17.843
29/07/2010 12:48	18.033	29/07/2010 12:50	19.151	29/07/2010 12:51	17.653	29/07/2010 12:52	18.771	29/07/2010 12:53	19.365	29/07/2010 12:53	18.033	29/07/2010 12:33	18.271
29/07/2010 13:18	18.842	29/07/2010 13:20	20.103	29/07/2010 13:21	18.247	29/07/2010 13:22	19.48	29/07/2010 13:23	19.722	29/07/2010 13:23	18.509	29/07/2010 13:03	18.604
29/07/2010 13:48	19.579	29/07/2010 13:50	20.984	29/07/2010 13:51	18.747	29/07/2010 13:52	19.912	29/07/2010 13:53	20.336	29/07/2010 13:53	18.296	29/07/2010 13:33	18.715
29/07/2010 14:18	19.817	29/07/2010 14:20	20.777	29/07/2010 14:21	19.807	29/07/2010 14:22	19.912	29/07/2010 14:23	20.336	29/07/2010 14:23	18.178	29/07/2010 14:03	18.379
29/07/2010 14:48	19.888	29/07/2010 14:50	20.579	29/07/2010 14:51	19.103	29/07/2010 14:52	19.936	29/07/2010 14:53	19.365	29/07/2010 14:53	18.461	29/07/2010 14:33	18.771
29/07/2010 15:18	20.15	29/07/2010 15:20	20.984	29/07/2010 15:21	19.508	29/07/2010 15:22	20.246	29/07/2010 15:23	19.603	29/07/2010 15:23	18.224	29/07/2010 15:03	18.913
29/07/2010 15:48	20.388	29/07/2010 15:50	20.96	29/07/2010 15:51	19.777	29/07/2010 15:52	20.555	29/07/2010 15:53	20.822	29/07/2010 15:53	18.58	29/07/2010 15:33	18.995
29/07/2010 16:18	20.777	29/07/2010 16:20	21.366	29/07/2010 16:21	19.984	29/07/2010 16:22	20.793	29/07/2010 16:23	20.865	29/07/2010 16:23	19.032	29/07/2010 16:03	19.127
29/07/2010 16:48	20.674	29/07/2010 16:50	20.96	29/07/2010 16:51	20.198	29/07/2010 16:52	20.984	29/07/2010 16:53	20.984	29/07/2010 16:53	19.222	29/07/2010 16:33	19.127
29/07/2010 17:18	20.674	29/07/2010 17:20	21.008	29/07/2010 17:21	20.246	29/07/2010 17:22	20.913	29/07/2010 17:23	20.674	29/07/2010 17:23	19.08	29/07/2010 17:03	19.127
29/07/2010 17:48	20.484	29/07/2010 17:50	20.555	29/07/2010 17:51	20.055	29/07/2010 17:52	20.633	29/07/2010 17:53	20.46	29/07/2010 17:53	18.913	29/07/2010 17:33	19.008
29/07/2010 18:18	20.103	29/07/2010 18:20	20.031	29/07/2010 18:21	19.888	29/07/2010 18:22	20.246	29/07/2010 18:23	20.579	29/07/2010 18:23	18.961	29/07/2010 18:03	18.995
29/07/2010 18:48	19.777	29/07/2010 18:50	19.793	29/07/2010 18:51	19.817	29/07/2010 18:52	20.055	29/07/2010 18:53	20.531	29/07/2010 18:53	19.151	29/07/2010 18:33	18.794
29/07/2010 19:18	19.603	29/07/2010 19:20	19.912	29/07/2010 19:21	19.793	29/07/2010 19:22	20.055	29/07/2010 19:23	20.555	29/07/2010 19:23	19.294	29/07/2010 19:03	18.652
29/07/2010 19:48	19.484	29/07/2010 19:50	19.651	29/07/2010 19:51	19.651	29/07/2010 19:52	19.888	29/07/2010 19:53	20.388	29/07/2010 19:53	19.222	29/07/2010 19:33	18.509
29/07/2010 20:18	19.175	29/07/2010 20:20	19.175	29/07/2010 20:21	19.389	29/07/2010 20:22	19.579	29/07/2010 20:23	20.103	29/07/2010 20:23	19.085	29/07/2010 20:03	18.995
29/07/2010 20:48	18.747	29/07/2010 20:50	18.652	29/07/2010 20:51	19.127	29/07/2010 20:52	19.246	29/07/2010 20:53	19.888	29/07/2010 20:53	18.747	29/07/2010 20:33	18.057
29/07/2010 21:18	18.343	29/07/2010 21:20	18.247	29/07/2010 21:21	18.889	29/07/2010 21:22	18.937	29/07/2010 21:23	19.722	29/07/2010 21:23	18.461	29/07/2010 21:03	17.819
29/07/2010 21:48	17.962	29/07/2010 21:50	17.867	29/07/2010 21:51	18.628	29/07/2010 21:52	18.628	29/07/2010 21:53	19.484	29/07/2010 21:53	18.271	29/07/2010 21:33	17.605
29/07/2010 22:18	17.605	29/07/2010 22:20	17.463	29/07/2010 22:21	18.319	29/07/2010 22:22	18.319	29/07/2010 22:23	19.199	29/07/2010 22:23	18.061	29/07/2010 22:03	17.896
29/07/2010 22:48	17.201	29/07/2010 22:50	16.963	29/07/2010 22:51	18.01	29/07/2010 22:52	17.986	29/07/2010 22:53	18.965	29/07/2010 22:53	17.819	29/07/2010 22:33	17.725
29/07/2010 23:18	16.796	29/07/2010 23:20	16.534	29/07/2010 23:21	17.724	29/07/2010 23:22	17.701	29/07/2010 23:23	18.794	29/07/2010 23:23	17.629	29/07/2010 23:03	17.058
29/07/2010 23:48	16.439	29/07/2010 23:50	16.201	29/07/2010 23:51	17.463	29/07/2010 23:52	17.463	29/07/2010 23:53	18.652	29/07/2010 23:53	17.439	29/07/2010 23:33	16.852
30/07/2010 0:18	16.439	30/07/2010 0:20	16.201	30/07/2010 0:21	17.463	30/07/2010 0:22	17.463	30/07/2010 0:23	18.652	30/07/2010 0:23	17.439	30/07/2010 0:03	16.852
30/07/2010 0:48	15.891	30/07/2010 0:50	15.676	30/07/2010 0:51	17.058	30/07/2010 0:52	17.106	30/07/2010 0:53	18.39	30/07/2010 0:53	17.058	30/07/2010 0:33	16.677
30/07/2010 1:18	15.629	30/07/2010 1:20	15.414	30/07/2010 1:21	16.844	30/07/2010 1:22	16.939	30/07/2010 1:23	18.247	30/07/2010 1:23	16.915	30/07/2010 1:03	16.588
30/07/2010 1:48	15.386	30/07/2010 1:50	15.199	30/07/2010 1:51	16.701	30/07/2010 1:52	16.796	30/07/2010 1:53	18.129	30/07/2010 1:53	16.796	30/07/2010 1:33	16.487
30/07/2010 2:18	15.168	30/07/2010 2:20	14.984	30/07/2010 2:21	16.485	30/07/2010 2:22	16.582	30/07/2010 2:23	17.915	30/07/2010 2:23	16.582	30/07/2010 2:03	16.272
30/07/2010 2:48	14.84	30/07/201											

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
31/07/2010 0:18	14.601	31/07/2010 0:20	14.218	31/07/2010 0:21	15.724	31/07/2010 0:23	15.605	31/07/2010 0:23	16.344	31/07/2010 0:23	16.082	31/07/2010 0:03	16.082
31/07/2010 0:48	14.337	31/07/2010 0:50	14.002	31/07/2010 0:51	15.509	31/07/2010 0:52	15.39	31/07/2010 0:53	16.177	31/07/2010 0:53	15.891	31/07/2010 0:33	15.939
31/07/2010 1:18	14.122	31/07/2010 1:20	13.834	31/07/2010 1:21	15.294	31/07/2010 1:22	15.223	31/07/2010 1:23	15.986	31/07/2010 1:23	15.7	31/07/2010 1:03	15.840
31/07/2010 1:48	13.882	31/07/2010 1:50	13.618	31/07/2010 1:51	15.079	31/07/2010 1:52	15.001	31/07/2010 1:53	15.7	31/07/2010 1:53	15.485	31/07/2010 1:33	15.724
31/07/2010 2:18	13.57	31/07/2010 2:20	13.305	31/07/2010 2:21	14.84	31/07/2010 2:22	14.816	31/07/2010 2:23	15.485	31/07/2010 2:23	15.27	31/07/2010 2:03	15.581
31/07/2010 2:48	13.281	31/07/2010 2:50	13.137	31/07/2010 2:51	14.649	31/07/2010 2:52	14.601	31/07/2010 2:53	15.247	31/07/2010 2:53	14.984	31/07/2010 2:33	15.438
31/07/2010 3:18	13.016	31/07/2010 3:20	12.775	31/07/2010 3:21	14.409	31/07/2010 3:22	14.337	31/07/2010 3:23	14.96	31/07/2010 3:23	14.745	31/07/2010 3:03	15.294
31/07/2010 3:48	12.705	31/07/2010 3:50	12.457	31/07/2010 3:51	14.17	31/07/2010 3:52	14.074	31/07/2010 3:53	14.697	31/07/2010 3:53	14.555	31/07/2010 3:33	15.107
31/07/2010 4:18	12.389	31/07/2010 4:20	12.171	31/07/2010 4:21	13.93	31/07/2010 4:22	13.81	31/07/2010 4:23	14.505	31/07/2010 4:23	14.337	31/07/2010 4:03	14.984
31/07/2010 4:48	12.122	31/07/2010 4:50	11.904	31/07/2010 4:51	13.69	31/07/2010 4:52	13.57	31/07/2010 4:53	14.337	31/07/2010 4:53	14.17	31/07/2010 4:33	14.864
31/07/2010 5:18	11.88	31/07/2010 5:20	11.71	31/07/2010 5:21	13.449	31/07/2010 5:22	13.353	31/07/2010 5:23	14.146	31/07/2010 5:23	14.026	31/07/2010 5:03	14.745
31/07/2010 5:48	11.686	31/07/2010 5:50	11.565	31/07/2010 5:51	13.287	31/07/2010 5:52	13.206	31/07/2010 5:53	14.026	31/07/2010 5:53	13.906	31/07/2010 5:33	14.546
31/07/2010 6:18	11.565	31/07/2010 6:20	11.589	31/07/2010 6:21	13.233	31/07/2010 6:22	13.233	31/07/2010 6:23	14.026	31/07/2010 6:23	13.882	31/07/2010 6:03	14.601
31/07/2010 6:48	11.565	31/07/2010 6:50	11.759	31/07/2010 6:51	13.261	31/07/2010 6:52	13.353	31/07/2010 6:53	14.05	31/07/2010 6:53	13.93	31/07/2010 6:33	14.601
31/07/2010 7:18	11.637	31/07/2010 7:20	11.977	31/07/2010 7:21	13.261	31/07/2010 7:22	13.425	31/07/2010 7:23	14.122	31/07/2010 7:23	13.93	31/07/2010 7:03	14.625
31/07/2010 7:48	11.734	31/07/2010 7:50	12.147	31/07/2010 7:51	13.395	31/07/2010 7:52	13.497	31/07/2010 7:53	14.146	31/07/2010 7:53	13.93	31/07/2010 7:33	14.697
31/07/2010 8:18	11.88	31/07/2010 8:20	12.364	31/07/2010 8:21	13.329	31/07/2010 8:22	13.594	31/07/2010 8:23	14.194	31/07/2010 8:23	13.93	31/07/2010 8:03	14.768
31/07/2010 8:48	12.025	31/07/2010 8:50	12.582	31/07/2010 8:51	13.377	31/07/2010 8:52	13.69	31/07/2010 8:53	14.242	31/07/2010 8:53	13.906	31/07/2010 8:33	14.792
31/07/2010 9:18	12.147	31/07/2010 9:20	12.703	31/07/2010 9:21	13.425	31/07/2010 9:22	13.762	31/07/2010 9:23	14.29	31/07/2010 9:23	13.954	31/07/2010 9:03	14.816
31/07/2010 9:48	12.364	31/07/2010 9:50	12.986	31/07/2010 9:51	13.497	31/07/2010 9:52	13.804	31/07/2010 9:53	14.385	31/07/2010 9:53	14.06	31/07/2010 9:33	14.96
31/07/2010 10:18	12.63	31/07/2010 10:20	13.161	31/07/2010 10:21	13.618	31/07/2010 10:22	13.954	31/07/2010 10:23	14.577	31/07/2010 10:23	14.098	31/07/2010 10:03	15.031
31/07/2010 10:48	12.871	31/07/2010 10:50	13.449	31/07/2010 10:51	13.738	31/07/2010 10:52	14.098	31/07/2010 10:53	14.577	31/07/2010 10:53	14.098	31/07/2010 10:33	15.031
31/07/2010 11:18	13.186	31/07/2010 11:20	13.906	31/07/2010 11:21	13.882	31/07/2010 11:22	14.314	31/07/2010 11:23	14.577	31/07/2010 11:23	14.146	31/07/2010 11:03	15.074
31/07/2010 11:48	13.497	31/07/2010 11:50	14.205	31/07/2010 11:51	14.026	31/07/2010 11:52	14.484	31/07/2010 11:53	14.984	31/07/2010 11:53	14.385	31/07/2010 11:33	15.294
31/07/2010 12:18	13.69	31/07/2010 12:20	14.361	31/07/2010 12:21	14.146	31/07/2010 12:22	14.601	31/07/2010 12:23	15.008	31/07/2010 12:23	14.509	31/07/2010 12:03	15.414
31/07/2010 12:48	13.978	31/07/2010 12:50	14.601	31/07/2010 12:51	14.314	31/07/2010 12:52	14.768	31/07/2010 12:53	15.175	31/07/2010 12:53	14.697	31/07/2010 12:33	15.605
31/07/2010 13:18	14.266	31/07/2010 13:20	14.864	31/07/2010 13:21	14.457	31/07/2010 13:22	14.984	31/07/2010 13:23	15.461	31/07/2010 13:23	14.816	31/07/2010 13:03	15.676
31/07/2010 13:48	14.481	31/07/2010 13:50	15.008	31/07/2010 13:51	14.768	31/07/2010 13:52	15.318	31/07/2010 13:53	15.829	31/07/2010 13:53	15.49	31/07/2010 13:33	15.939
31/07/2010 14:18	14.697	31/07/2010 14:20	15.247	31/07/2010 14:21	15.318	31/07/2010 14:22	15.829	31/07/2010 14:23	16.344	31/07/2010 14:23	15.986	31/07/2010 14:03	16.177
31/07/2010 14:48	14.816	31/07/2010 14:50	15.318	31/07/2010 14:51	15.366	31/07/2010 14:52	16.034	31/07/2010 14:53	15.939	31/07/2010 14:53	15.939	31/07/2010 14:33	16.153
31/07/2010 15:18	14.984	31/07/2010 15:20	15.533	31/07/2010 15:21	15.587	31/07/2010 15:22	16.177	31/07/2010 15:23	15.939	31/07/2010 15:23	15.438	31/07/2010 15:03	16.249
31/07/2010 15:48	15.127	31/07/2010 15:50	15.581	31/07/2010 15:51	15.629	31/07/2010 15:52	16.201	31/07/2010 15:53	15.891	31/07/2010 15:53	15.414	31/07/2010 15:33	16.106
31/07/2010 16:18	15.247	31/07/2010 16:20	15.7	31/07/2010 16:21	15.7	31/07/2010 16:22	16.201	31/07/2010 16:23	15.891	31/07/2010 16:23	15.569	31/07/2010 16:03	16.275
31/07/2010 16:48	15.414	31/07/2010 16:50	15.891	31/07/2010 16:51	15.819	31/07/2010 16:52	16.296	31/07/2010 16:53	16.059	31/07/2010 16:53	15.652	31/07/2010 16:33	16.296
31/07/2010 17:18	15.605	31/07/2010 17:20	16.177	31/07/2010 17:21	15.939	31/07/2010 17:22	16.392	31/07/2010 17:23	16.272	31/07/2010 17:23	15.724	31/07/2010 17:03	16.392
31/07/2010 17:48	15.772	31/07/2010 17:50	16.153	31/07/2010 17:51	15.963	31/07/2010 17:52	16.415	31/07/2010 17:53	16.415	31/07/2010 17:53	15.939	31/07/2010 17:33	16.511
31/07/2010 18:18	15.845	31/07/2010 18:20	16.392	31/07/2010 18:21	15.939	31/07/2010 18:22	16.392	31/07/2010 18:23	16.463	31/07/2010 18:23	15.891	31/07/2010 18:03	16.586
31/07/2010 18:48	15.748	31/07/2010 18:50	16.106	31/07/2010 18:51	15.915	31/07/2010 18:52	16.296	31/07/2010 18:53	16.344	31/07/2010 18:53	15.796	31/07/2010 18:33	16.511
31/07/2010 19:18	15.581	31/07/2010 19:20	15.891	31/07/2010 19:21	15.891	31/07/2010 19:22	16.201	31/07/2010 19:23	16.272	31/07/2010 19:23	15.748	31/07/2010 19:03	16.463
31/07/2010 19:48	15.461	31/07/2010 19:50	15.7	31/07/2010 19:51	15.843	31/07/2010 19:52	16.062	31/07/2010 19:53	16.177	31/07/2010 19:53	15.629	31/07/2010 19:33	16.366
31/07/2010 20:18	15.318	31/07/2010 20:20	15.533	31/07/2010 20:21	15.748	31/07/2010 20:22	15.963	31/07/2010 20:23	16.034	31/07/2010 20:23	15.49	31/07/2010 20:03	16.249
31/07/2010 20:48	15.151	31/07/2010 20:50	15.318	31/07/2010 20:51	15.652	31/07/2010 20:52	15.819	31/07/2010 20:53	15.891	31/07/2010 20:53	15.581	31/07/2010 20:33	16.106
31/07/2010 21:18	14.936	31/07/2010 21:20	15.079	31/07/2010 21:21	15.509	31/07/2010 21:22	15.652	31/07/2010 21:23	15.748	31/07/2010 21:23	15.533	31/07/2010 21:03	15.963
31/07/2010 21:48	14.697	31/07/2010 21:50	14.792	31/07/2010 21:51	15.342	31/07/2010 21:52	15.414	31/07/2010 21:53	15.605	31/07/2010 21:53	15.414	31/07/2010 21:33	15.819
31/07/2010 22:18	14.409	31/07/2010 22:20	14.453	31/07/2010 22:21	15.175	31/07/2010 22:22	15.175	31/07/2010 22:23	15.438	31/07/2010 22:23	15.175	31/07/2010 22:03	15.676
31/07/2010 22:48	14.146	31/07/2010 22:50	14.17	31/07/2010 22:51	14.984	31/07/2010 22:52	14.96	31/07/2010 22:53	15.294	31/07/2010 22:53	15.055	31/07/2010 22:33	15.533
31/07/2010 23:18	13.834	31/07/2010 23:20	13.858	31/07/2010 23:21	14.792	31/07/2010 23:22	14.721	31/07/2010 23:23	15.127	31/07/2010 23:23	14.816	31/07/2010 23:03	15.366
31/07/2010 23:48	13.57	31/07/2010 23:50	13.473	31/07/2010 23:51	14.601	31/07/2010 23:52	14.529	31/07/2010 23:53	14.936	31/07/2010 23:53	14.601	31/07/2010 23:33	15.199
01/08/2010 0:18	13.25	01/08/2010 0:20	13.25	01/08/2010 0:21	14.205	01/08/2010 0:22	14.205	01/08/2010 0:23	14.697	01/08/2010 0:23	14.385	01/08/2010 0:03	14.96
01/08/2010 0:48	13.112	01/08/2010 0:50	13.112	01/08/2010 0:51	14.266	01/08/2010 0:52	14.194	01/08/2010 0:53	14.697	01/08/2010 0:53	14.385	01/08/2010 0:33	14.912
01/08/2010 1:18	12.92	01/08/2010 1:20	12.968	01/08/2010 1:21	14.098	01/08/2010 1:22	14.05	01/08/2010 1:23	14.577	01/08/2010 1:23	14.242	01/08/2010 1:03	14.816
01/08/2010 1:48	12.727	01/08/2010 1:50	12.775	01/08/2010 1:51	13.954	01/08/2010 1:52	13.93	01/08/2010 1:53	14.467	01/08/2010 1:53	14.074	01/08/2010 1:33	14.697
01/08/2010 2:18	12.509	01/08/2010 2:20	12.509	01/08/2010 2:21	13.786	01/08/2010 2:22	13.786	01/08/2010 2:23	14.314	01/08/2010 2:23	13.882	01/08/2010 2:03	14.546
01/08/2010 2:48	12.318	01/08/2010 2:50	12.437										

02-Aug-10

	Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
	02/08/2010 0:18	12.195	02/08/2010 0:20	11.925	02/08/2010 0:21	13.305	02/08/2010 0:23	13.115	02/08/2010 0:23	13.015	02/08/2010 0:23	12.992	02/08/2010 0:03	13.83
	02/08/2010 0:48	11.686	02/08/2010 0:50	11.224	02/08/2010 0:51	12.896	02/08/2010 0:52	12.654	02/08/2010 0:53	12.509	02/08/2010 0:53	12.582	02/08/2010 0:33	13.618
	02/08/2010 1:18	11.151	02/08/2010 1:20	10.565	02/08/2010 1:21	12.437	02/08/2010 1:22	12.122	02/08/2010 1:23	12.074	02/08/2010 1:23	12.147	02/08/2010 1:03	13.305
	02/08/2010 1:48	10.636	02/08/2010 1:50	10.051	02/08/2010 1:51	12.001	02/08/2010 1:52	11.662	02/08/2010 1:53	11.686	02/08/2010 1:53	11.768	02/08/2010 1:33	12.882
	02/08/2010 2:18	10.247	02/08/2010 2:20	9.682	02/08/2010 2:21	11.662	02/08/2010 2:22	11.248	02/08/2010 2:23	11.321	02/08/2010 2:23	11.516	02/08/2010 2:03	12.703
	02/08/2010 2:48	9.829	02/08/2010 2:50	9.238	02/08/2010 2:51	11.346	02/08/2010 2:52	10.883	02/08/2010 2:53	11.029	02/08/2010 2:53	11.12	02/08/2010 2:33	12.386
	02/08/2010 3:18	9.435	02/08/2010 3:20	8.916	02/08/2010 3:21	11.029	02/08/2010 3:22	10.636	02/08/2010 3:23	10.81	02/08/2010 3:23	10.932	02/08/2010 3:03	12.171
	02/08/2010 3:48	9.095	02/08/2010 3:50	8.742	02/08/2010 3:51	10.736	02/08/2010 3:52	10.394	02/08/2010 3:53	10.636	02/08/2010 3:53	10.854	02/08/2010 3:33	11.978
	02/08/2010 4:18	8.767	02/08/2010 4:20	8.394	02/08/2010 4:21	10.443	02/08/2010 4:22	10.124	02/08/2010 4:23	10.541	02/08/2010 4:23	10.614	02/08/2010 4:03	11.807
	02/08/2010 4:48	8.419	02/08/2010 4:50	8.095	02/08/2010 4:51	10.149	02/08/2010 4:52	9.879	02/08/2010 4:53	10.222	02/08/2010 4:53	10.32	02/08/2010 4:33	11.662
	02/08/2010 5:18	8.117	02/08/2010 5:20	7.82	02/08/2010 5:21	9.903	02/08/2010 5:22	9.662	02/08/2010 5:23	9.805	02/08/2010 5:23	10.051	02/08/2010 5:03	11.467
	02/08/2010 5:48	7.81	02/08/2010 5:50	7.652	02/08/2010 5:51	9.766	02/08/2010 5:52	9.534	02/08/2010 5:53	9.534	02/08/2010 5:53	9.756	02/08/2010 5:33	11.248
	02/08/2010 6:18	7.82	02/08/2010 6:20	7.72	02/08/2010 6:21	9.583	02/08/2010 6:22	9.361	02/08/2010 6:23	9.361	02/08/2010 6:23	9.509	02/08/2010 6:03	11.053
	02/08/2010 6:48	7.67	02/08/2010 6:50	7.594	02/08/2010 6:51	9.386	02/08/2010 6:52	9.188	02/08/2010 6:53	9.114	02/08/2010 6:53	9.262	02/08/2010 6:33	10.858
	02/08/2010 7:18	7.569	02/08/2010 7:20	7.494	02/08/2010 7:21	9.213	02/08/2010 7:22	9.064	02/08/2010 7:23	8.941	02/08/2010 7:23	9.064	02/08/2010 7:03	10.736
	02/08/2010 7:48	7.494	02/08/2010 7:50	7.469	02/08/2010 7:51	9.089	02/08/2010 7:52	8.995	02/08/2010 7:53	8.941	02/08/2010 7:53	8.994	02/08/2010 7:33	10.636
	02/08/2010 8:18	7.444	02/08/2010 8:20	7.494	02/08/2010 8:21	9.015	02/08/2010 8:22	8.891	02/08/2010 8:23	8.767	02/08/2010 8:23	8.817	02/08/2010 8:03	10.614
	02/08/2010 8:48	7.444	02/08/2010 8:50	7.544	02/08/2010 8:51	8.965	02/08/2010 8:52	8.916	02/08/2010 8:53	8.668	02/08/2010 8:53	8.767	02/08/2010 8:33	10.663
	02/08/2010 9:18	7.444	02/08/2010 9:20	7.619	02/08/2010 9:21	8.916	02/08/2010 9:22	8.891	02/08/2010 9:23	8.618	02/08/2010 9:23	8.668	02/08/2010 9:03	10.59
	02/08/2010 9:48	7.494	02/08/2010 9:50	7.695	02/08/2010 9:51	8.916	02/08/2010 9:52	8.916	02/08/2010 9:53	8.643	02/08/2010 9:53	8.717	02/08/2010 9:33	10.636
	02/08/2010 10:18	7.82	02/08/2010 10:20	8.145	02/08/2010 10:21	8.99	02/08/2010 10:22	9.04	02/08/2010 10:23	8.916	02/08/2010 10:23	8.99	02/08/2010 10:03	10.736
	02/08/2010 10:48	8.095	02/08/2010 10:50	8.543	02/08/2010 10:51	9.064	02/08/2010 10:52	9.163	02/08/2010 10:53	9.435	02/08/2010 10:53	9.361	02/08/2010 10:33	10.907
	02/08/2010 11:18	8.319	02/08/2010 11:20	8.618	02/08/2010 11:21	9.139	02/08/2010 11:22	9.287	02/08/2010 11:23	9.662	02/08/2010 11:23	9.361	02/08/2010 11:03	11.053
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	02/08/2010 15:48	11.151	02/08/2010 15:50	11.782	02/08/2010 15:51	10.761	02/08/2010 15:52	11.078	02/08/2010 15:53	11.977	02/08/2010 15:53	10.81	02/08/2010 15:33	12.485
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	02/08/2010 17:48	11.492	02/08/2010 17:50	11.977	02/08/2010 17:51	11.029	02/08/2010 17:52	11.516	02/08/2010 17:53	12.286	02/08/2010 17:53	11.321	02/08/2010 17:33	13.137
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	03/08/2010 1:18	8.02	03/08/2010 1:20	7.945	03/08/2010 1:21	9.015	03/08/2010 1:22	8.568	03/08/2010 1:23	8.213	03/08/2010 1:23	8.213	03/08/2010 1:03	10.492
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	03/08/2010 2:48	7.519												

04-Aug-10

Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
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04/08/2010 0:48	7.293	04/08/2010 0:50	6.965	04/08/2010 0:51	8.117	04/08/2010 0:52	7.882	04/08/2010 0:53	8.195	04/08/2010 0:53	8.369	04/08/2010 0:33	9.583
04/08/2010 1:18	7.041	04/08/2010 1:20	6.687	04/08/2010 1:21	7.945	04/08/2010 1:22	7.619	04/08/2010 1:23	8.032	04/08/2010 1:23	8.117	04/08/2010 1:03	9.421
04/08/2010 1:48	6.763	04/08/2010 1:50	6.435	04/08/2010 1:51	7.745	04/08/2010 1:52	7.419	04/08/2010 1:53	7.782	04/08/2010 1:53	7.956	04/08/2010 1:33	9.282
04/08/2010 2:18	6.535	04/08/2010 2:20	6.179	04/08/2010 2:21	7.519	04/08/2010 2:22	7.217	04/08/2010 2:23	7.677	04/08/2010 2:23	7.92	04/08/2010 2:03	9.114
04/08/2010 2:48	6.255	04/08/2010 2:50	5.949	04/08/2010 2:51	7.343	04/08/2010 2:52	7.015	04/08/2010 2:53	7.484	04/08/2010 2:53	7.845	04/08/2010 2:33	8.965
04/08/2010 3:18	6	04/08/2010 3:20	5.693	04/08/2010 3:21	7.142	04/08/2010 3:22	6.813	04/08/2010 3:23	7.319	04/08/2010 3:23	7.677	04/08/2010 3:03	8.817
04/08/2010 3:48	5.745	04/08/2010 3:50	5.514	04/08/2010 3:51	6.94	04/08/2010 3:52	6.636	04/08/2010 3:53	7.192	04/08/2010 3:53	7.569	04/08/2010 3:33	8.712
04/08/2010 4:18	5.539	04/08/2010 4:20	5.257	04/08/2010 4:21	6.763	04/08/2010 4:22	6.458	04/08/2010 4:23	7.116	04/08/2010 4:23	7.544	04/08/2010 4:03	8.618
04/08/2010 4:48	5.36	04/08/2010 4:50	5.128	04/08/2010 4:51	6.611	04/08/2010 4:52	6.306	04/08/2010 4:53	7.041	04/08/2010 4:53	7.469	04/08/2010 4:33	8.543
04/08/2010 5:18	5.231	04/08/2010 5:20	5.076	04/08/2010 5:21	6.484	04/08/2010 5:22	6.179	04/08/2010 5:23	6.965	04/08/2010 5:23	7.419	04/08/2010 5:03	8.469
04/08/2010 5:48	5.154	04/08/2010 5:50	5.102	04/08/2010 5:51	6.406	04/08/2010 5:52	6.129	04/08/2010 5:53	6.899	04/08/2010 5:53	7.393	04/08/2010 5:33	8.418
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04/08/2010 6:48	5.154	04/08/2010 6:50	5.308	04/08/2010 6:51	6.306	04/08/2010 6:52	6.179	04/08/2010 6:53	6.813	04/08/2010 6:53	7.393	04/08/2010 6:33	8.419
04/08/2010 7:18	5.231	04/08/2010 7:20	5.539	04/08/2010 7:21	6.306	04/08/2010 7:22	6.23	04/08/2010 7:23	6.914	04/08/2010 7:23	7.419	04/08/2010 7:03	8.444
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04/08/2010 11:18	8.519	04/08/2010 11:20	9.828	04/08/2010 11:21	8.077	04/08/2010 11:22	8.767	04/08/2010 11:23	9.46	04/08/2010 11:23	9.004	04/08/2010 11:03	10.467
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04/08/2010 13:48	11.419	04/08/2010 13:50	13.161	04/08/2010 13:51	10.11	04/08/2010 13:52	11.248	04/08/2010 13:53	11.349	04/08/2010 13:53	10.887	04/08/2010 13:33	12.05
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04/08/2010 17:48	13.281	04/08/2010 17:50	14.05	04/08/2010 17:51	12.289	04/08/2010 17:52	13.054	04/08/2010 17:53	12.025	04/08/2010 17:53	10.959	04/08/2010 17:33	12.678
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05/08/2010 1:48	10.051	05/08/2010 1:50	10.1	05/08/2010 1:51	10.32	05/08/2010 1:52	10.296	05/08/2010 1:53	10.443	05/08/2010 1:53	10.247	05/08/2010 1:33	10.883
05/08/2010 2:18	9.828	05/08/2010 2:20	10.011	05/08/2010 2:21	10.11	05/08/2010 2:22	10.222	05/08/2010 2:23	10.394	05/08/2010 2:23	10.175	05/08/2010 2:03	10.766
05/08/2010 2:48	9.805	05/08/2010 2:50	9.879	05/08/2010 2:51	10.124	05/08/2010 2:52	10.149	05/08/2010 2:53	10.345	05/08/2010 2:53	10.247	05/08/2010 2:33	10.81
05/08/2010 3:18	9.706	05/08/2010 3:20											

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
06/08/2010 0:18	11.580	06/08/2010 0:20	11.151	06/08/2010 0:21	12.05	06/08/2010 0:23	11.662	06/08/2010 0:23	12.485	06/08/2010 0:23	12.413	06/08/2010 0:03	12.074
06/08/2010 0:48	11.127	06/08/2010 0:50	10.712	06/08/2010 0:51	11.71	06/08/2010 0:52	11.287	06/08/2010 0:53	12.219	06/08/2010 0:53	12.074	06/08/2010 0:33	11.832
06/08/2010 1:18	10.712	06/08/2010 1:20	10.296	06/08/2010 1:21	10.296	06/08/2010 1:22	10.832	06/08/2010 1:23	11.977	06/08/2010 1:23	11.807	06/08/2010 1:03	11.613
06/08/2010 1:48	10.32	06/08/2010 1:50	9.829	06/08/2010 1:51	11.078	06/08/2010 1:52	10.614	06/08/2010 1:53	11.734	06/08/2010 1:53	11.588	06/08/2010 1:33	11.434
06/08/2010 2:18	9.952	06/08/2010 2:20	9.583	06/08/2010 2:21	10.785	06/08/2010 2:22	10.32	06/08/2010 2:23	11.516	06/08/2010 2:23	11.394	06/08/2010 2:03	11.224
06/08/2010 2:48	9.608	06/08/2010 2:50	9.238	06/08/2010 2:51	10.467	06/08/2010 2:52	10.026	06/08/2010 2:53	11.346	06/08/2010 2:53	11.151	06/08/2010 2:33	11.029
06/08/2010 3:18	9.287	06/08/2010 3:20	8.919	06/08/2010 3:21	10.173	06/08/2010 3:22	9.78	06/08/2010 3:23	11.127	06/08/2010 3:23	10.907	06/08/2010 3:03	10.858
06/08/2010 3:48	8.995	06/08/2010 3:50	8.618	06/08/2010 3:51	9.903	06/08/2010 3:52	9.524	06/08/2010 3:53	10.956	06/08/2010 3:53	10.712	06/08/2010 3:33	10.684
06/08/2010 4:18	8.643	06/08/2010 4:20	8.319	06/08/2010 4:21	9.657	06/08/2010 4:22	9.312	06/08/2010 4:23	10.795	06/08/2010 4:23	10.516	06/08/2010 4:03	10.541
06/08/2010 4:48	8.344	06/08/2010 4:50	8.045	06/08/2010 4:51	9.41	06/08/2010 4:52	9.114	06/08/2010 4:53	10.614	06/08/2010 4:53	10.345	06/08/2010 4:33	10.394
06/08/2010 5:18	8.095	06/08/2010 5:20	7.82	06/08/2010 5:21	9.188	06/08/2010 5:22	8.941	06/08/2010 5:23	10.482	06/08/2010 5:23	10.149	06/08/2010 5:03	10.296
06/08/2010 5:48	7.82	06/08/2010 5:50	7.67	06/08/2010 5:51	9.015	06/08/2010 5:52	8.817	06/08/2010 5:53	10.394	06/08/2010 5:53	10.001	06/08/2010 5:33	10.188
06/08/2010 6:18	7.82	06/08/2010 6:20	7.619	06/08/2010 6:21	8.916	06/08/2010 6:22	8.767	06/08/2010 6:23	10.345	06/08/2010 6:23	9.854	06/08/2010 6:03	10.149
06/08/2010 6:48	7.795	06/08/2010 6:50	7.67	06/08/2010 6:51	8.841	06/08/2010 6:52	8.767	06/08/2010 6:53	10.467	06/08/2010 6:53	9.805	06/08/2010 6:33	10.124
06/08/2010 7:18	7.87	06/08/2010 7:20	7.87	06/08/2010 7:21	8.841	06/08/2010 7:22	8.817	06/08/2010 7:23	10.736	06/08/2010 7:23	10.026	06/08/2010 7:03	10.247
06/08/2010 7:48	7.82	06/08/2010 7:50	7.82	06/08/2010 7:51	8.916	06/08/2010 7:52	8.995	06/08/2010 7:53	10.956	06/08/2010 7:53	10.149	06/08/2010 7:33	10.345
06/08/2010 8:18	8.319	06/08/2010 8:20	8.643	06/08/2010 8:21	9.054	06/08/2010 8:22	9.163	06/08/2010 8:23	11.127	06/08/2010 8:23	10.394	06/08/2010 8:03	10.565
06/08/2010 8:48	8.668	06/08/2010 8:50	9.163	06/08/2010 8:51	9.287	06/08/2010 8:52	9.46	06/08/2010 8:53	11.492	06/08/2010 8:53	10.663	06/08/2010 8:33	10.785
06/08/2010 9:18	9.139	06/08/2010 9:20	9.805	06/08/2010 9:21	9.558	06/08/2010 9:22	9.805	06/08/2010 9:23	11.832	06/08/2010 9:23	11.102	06/08/2010 9:03	11.346
06/08/2010 9:48	9.682	06/08/2010 9:50	10.467	06/08/2010 9:51	9.879	06/08/2010 9:52	10.286	06/08/2010 9:53	12.219	06/08/2010 9:53	11.566	06/08/2010 9:33	11.807
06/08/2010 10:18	10.32	06/08/2010 10:20	11.346	06/08/2010 10:21	10.271	06/08/2010 10:22	10.81	06/08/2010 10:23	12.799	06/08/2010 10:23	12.001	06/08/2010 10:03	12.195
06/08/2010 10:48	11.078	06/08/2010 10:50	12.243	06/08/2010 10:51	10.712	06/08/2010 10:52	11.37	06/08/2010 10:53	13.522	06/08/2010 10:53	12.534	06/08/2010 10:33	12.654
06/08/2010 11:18	11.904	06/08/2010 11:20	13.209	06/08/2010 11:21	11.224	06/08/2010 11:22	12.025	06/08/2010 11:23	14.218	06/08/2010 11:23	13.185	06/08/2010 11:03	13.112
06/08/2010 11:48	12.727	06/08/2010 11:50	14.146	06/08/2010 11:51	11.734	06/08/2010 11:52	12.703	06/08/2010 11:53	14.912	06/08/2010 11:53	13.749	06/08/2010 11:33	13.668
06/08/2010 12:18	13.546	06/08/2010 12:20	14.936	06/08/2010 12:21	12.258	06/08/2010 12:22	13.401	06/08/2010 12:23	15.557	06/08/2010 12:23	14.433	06/08/2010 12:03	14.146
06/08/2010 12:48	14.218	06/08/2010 12:50	15.772	06/08/2010 12:51	12.799	06/08/2010 12:52	14.098	06/08/2010 12:53	16.201	06/08/2010 12:53	14.984	06/08/2010 12:33	14.625
06/08/2010 13:18	15.103	06/08/2010 13:20	16.582	06/08/2010 13:21	13.377	06/08/2010 13:22	14.782	06/08/2010 13:23	16.82	06/08/2010 13:23	15.533	06/08/2010 13:03	15.103
06/08/2010 13:48	15.915	06/08/2010 13:50	17.439	06/08/2010 13:51	13.954	06/08/2010 13:52	15.495	06/08/2010 13:53	17.391	06/08/2010 13:53	16.082	06/08/2010 13:33	15.652
06/08/2010 14:18	16.701	06/08/2010 14:20	18.175	06/08/2010 14:21	14.503	06/08/2010 14:22	16.104	06/08/2010 14:23	17.894	06/08/2010 14:23	16.534	06/08/2010 14:03	16.177
06/08/2010 14:48	17.32	06/08/2010 14:50	18.723	06/08/2010 14:51	15.079	06/08/2010 14:52	16.677	06/08/2010 14:53	18.319	06/08/2010 14:53	17.082	06/08/2010 14:33	16.558
06/08/2010 15:18	17.891	06/08/2010 15:20	19.151	06/08/2010 15:21	15.533	06/08/2010 15:22	17.13	06/08/2010 15:23	18.699	06/08/2010 15:23	17.51	06/08/2010 15:03	16.939
06/08/2010 15:48	18.39	06/08/2010 15:50	19.508	06/08/2010 15:51	16.071	06/08/2010 15:52	17.598	06/08/2010 15:53	19.865	06/08/2010 15:53	17.819	06/08/2010 15:33	17.248
06/08/2010 16:18	18.699	06/08/2010 16:20	19.627	06/08/2010 16:21	16.388	06/08/2010 16:22	17.943	06/08/2010 16:23	19.90	06/08/2010 16:23	17.988	06/08/2010 16:03	17.381
06/08/2010 16:48	18.937	06/08/2010 16:50	19.532	06/08/2010 16:51	16.63	06/08/2010 16:52	18.01	06/08/2010 16:53	19.246	06/08/2010 16:53	18.2	06/08/2010 16:33	17.653
06/08/2010 17:18	19.08	06/08/2010 17:20	19.555	06/08/2010 17:21	16.888	06/08/2010 17:22	18.105	06/08/2010 17:23	19.27	06/08/2010 17:23	18.224	06/08/2010 17:03	17.605
06/08/2010 17:48	18.985	06/08/2010 17:50	19.222	06/08/2010 17:51	16.987	06/08/2010 17:52	18.081	06/08/2010 17:53	19.513	06/08/2010 17:53	18.033	06/08/2010 17:33	17.415
06/08/2010 18:18	18.699	06/08/2010 18:20	18.629	06/08/2010 18:21	16.963	06/08/2010 18:22	17.961	06/08/2010 18:23	18.485	06/08/2010 18:23	17.772	06/08/2010 18:03	17.158
06/08/2010 18:48	18.414	06/08/2010 18:50	18.2	06/08/2010 18:51	16.844	06/08/2010 18:52	17.605	06/08/2010 18:53	18.176	06/08/2010 18:53	17.524	06/08/2010 18:33	17.133
06/08/2010 19:18	18.105	06/08/2010 19:20	17.891	06/08/2010 19:21	16.725	06/08/2010 19:22	17.368	06/08/2010 19:23	18.057	06/08/2010 19:23	17.391	06/08/2010 19:03	16.677
06/08/2010 19:48	17.891	06/08/2010 19:50	17.582	06/08/2010 19:51	16.606	06/08/2010 19:52	17.153	06/08/2010 19:53	17.843	06/08/2010 19:53	17.201	06/08/2010 19:33	16.438
06/08/2010 20:18	17.582	06/08/2010 20:20	17.271	06/08/2010 20:21	16.388	06/08/2010 20:22	16.909	06/08/2010 20:23	17.588	06/08/2010 20:23	16.582	06/08/2010 20:03	16.153
06/08/2010 20:48	17.249	06/08/2010 20:50	16.796	06/08/2010 20:51	16.272	06/08/2010 20:52	16.654	06/08/2010 20:53	17.344	06/08/2010 20:53	16.582	06/08/2010 20:33	15.619
06/08/2010 21:18	16.844	06/08/2010 21:20	16.344	06/08/2010 21:21	16.034	06/08/2010 21:22	16.368	06/08/2010 21:23	17.082	06/08/2010 21:23	16.392	06/08/2010 21:03	15.629
06/08/2010 21:48	16.415	06/08/2010 21:50	15.843	06/08/2010 21:51	15.796	06/08/2010 21:52	16.082	06/08/2010 21:53	16.725	06/08/2010 21:53	16.177	06/08/2010 21:33	15.342
06/08/2010 22:18	15.985	06/08/2010 22:20	15.366	06/08/2010 22:21	15.533	06/08/2010 22:22	15.746	06/08/2010 22:23	16.398	06/08/2010 22:23	15.658	06/08/2010 22:03	15.058
06/08/2010 22:48	15.557	06/08/2010 22:50	14.936	06/08/2010 22:51	15.247	06/08/2010 22:52	15.414	06/08/2010 22:53	16.082	06/08/2010 22:53	15.39	06/08/2010 22:33	14.793
06/08/2010 23:18	15.151	06/08/2010 23:20	14.457	06/08/2010 23:21	14.984	06/08/2010 23:22	15.055	06/08/2010 23:23	15.772	06/08/2010 23:23	15.055	06/08/2010 23:03	14.529
06/08/2010 23:48	14.745	06/08/2010 23:50	14.074	06/08/2010 23:51	14.687	06/08/2010 23:52	14.745	06/08/2010 23:53	15.485	06/08/2010 23:53	14.745	06/08/2010 23:33	14.256
07/08/2010 0:18	14.745	07/08/2010 0:20	14.074	07/08/2010 0:21	14.687	07/08/2010 0:22	14.745	07/08/2010 0:23	15.485	07/08/2010 0:23	14.745	07/08/2010 0:03	14.256
07/08/2010 0:48	14.098	07/08/2010 0:50	13.497	07/08/2010 0:51	14.218	07/08/2010 0:52	14.194	07/08/2010 0:53	15.103	07/08/2010 0:53	14.314	07/08/2010 0:33	13.81
07/08/2010 1:18	13.81	07/08/2010 1:20	13.257	07/08/2010 1:21	14.002	07/08/2010 1:22	13.978	07/08/2010 1:23	14.912	07/08/2010 1:23	14.17	07/08/2010 1:03	13.642
07/08/2010 1:48	13.546	07/08/2010 1:50	13.016	07/08/2010 1:51	13.788	07/08/2010 1:52	13.762	07/08/2010 1:53	14.721	07/08/2010 1:53	13.978	07/08/2010 1:33	13.497
07/08/2010 2:18	13.257	07/08/2010 2:20	12.678	07/08/2010 2:21	13.584	07/08/2010 2:22	13.558	07/08/2010 2:23	14.513	07/08/2010 2:23	13.796	07/08/2010 2:03	13.257
07/08/2010 2:48	13.088	07/08/2010 2:50	12.678	07/08/2010 2:51	13.401	07/08/2010 2:52							

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9722569)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
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08/08/2010 0:48	13.93	08/08/2010 0:50	13.401	08/08/2010 0:51	14.481	08/08/2010 0:52	14.457	08/08/2010 0:53	14.433	08/08/2010 0:53	14.218	08/08/2010 0:33	13.81
08/08/2010 1:18	13.642	08/08/2010 1:20	13.112	08/08/2010 1:21	14.266	08/08/2010 1:22	14.218	08/08/2010 1:23	14.242	08/08/2010 1:23	13.93	08/08/2010 1:03	13.618
08/08/2010 1:48	13.377	08/08/2010 1:50	12.886	08/08/2010 1:51	14.05	08/08/2010 1:52	14.026	08/08/2010 1:53	14.05	08/08/2010 1:53	13.788	08/08/2010 1:33	13.476
08/08/2010 2:18	13.112	08/08/2010 2:20	12.654	08/08/2010 2:21	13.858	08/08/2010 2:22	13.81	08/08/2010 2:23	13.906	08/08/2010 2:23	13.618	08/08/2010 2:03	13.281
08/08/2010 2:48	12.823	08/08/2010 2:50	12.413	08/08/2010 2:51	13.666	08/08/2010 2:52	13.618	08/08/2010 2:53	13.738	08/08/2010 2:53	13.473	08/08/2010 2:33	13.112
08/08/2010 3:18	12.582	08/08/2010 3:20	12.171	08/08/2010 3:21	13.449	08/08/2010 3:22	13.401	08/08/2010 3:23	13.594	08/08/2010 3:23	13.281	08/08/2010 3:03	12.968
08/08/2010 3:48	12.34	08/08/2010 3:50	11.925	08/08/2010 3:51	13.233	08/08/2010 3:52	13.233	08/08/2010 3:53	13.445	08/08/2010 3:53	13.088	08/08/2010 3:33	12.736
08/08/2010 4:18	12.098	08/08/2010 4:20	11.71	08/08/2010 4:21	13.064	08/08/2010 4:22	13.04	08/08/2010 4:23	13.329	08/08/2010 4:23	12.992	08/08/2010 4:03	12.654
08/08/2010 4:48	11.856	08/08/2010 4:50	11.482	08/08/2010 4:51	12.896	08/08/2010 4:52	12.871	08/08/2010 4:53	13.233	08/08/2010 4:53	12.944	08/08/2010 4:33	12.558
08/08/2010 5:18	11.686	08/08/2010 5:20	11.321	08/08/2010 5:21	12.727	08/08/2010 5:22	12.727	08/08/2010 5:23	13.185	08/08/2010 5:23	12.799	08/08/2010 5:03	12.485
08/08/2010 5:48	11.545	08/08/2010 5:50	11.246	08/08/2010 5:51	12.63	08/08/2010 5:52	12.666	08/08/2010 5:53	13.137	08/08/2010 5:53	12.759	08/08/2010 5:33	12.417
08/08/2010 6:18	11.443	08/08/2010 6:20	11.2	08/08/2010 6:21	12.509	08/08/2010 6:22	12.534	08/08/2010 6:23	13.112	08/08/2010 6:23	12.847	08/08/2010 6:03	12.389
08/08/2010 6:48	11.394	08/08/2010 6:50	11.2	08/08/2010 6:51	12.437	08/08/2010 6:52	12.485	08/08/2010 6:53	13.088	08/08/2010 6:53	12.847	08/08/2010 6:33	12.364
08/08/2010 7:18	11.443	08/08/2010 7:20	11.321	08/08/2010 7:21	12.389	08/08/2010 7:22	12.485	08/08/2010 7:23	13.137	08/08/2010 7:23	12.871	08/08/2010 7:03	12.389
08/08/2010 7:48	11.565	08/08/2010 7:50	11.443	08/08/2010 7:51	12.415	08/08/2010 7:52	12.594	08/08/2010 7:53	13.233	08/08/2010 7:53	12.944	08/08/2010 7:33	12.461
08/08/2010 8:18	11.71	08/08/2010 8:20	11.807	08/08/2010 8:21	12.461	08/08/2010 8:22	12.678	08/08/2010 8:23	13.401	08/08/2010 8:23	13.088	08/08/2010 8:03	12.558
08/08/2010 8:48	11.929	08/08/2010 8:50	12.098	08/08/2010 8:51	12.534	08/08/2010 8:52	12.823	08/08/2010 8:53	13.738	08/08/2010 8:53	13.209	08/08/2010 8:33	12.775
08/08/2010 9:18	12.196	08/08/2010 9:20	12.509	08/08/2010 9:21	12.678	08/08/2010 9:22	13.064	08/08/2010 9:23	14.184	08/08/2010 9:23	13.57	08/08/2010 9:03	13.088
08/08/2010 9:48	12.582	08/08/2010 9:50	13.016	08/08/2010 9:51	12.896	08/08/2010 9:52	13.329	08/08/2010 9:53	14.671	08/08/2010 9:53	13.978	08/08/2010 9:33	13.476
08/08/2010 10:18	13.064	08/08/2010 10:20	13.522	08/08/2010 10:21	13.161	08/08/2010 10:22	13.666	08/08/2010 10:23	15.176	08/08/2010 10:23	14.457	08/08/2010 10:03	13.788
08/08/2010 10:48	13.594	08/08/2010 10:50	14.242	08/08/2010 10:51	13.473	08/08/2010 10:52	14.074	08/08/2010 10:53	15.652	08/08/2010 10:53	14.912	08/08/2010 10:33	14.194
08/08/2010 11:18	14.17	08/08/2010 11:20	14.912	08/08/2010 11:21	13.834	08/08/2010 11:22	14.529	08/08/2010 11:23	16.201	08/08/2010 11:23	15.438	08/08/2010 11:03	14.601
08/08/2010 11:48	14.792	08/08/2010 11:50	15.678	08/08/2010 11:51	14.218	08/08/2010 11:52	15.031	08/08/2010 11:53	16.606	08/08/2010 11:53	16.01	08/08/2010 11:33	14.697
08/08/2010 12:18	15.414	08/08/2010 12:20	16.32	08/08/2010 12:21	14.601	08/08/2010 12:22	15.557	08/08/2010 12:23	17.226	08/08/2010 12:23	16.638	08/08/2010 12:03	15.318
08/08/2010 12:48	16.058	08/08/2010 12:50	17.058	08/08/2010 12:51	14.96	08/08/2010 12:52	16.106	08/08/2010 12:53	17.867	08/08/2010 12:53	17.177	08/08/2010 12:33	15.7
08/08/2010 13:18	16.749	08/08/2010 13:20	17.843	08/08/2010 13:21	15.438	08/08/2010 13:22	16.677	08/08/2010 13:23	18.461	08/08/2010 13:23	17.677	08/08/2010 13:03	16.129
08/08/2010 13:48	17.415	08/08/2010 13:50	18.509	08/08/2010 13:51	15.915	08/08/2010 13:52	17.272	08/08/2010 13:53	19.009	08/08/2010 13:53	18.081	08/08/2010 13:33	16.558
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12/08/2010 3:18	12.775	12/08/2010 3:20	12.678	12/08/2010 3:21	13.642	12/08/2010 3:22	13.69	12/08/2010 3:23	14.577	12/08/2010 3:23	13.81	12/08/2010 3:03	13.497
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12/08/2010 23:48	10.785	12/08/2010 23:50	10.541	12/08/2010 23:51	11.516	12/08/2010 23:52	11.492	12/08/2010 23:53	11.346	12/08/2010 23:53	11.445	12/08/2010 23:33	11.856
13/08/2010 0:18	10.516	13/08/2010 0:20	10.247	13/08/2010 0:21	10.951	13/08/2010 0:22	10.951	13/08/2010 0:23	10.932	13/08/2010 0:23	11.053	13/08/2010 0:03	11.492
13/08/2010 0:48	10.247	13/08/2010 0:50	10.051	13/08/2010 0:51	11.102	13/08/2010 0:52	11.029	13/08/2010 0:53	10.932	13/08/2010 0:53	11.053	13/08/2010 0:33	11.492
13/08/2010 1:18	9.977	13/08/2010 1:20	9.805	13/08/2010 1:21	10.883	13/08/2010 1:22	10.785	13/08/2010 1:23	10.687	13/08/2010 1:23	10.785	13/08/2010 1:03	11.297
13/08/2010 1:48	9.731	13/08/2010 1:50	9.598	13/08/2010 1:51	10.663	13/08/2010 1:52	10.541	13/08/2010 1:53	10.492	13/08/2010 1:53	10.59	13/08/2010 1:33	11.102
13/08/2010 2:18	9.598	13/08/2010 2:20	9.386	13/08/2010 2:21	10.497	13/08/2010 2:22	10.346	13/08/2010 2:23	10.394	13/08/2010 2:23	10.394	13/08/2010 2:03	10.932
13/08/2010 2:48	9.287	13/08/2010 2:50	9.139	13/08/2010 2:51	10.271	13/08/201							

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9722569)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
14/08/2010 0:18	11.151	14/08/2010 0:20	10.858	14/08/2010 0:21	11.662	14/08/2010 0:23	11.565	14/08/2010 0:23	12.05	14/08/2010 0:23	11.71	14/08/2010 0:03	12.147
14/08/2010 0:48	10.736	14/08/2010 0:50	10.443	14/08/2010 0:51	11.394	14/08/2010 0:52	11.2	14/08/2010 0:53	11.759	14/08/2010 0:53	11.443	14/08/2010 0:33	11.904
14/08/2010 1:18	10.345	14/08/2010 1:20	10.051	14/08/2010 1:21	11.102	14/08/2010 1:22	10.834	14/08/2010 1:23	11.492	14/08/2010 1:23	11.127	14/08/2010 1:03	11.662
14/08/2010 1:48	9.977	14/08/2010 1:50	9.697	14/08/2010 1:51	10.81	14/08/2010 1:52	10.492	14/08/2010 1:53	11.246	14/08/2010 1:53	10.81	14/08/2010 1:33	11.416
14/08/2010 2:18	9.534	14/08/2010 2:20	9.287	14/08/2010 2:21	10.516	14/08/2010 2:22	10.149	14/08/2010 2:23	11.005	14/08/2010 2:23	10.59	14/08/2010 2:03	11.224
14/08/2010 2:48	9.138	14/08/2010 2:50	8.941	14/08/2010 2:51	10.198	14/08/2010 2:52	9.805	14/08/2010 2:53	10.736	14/08/2010 2:53	10.369	14/08/2010 2:33	11.005
14/08/2010 3:18	8.757	14/08/2010 3:20	8.519	14/08/2010 3:21	9.903	14/08/2010 3:22	9.485	14/08/2010 3:23	10.419	14/08/2010 3:23	10.124	14/08/2010 3:03	10.785
14/08/2010 3:48	8.415	14/08/2010 3:50	8.225	14/08/2010 3:51	8.602	14/08/2010 3:52	8.163	14/08/2010 3:53	10.104	14/08/2010 3:53	9.893	14/08/2010 3:33	10.562
14/08/2010 4:18	8.095	14/08/2010 4:20	8.02	14/08/2010 4:21	9.361	14/08/2010 4:22	8.866	14/08/2010 4:23	9.854	14/08/2010 4:23	9.608	14/08/2010 4:03	10.345
14/08/2010 4:48	7.795	14/08/2010 4:50	7.745	14/08/2010 4:51	9.089	14/08/2010 4:52	8.593	14/08/2010 4:53	9.558	14/08/2010 4:53	9.336	14/08/2010 4:33	10.1
14/08/2010 5:18	7.469	14/08/2010 5:20	7.469	14/08/2010 5:21	8.841	14/08/2010 5:22	8.344	14/08/2010 5:23	9.335	14/08/2010 5:23	9.163	14/08/2010 5:03	9.879
14/08/2010 5:48	7.192	14/08/2010 5:50	7.257	14/08/2010 5:51	8.593	14/08/2010 5:52	8.095	14/08/2010 5:53	9.153	14/08/2010 5:53	9.04	14/08/2010 5:33	9.657
14/08/2010 6:18	6.965	14/08/2010 6:20	7.041	14/08/2010 6:21	8.394	14/08/2010 6:22	7.895	14/08/2010 6:23	9.064	14/08/2010 6:23	8.965	14/08/2010 6:03	9.46
14/08/2010 6:48	6.839	14/08/2010 6:50	6.94	14/08/2010 6:51	8.22	14/08/2010 6:52	7.77	14/08/2010 6:53	9.04	14/08/2010 6:53	8.941	14/08/2010 6:33	9.336
14/08/2010 7:18	6.813	14/08/2010 7:20	6.965	14/08/2010 7:21	8.12	14/08/2010 7:22	7.695	14/08/2010 7:23	9.114	14/08/2010 7:23	8.891	14/08/2010 7:03	9.238
14/08/2010 7:48	6.989	14/08/2010 7:50	7.09	14/08/2010 7:51	8.07	14/08/2010 7:52	7.71	14/08/2010 7:53	9.313	14/08/2010 7:53	9.04	14/08/2010 7:33	9.239
14/08/2010 8:18	7.066	14/08/2010 8:20	7.318	14/08/2010 8:21	8.095	14/08/2010 8:22	7.795	14/08/2010 8:23	9.608	14/08/2010 8:23	9.287	14/08/2010 8:03	9.361
14/08/2010 8:48	7.318	14/08/2010 8:50	7.645	14/08/2010 8:51	8.195	14/08/2010 8:52	7.945	14/08/2010 8:53	10.001	14/08/2010 8:53	9.583	14/08/2010 8:33	9.583
14/08/2010 9:18	7.67	14/08/2010 9:20	8.095	14/08/2010 9:21	8.344	14/08/2010 9:22	8.17	14/08/2010 9:23	10.443	14/08/2010 9:23	9.928	14/08/2010 9:03	10.051
14/08/2010 9:48	8.12	14/08/2010 9:50	8.643	14/08/2010 9:51	8.543	14/08/2010 9:52	8.499	14/08/2010 9:53	10.996	14/08/2010 9:53	10.394	14/08/2010 9:33	10.566
14/08/2010 10:18	8.693	14/08/2010 10:20	9.312	14/08/2010 10:21	8.866	14/08/2010 10:22	8.841	14/08/2010 10:23	11.492	14/08/2010 10:23	10.956	14/08/2010 10:03	10.98
14/08/2010 10:48	9.336	14/08/2010 10:50	10.1	14/08/2010 10:51	9.213	14/08/2010 10:52	9.312	14/08/2010 10:53	12.171	14/08/2010 10:53	11.54	14/08/2010 10:33	11.37
14/08/2010 11:18	10.075	14/08/2010 11:20	10.907	14/08/2010 11:21	9.608	14/08/2010 11:22	9.854	14/08/2010 11:23	12.509	14/08/2010 11:23	12.025	14/08/2010 11:03	11.248
14/08/2010 11:48	10.907	14/08/2010 11:50	11.832	14/08/2010 11:51	9.977	14/08/2010 11:52	10.418	14/08/2010 11:53	13.04	14/08/2010 11:53	12.59	14/08/2010 11:33	12.316
14/08/2010 12:18	11.637	14/08/2010 12:20	13.137	14/08/2010 12:21	10.394	14/08/2010 12:22	10.932	14/08/2010 12:23	13.257	14/08/2010 12:23	12.606	14/08/2010 12:03	12.195
14/08/2010 12:48	12.389	14/08/2010 12:50	14.457	14/08/2010 12:51	10.834	14/08/2010 12:52	11.54	14/08/2010 12:53	13.473	14/08/2010 12:53	12.896	14/08/2010 12:33	12.582
14/08/2010 13:18	12.992	14/08/2010 13:20	15.223	14/08/2010 13:21	11.811	14/08/2010 13:22	12.025	14/08/2010 13:23	13.377	14/08/2010 13:23	12.799	14/08/2010 13:03	13.305
14/08/2010 13:48	13.834	14/08/2010 13:50	16.034	14/08/2010 13:51	11.443	14/08/2010 13:52	12.264	14/08/2010 13:53	13.425	14/08/2010 13:53	13.089	14/08/2010 13:33	13.04
14/08/2010 14:18	14.218	14/08/2010 14:20	15.986	14/08/2010 14:21	11.793	14/08/2010 14:22	12.77	14/08/2010 14:23	13.81	14/08/2010 14:23	13.497	14/08/2010 14:03	13.546
14/08/2010 14:48	14.385	14/08/2010 14:50	15.819	14/08/2010 14:51	12.195	14/08/2010 14:52	13.185	14/08/2010 14:53	14.184	14/08/2010 14:53	13.891	14/08/2010 14:33	13.497
14/08/2010 15:18	14.337	14/08/2010 15:20	15.485	14/08/2010 15:21	12.608	14/08/2010 15:22	13.594	14/08/2010 15:23	14.912	14/08/2010 15:23	14.146	14/08/2010 15:03	13.859
14/08/2010 15:48	14.721	14/08/2010 15:50	15.247	14/08/2010 15:51	12.996	14/08/2010 15:52	13.81	14/08/2010 15:53	15.247	14/08/2010 15:53	14.458	14/08/2010 15:33	14.059
14/08/2010 16:18	14.906	14/08/2010 16:20	15.815	14/08/2010 16:21	12.896	14/08/2010 16:22	13.906	14/08/2010 16:23	15.175	14/08/2010 16:23	14.467	14/08/2010 16:03	13.908
14/08/2010 16:48	15.223	14/08/2010 16:50	16.249	14/08/2010 16:51	12.896	14/08/2010 16:52	14.002	14/08/2010 16:53	15.509	14/08/2010 16:53	14.385	14/08/2010 16:33	13.882
14/08/2010 17:18	15.27	14/08/2010 17:20	16.129	14/08/2010 17:21	12.896	14/08/2010 17:22	14.074	14/08/2010 17:23	15.7	14/08/2010 17:23	14.721	14/08/2010 17:03	14.409
14/08/2010 17:48	15.386	14/08/2010 17:50	16.082	14/08/2010 17:51	12.969	14/08/2010 17:52	14.146	14/08/2010 17:53	16.082	14/08/2010 17:53	15.055	14/08/2010 17:33	14.409
14/08/2010 18:18	15.075	14/08/2010 18:20	15.665	14/08/2010 18:21	13.064	14/08/2010 18:22	14.096	14/08/2010 18:23	16.177	14/08/2010 18:23	15.294	14/08/2010 18:03	14.362
14/08/2010 18:48	14.721	14/08/2010 18:50	15.031	14/08/2010 18:51	13.112	14/08/2010 18:52	13.93	14/08/2010 18:53	15.891	14/08/2010 18:53	15.175	14/08/2010 18:33	14.409
14/08/2010 19:18	14.337	14/08/2010 19:20	14.601	14/08/2010 19:21	13.04	14/08/2010 19:22	13.714	14/08/2010 19:23	15.461	14/08/2010 19:23	14.912	14/08/2010 19:03	14.337
14/08/2010 19:48	14.074	14/08/2010 19:50	14.17	14/08/2010 19:51	12.896	14/08/2010 19:52	13.473	14/08/2010 19:53	15.103	14/08/2010 19:53	14.697	14/08/2010 19:33	14.17
14/08/2010 20:18	13.762	14/08/2010 20:20	13.81	14/08/2010 20:21	12.77	14/08/2010 20:22	13.29	14/08/2010 20:23	14.84	14/08/2010 20:23	14.553	14/08/2010 20:03	13.894
14/08/2010 20:48	13.425	14/08/2010 20:50	13.401	14/08/2010 20:51	12.534	14/08/2010 20:52	12.92	14/08/2010 20:53	14.577	14/08/2010 20:53	14.314	14/08/2010 20:33	13.642
14/08/2010 21:18	13.04	14/08/2010 21:20	13.016	14/08/2010 21:21	12.364	14/08/2010 21:22	12.654	14/08/2010 21:23	14.218	14/08/2010 21:23	14.026	14/08/2010 21:03	13.353
14/08/2010 21:48	12.654	14/08/2010 21:50	12.63	14/08/2010 21:51	12.171	14/08/2010 21:52	12.389	14/08/2010 21:53	13.859	14/08/2010 21:53	13.762	14/08/2010 21:33	13.054
14/08/2010 22:18	12.268	14/08/2010 22:20	12.218	14/08/2010 22:21	12.001	14/08/2010 22:22	12.112	14/08/2010 22:23	13.594	14/08/2010 22:23	13.157	14/08/2010 22:03	12.769
14/08/2010 22:48	11.929	14/08/2010 22:50	11.904	14/08/2010 22:51	11.807	14/08/2010 22:52	11.904	14/08/2010 22:53	13.377	14/08/2010 22:53	13.425	14/08/2010 22:33	12.558
14/08/2010 23:18	11.637	14/08/2010 23:20	11.637	14/08/2010 23:21	11.637	14/08/2010 23:22	11.71	14/08/2010 23:23	13.209	14/08/2010 23:23	13.305	14/08/2010 23:03	12.34
14/08/2010 23:48	11.346	14/08/2010 23:50	11.37	14/08/2010 23:51	11.467	14/08/2010 23:52	11.516	14/08/2010 23:53	12.962	14/08/2010 23:53	13.088	14/08/2010 23:33	12.122
15/08/2010 0:18	11.074	15/08/2010 0:20	11.074	15/08/2010 0:21	11.074	15/08/2010 0:22	11.074	15/08/2010 0:23	12.606	15/08/2010 0:23	12.606	15/08/2010 0:03	11.785
15/08/2010 0:48	10.687	15/08/2010 0:50	10.785	15/08/2010 0:51	11.053	15/08/2010 0:52	11.078	15/08/2010 0:53	12.606	15/08/2010 0:53	12.63	15/08/2010 0:33	11.785
15/08/2010 1:18	10.32	15/08/2010 1:20	10.443	15/08/2010 1:21	10.81	15/08/2010 1:22	10.834	15/08/2010 1:23	12.413	15/08/2010 1:23	12.437	15/08/2010 1:03	11.613
15/08/2010 1:48	9.977	15/08/2010 1:50	10.124	15/08/2010 1:51	10.59	15/08/2010 1:52	10.614	15/08/2010 1:53	12.268	15/08/2010 1:53	12.268	15/08/2010 1:33	11.467
15/08/2010 2:18	9.795	15/08/2010 2:20	9.954	15/08/2010 2:21	10.443	15/08/2010 2:22	10.149	15/08/2010 2:23	12.147	15/08/2010 2:23	11.904	15/08/2010 2:03	11.248
15/08/2010 2:48	9.503	15/08/2010 2:50	9.583	15/08/2010 2:51	10.345	15/08/2010 2:52	10.296	15/08/2010 2:53	12.026	15/08/2010 2:53	12.026	15/08/2010 2:33	11.224

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9722569)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
16/08/2010 0:18	10.121	16/08/2010 0:20	9.882	16/08/2010 0:21	11.273	16/08/2010 0:22	11.137	16/08/2010 0:23	11.273	16/08/2010 0:23	11.078	16/08/2010 0:03	11.759
16/08/2010 0:48	9.657	16/08/2010 0:50	9.287	16/08/2010 0:51	10.996	16/08/2010 0:52	10.736	16/08/2010 0:53	10.932	16/08/2010 0:53	10.81	16/08/2010 0:33	11.492
16/08/2010 1:18	9.188	16/08/2010 1:20	8.891	16/08/2010 1:21	10.614	16/08/2010 1:22	10.345	16/08/2010 1:23	10.614	16/08/2010 1:23	10.589	16/08/2010 1:03	11.224
16/08/2010 1:48	8.742	16/08/2010 1:50	8.515	16/08/2010 1:51	10.286	16/08/2010 1:52	10.001	16/08/2010 1:53	10.345	16/08/2010 1:53	10.173	16/08/2010 1:33	10.956
16/08/2010 2:18	8.344	16/08/2010 2:20	8.117	16/08/2010 2:21	10.001	16/08/2010 2:22	9.657	16/08/2010 2:23	10.051	16/08/2010 2:23	9.879	16/08/2010 2:03	10.663
16/08/2010 2:48	7.97	16/08/2010 2:50	7.795	16/08/2010 2:51	9.706	16/08/2010 2:52	9.336	16/08/2010 2:53	9.78	16/08/2010 2:53	9.706	16/08/2010 2:33	10.394
16/08/2010 3:18	7.619	16/08/2010 3:20	7.494	16/08/2010 3:21	9.435	16/08/2010 3:22	9.015	16/08/2010 3:23	9.509	16/08/2010 3:23	9.485	16/08/2010 3:03	10.149
16/08/2010 3:48	7.318	16/08/2010 3:50	7.192	16/08/2010 3:51	9.388	16/08/2010 3:52	8.959	16/08/2010 3:53	9.238	16/08/2010 3:53	9.238	16/08/2010 3:33	9.938
16/08/2010 4:18	6.99	16/08/2010 4:20	6.864	16/08/2010 4:21	8.916	16/08/2010 4:22	8.394	16/08/2010 4:23	9.015	16/08/2010 4:23	8.99	16/08/2010 4:03	9.657
16/08/2010 4:48	6.661	16/08/2010 4:50	6.611	16/08/2010 4:51	8.693	16/08/2010 4:52	8.12	16/08/2010 4:53	8.767	16/08/2010 4:53	8.817	16/08/2010 4:33	9.41
16/08/2010 5:18	6.357	16/08/2010 5:20	6.331	16/08/2010 5:21	8.469	16/08/2010 5:22	7.845	16/08/2010 5:23	8.484	16/08/2010 5:23	8.645	16/08/2010 5:03	9.188
16/08/2010 5:48	6.102	16/08/2010 5:50	6.105	16/08/2010 5:51	8.022	16/08/2010 5:52	7.618	16/08/2010 5:53	8.319	16/08/2010 5:53	8.469	16/08/2010 5:33	9.056
16/08/2010 6:18	5.898	16/08/2010 6:20	5.949	16/08/2010 6:21	8.02	16/08/2010 6:22	7.419	16/08/2010 6:23	8.22	16/08/2010 6:23	8.369	16/08/2010 6:03	8.767
16/08/2010 6:48	5.77	16/08/2010 6:50	5.821	16/08/2010 6:51	7.82	16/08/2010 6:52	7.242	16/08/2010 6:53	8.22	16/08/2010 6:53	8.369	16/08/2010 6:33	8.593
16/08/2010 7:18	5.745	16/08/2010 7:20	5.647	16/08/2010 7:21	7.645	16/08/2010 7:22	7.142	16/08/2010 7:23	8.27	16/08/2010 7:23	8.394	16/08/2010 7:03	8.519
16/08/2010 7:48	5.796	16/08/2010 7:50	5.924	16/08/2010 7:51	7.544	16/08/2010 7:52	7.091	16/08/2010 7:53	8.469	16/08/2010 7:53	8.469	16/08/2010 7:33	8.494
16/08/2010 8:18	5.924	16/08/2010 8:20	6.128	16/08/2010 8:21	7.519	16/08/2010 8:22	7.091	16/08/2010 8:23	8.666	16/08/2010 8:23	8.593	16/08/2010 8:03	8.543
16/08/2010 8:48	6.153	16/08/2010 8:50	6.458	16/08/2010 8:51	7.569	16/08/2010 8:52	7.142	16/08/2010 8:53	8.941	16/08/2010 8:53	8.817	16/08/2010 8:33	8.717
16/08/2010 9:18	6.484	16/08/2010 9:20	6.889	16/08/2010 9:21	7.67	16/08/2010 9:22	7.283	16/08/2010 9:23	9.312	16/08/2010 9:23	9.163	16/08/2010 9:03	8.99
16/08/2010 9:48	6.914	16/08/2010 9:50	7.419	16/08/2010 9:51	7.845	16/08/2010 9:52	7.494	16/08/2010 9:53	9.939	16/08/2010 9:53	9.594	16/08/2010 9:33	9.632
16/08/2010 10:18	7.419	16/08/2010 10:20	8.02	16/08/2010 10:21	8.095	16/08/2010 10:22	7.77	16/08/2010 10:23	10.345	16/08/2010 10:23	10.001	16/08/2010 10:03	9.977
16/08/2010 10:48	7.995	16/08/2010 10:50	8.717	16/08/2010 10:51	8.369	16/08/2010 10:52	8.145	16/08/2010 10:53	10.858	16/08/2010 10:53	10.369	16/08/2010 10:33	10.345
16/08/2010 11:18	8.668	16/08/2010 11:20	9.46	16/08/2010 11:21	8.717	16/08/2010 11:22	8.993	16/08/2010 11:23	11.419	16/08/2010 11:23	10.785	16/08/2010 11:03	10.785
16/08/2010 11:48	9.386	16/08/2010 11:50	10.247	16/08/2010 11:51	9.099	16/08/2010 11:52	9.114	16/08/2010 11:53	12.001	16/08/2010 11:53	11.249	16/08/2010 11:33	11.273
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16/08/2010 12:48	10.858	16/08/2010 12:50	11.783	16/08/2010 12:51	9.829	16/08/2010 12:52	10.296	16/08/2010 12:53	13.161	16/08/2010 12:53	12.195	16/08/2010 12:33	12.098
16/08/2010 13:18	11.589	16/08/2010 13:20	12.534	16/08/2010 13:21	10.222	16/08/2010 13:22	10.907	16/08/2010 13:23	13.69	16/08/2010 13:23	12.727	16/08/2010 13:03	12.485
16/08/2010 13:48	12.292	16/08/2010 13:50	13.185	16/08/2010 13:51	10.698	16/08/2010 13:52	11.492	16/08/2010 13:53	14.322	16/08/2010 13:53	13.209	16/08/2010 13:33	12.969
16/08/2010 14:18	12.85	16/08/2010 14:20	13.81	16/08/2010 14:21	11.061	16/08/2010 14:22	12.05	16/08/2010 14:23	14.553	16/08/2010 14:23	13.594	16/08/2010 14:03	13.468
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16/08/2010 16:48	14.84	16/08/2010 16:50	15.199	16/08/2010 16:51	12.606	16/08/2010 16:52	13.93	16/08/2010 16:53	15.557	16/08/2010 16:53	14.816	16/08/2010 16:33	14.625
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16/08/2010 17:48	14.84	16/08/2010 17:50	14.936	16/08/2010 17:51	12.847	16/08/2010 17:52	14.002	16/08/2010 17:53	15.342	16/08/2010 17:53	14.84	16/08/2010 17:33	14.553
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16/08/2010 19:48	13.69	16/08/2010 19:50	13.257	16/08/2010 19:51	12.558	16/08/2010 19:52	13.064	16/08/2010 19:53	13.978	16/08/2010 19:53	13.858	16/08/2010 19:33	13.666
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16/08/2010 22:18	11.273	16/08/2010 22:20	10.663	16/08/2010 22:21	11.191	16/08/2010 22:22	11.287	16/08/2010 22:23	11.854	16/08/2010 22:23	11.88	16/08/2010 22:03	12.05
16/08/2010 22:48	10.761	16/08/2010 22:50	10.173	16/08/2010 22:51	10.858	16/08/2010 22:52	10.956	16/08/2010 22:53	11.443	16/08/2010 22:53	11.492	16/08/2010 22:33	11.759
16/08/2010 23:18	10.247	16/08/2010 23:20	9.706	16/08/2010 23:21	10.565	16/08/2010 23:22	10.59	16/08/2010 23:23	11.078	16/08/2010 23:23	11.175	16/08/2010 23:03	11.492
16/08/2010 23:48	9.756	16/08/2010 23:50	9.287	16/08/2010 23:51	10.271	16/08/2010 23:52	10.222	16/08/2010 23:53	10.712	16/08/2010 23:53	10.883	16/08/2010 23:33	11.224
17/08/2010 0:18	8.924	17/08/2010 0:20	8.864	17/08/2010 0:21	9.859	17/08/2010 0:22	9.859	17/08/2010 0:23	10.219	17/08/2010 0:23	10.219	17/08/2010 0:03	10.219
17/08/2010 0:48	8.817	17/08/2010 0:50	8.494	17/08/2010 0:51	9.756	17/08/2010 0:52	9.534	17/08/2010 0:53	10.026	17/08/2010 0:53	10.394	17/08/2010 0:33	10.687
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17/08/2010 1:48	7.945	17/08/2010 1:50	7.77	17/08/2010 1:51	9.262	17/08/2010 1:52	8.866	17/08/2010 1:53	9.46	17/08/2010 1:53	9.864	17/08/2010 1:33	10.173
17/08/2010 2:18	7.519	17/08/2010 2:20	7.419	17/08/2010 2:21	8.824	17/08/2010 2:22	8.259	17/08/2010 2:23	9.015	17/08/2010 2:23	9.598	17/08/2010 2:03	9.957
17/08/2010 2:48	7.142	17/08/2010 2:50	7.091	17/08/2010 2:51	8.767	17/08/2010 2:52	8.196	17/08/2010 2:53	8.916	17/08/2010 2:53	9.262	17/08/2010 2:33	9.657
17/08/2010 3:18	6.813	17/08/2010 3											

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9722569)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
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18/08/2010 0:48	8.792	18/08/2010 0:50	8.593	18/08/2010 0:51	9.558	18/08/2010 0:52	9.163	18/08/2010 0:53	10.492	18/08/2010 0:53	10.86	18/08/2010 0:33	10.687
18/08/2010 1:18	8.344	18/08/2010 1:20	8.22	18/08/2010 1:21	8.287	18/08/2010 1:22	8.792	18/08/2010 1:23	10.198	18/08/2010 1:23	10.587	18/08/2010 1:03	10.418
18/08/2010 1:48	7.97	18/08/2010 1:50	7.87	18/08/2010 1:51	8.015	18/08/2010 1:52	8.468	18/08/2010 1:53	9.801	18/08/2010 1:53	10.345	18/08/2010 1:33	10.148
18/08/2010 2:18	7.569	18/08/2010 2:20	7.544	18/08/2010 2:21	8.742	18/08/2010 2:22	8.17	18/08/2010 2:23	9.657	18/08/2010 2:23	9.977	18/08/2010 2:03	9.928
18/08/2010 2:48	7.192	18/08/2010 2:50	7.217	18/08/2010 2:51	8.469	18/08/2010 2:52	7.895	18/08/2010 2:53	9.435	18/08/2010 2:53	9.558	18/08/2010 2:33	9.706
18/08/2010 3:18	6.864	18/08/2010 3:20	6.889	18/08/2010 3:21	8.195	18/08/2010 3:22	7.619	18/08/2010 3:23	9.213	18/08/2010 3:23	9.114	18/08/2010 3:03	9.509
18/08/2010 3:48	6.506	18/08/2010 3:50	6.585	18/08/2010 3:51	7.92	18/08/2010 3:52	7.343	18/08/2010 3:53	8.941	18/08/2010 3:53	8.841	18/08/2010 3:33	9.141
18/08/2010 4:18	6.179	18/08/2010 4:20	6.281	18/08/2010 4:21	7.645	18/08/2010 4:22	7.091	18/08/2010 4:23	8.658	18/08/2010 4:23	8.593	18/08/2010 4:03	9.114
18/08/2010 4:48	5.847	18/08/2010 4:50	6	18/08/2010 4:51	7.393	18/08/2010 4:52	6.839	18/08/2010 4:53	8.444	18/08/2010 4:53	8.419	18/08/2010 4:33	8.965
18/08/2010 5:18	5.539	18/08/2010 5:20	5.719	18/08/2010 5:21	7.142	18/08/2010 5:22	6.611	18/08/2010 5:23	8.245	18/08/2010 5:23	8.195	18/08/2010 5:03	8.792
18/08/2010 5:48	5.257	18/08/2010 5:50	5.539	18/08/2010 5:51	6.94	18/08/2010 5:52	6.408	18/08/2010 5:53	8.01	18/08/2010 5:53	7.97	18/08/2010 5:33	8.618
18/08/2010 6:18	5.024	18/08/2010 6:20	5.334	18/08/2010 6:21	6.712	18/08/2010 6:22	6.204	18/08/2010 6:23	7.845	18/08/2010 6:23	7.795	18/08/2010 6:03	8.444
18/08/2010 6:48	4.895	18/08/2010 6:50	5.179	18/08/2010 6:51	6.56	18/08/2010 6:52	6.051	18/08/2010 6:53	7.777	18/08/2010 6:53	7.695	18/08/2010 6:33	8.319
18/08/2010 7:18	4.869	18/08/2010 7:20	5.179	18/08/2010 7:21	6.433	18/08/2010 7:22	5.975	18/08/2010 7:23	7.845	18/08/2010 7:23	7.67	18/08/2010 7:03	8.22
18/08/2010 7:48	4.921	18/08/2010 7:50	5.283	18/08/2010 7:51	6.382	18/08/2010 7:52	5.949	18/08/2010 7:53	8.03	18/08/2010 7:53	7.777	18/08/2010 7:33	8.156
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18/08/2010 8:48	5.334	18/08/2010 8:50	5.872	18/08/2010 8:51	6.382	18/08/2010 8:52	6.128	18/08/2010 8:53	8.742	18/08/2010 8:53	8.195	18/08/2010 8:33	8.444
18/08/2010 9:18	5.693	18/08/2010 9:20	6.331	18/08/2010 9:21	6.611	18/08/2010 9:22	6.306	18/08/2010 9:23	9.238	18/08/2010 9:23	8.543	18/08/2010 9:03	8.742
18/08/2010 9:48	6.153	18/08/2010 9:50	6.94	18/08/2010 9:51	6.914	18/08/2010 9:52	6.595	18/08/2010 9:53	9.718	18/08/2010 9:53	8.89	18/08/2010 9:33	9.41
18/08/2010 10:18	6.712	18/08/2010 10:20	7.619	18/08/2010 10:21	7.242	18/08/2010 10:22	6.914	18/08/2010 10:23	10.345	18/08/2010 10:23	9.509	18/08/2010 10:03	9.808
18/08/2010 10:48	7.343	18/08/2010 10:50	8.369	18/08/2010 10:51	7.645	18/08/2010 10:52	7.343	18/08/2010 10:53	10.956	18/08/2010 10:53	10.1	18/08/2010 10:33	10.247
18/08/2010 11:18	8.045	18/08/2010 11:20	9.163	18/08/2010 11:21	8.095	18/08/2010 11:22	7.817	18/08/2010 11:23	11.589	18/08/2010 11:23	10.683	18/08/2010 11:03	10.736
18/08/2010 11:48	8.817	18/08/2010 11:50	10.001	18/08/2010 11:51	8.519	18/08/2010 11:52	8.419	18/08/2010 11:53	12.243	18/08/2010 11:53	11.248	18/08/2010 11:33	11.278
18/08/2010 12:18	9.646	18/08/2010 12:20	10.907	18/08/2010 12:21	8.99	18/08/2010 12:22	9.064	18/08/2010 12:23	12.896	18/08/2010 12:23	11.868	18/08/2010 12:03	11.759
18/08/2010 12:48	10.394	18/08/2010 12:50	11.71	18/08/2010 12:51	9.46	18/08/2010 12:52	9.706	18/08/2010 12:53	13.546	18/08/2010 12:53	12.437	18/08/2010 12:33	12.171
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18/08/2010 14:18	12.585	18/08/2010 14:20	14.06	18/08/2010 14:21	10.907	18/08/2010 14:22	11.589	18/08/2010 14:23	16.107	18/08/2010 14:23	14.098	18/08/2010 14:03	13.497
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18/08/2010 15:48	14.194	18/08/2010 15:50	15.223	18/08/2010 15:51	12.147	18/08/2010 15:52	13.064	18/08/2010 15:53	16.956	18/08/2010 15:53	14.914	18/08/2010 15:33	14.361
18/08/2010 16:18	14.553	18/08/2010 16:20	15.414	18/08/2010 16:21	12.437	18/08/2010 16:22	13.401	18/08/2010 16:23	16.201	18/08/2010 16:23	15.078	18/08/2010 16:03	14.553
18/08/2010 16:48	14.768	18/08/2010 16:50	15.438	18/08/2010 16:51	12.63	18/08/2010 16:52	13.642	18/08/2010 16:53	16.249	18/08/2010 16:53	15.175	18/08/2010 16:33	14.673
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18/08/2010 17:48	14.864	18/08/2010 17:50	15.127	18/08/2010 17:51	12.847	18/08/2010 17:52	13.738	18/08/2010 17:53	16.106	18/08/2010 17:53	15.079	18/08/2010 17:33	14.529
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18/08/2010 21:48	11.929	18/08/2010 21:50	11.346	18/08/2010 21:51	11.419	18/08/2010 21:52	11.555	18/08/2010 21:53	12.892	18/08/2010 21:53	12.389	18/08/2010 21:33	12.558
18/08/2010 22:18	11.346	18/08/2010 22:20	10.785	18/08/2010 22:21	11.078	18/08/2010 22:22	11.161	18/08/2010 22:23	12.509	18/08/2010 22:23	12.12	18/08/2010 22:03	12.148
18/08/2010 22:48	10.785	18/08/2010 22:50	10.173	18/08/2010 22:51	10.712	18/08/2010 22:52	10.761	18/08/2010 22:53	12.05	18/08/2010 22:53	11.662	18/08/2010 22:33	11.929
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18/08/2010 23:48	9.805	18/08/2010 23:50	9.238	18/08/2010 23:51	10.026	18/08/2010 23:52	10.051	18/08/2010 23:53	11.273	18/08/2010 23:53	10.856	18/08/2010 23:33	11.297
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18/08/2010 0:48	8.891	18/08/2010 0:50	8.469	18/08/2010 0:51	9.435	18/08/2010 0:52	9.41	18/08/2010 0:53	10.565	18/08/2010 0:53	10.32	18/08/2010 0:33	10.761
18/08/2010 1:18	8.494	18/08/2010 1:20	8.095	18/08/2010 1:21	9.089	18/08/2010 1:22	9.089	18/08/2010 1:23	10.247	18/08/2010 1:23	10.001	18/08/2010 1:03	10.492
18/08/2010 1:48	8.12	18/08/2010 1:50	7.745	18/08/2010 1:51	8.916	18/08/2010 1:52	8.792	18/08/2010 1:53	9.928	18/08/2010 1:53	9.731	18/08/2010 1:33	10.247
18/08/2010 2:18	7.745	18/08/2010 2:20	7.419	18/08/2010 2:21	8.693	18/08/2010 2:22	8.693	18/08/2010 2:23	9.744	18/08/2010 2:23	9.448	18/08/2010 2:03	9.928
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18/08/2010 3:18	7.066	18/08/2010 3:20	6.813	18/08/2									

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
20/08/2010 0:18	7.393	20/08/2010 0:20	7.441	20/08/2010 0:21	7.895	20/08/2010 0:23	8.045	20/08/2010 0:23	8.469	20/08/2010 0:23	8.819	20/08/2010 0:03	9.064
20/08/2010 0:48	7.217	20/08/2010 0:50	7.242	20/08/2010 0:51	7.777	20/08/2010 0:52	7.899	20/08/2010 0:53	8.369	20/08/2010 0:53	8.195	20/08/2010 0:33	8.99
20/08/2010 1:18	7.941	20/08/2010 1:20	7.091	20/08/2010 1:21	7.645	20/08/2010 1:22	7.745	20/08/2010 1:23	8.245	20/08/2010 1:23	8.507	20/08/2010 1:03	8.891
20/08/2010 1:48	6.886	20/08/2010 1:50	6.965	20/08/2010 1:51	7.599	20/08/2010 1:52	7.894	20/08/2010 1:53	8.112	20/08/2010 1:53	7.87	20/08/2010 1:33	8.112
20/08/2010 2:18	6.763	20/08/2010 2:20	6.839	20/08/2010 2:21	7.444	20/08/2010 2:22	7.469	20/08/2010 2:23	7.995	20/08/2010 2:23	7.895	20/08/2010 2:03	8.693
20/08/2010 2:48	6.636	20/08/2010 2:50	6.737	20/08/2010 2:51	7.343	20/08/2010 2:52	7.343	20/08/2010 2:53	7.92	20/08/2010 2:53	7.795	20/08/2010 2:33	8.593
20/08/2010 3:18	6.535	20/08/2010 3:20	6.636	20/08/2010 3:21	7.242	20/08/2010 3:22	7.242	20/08/2010 3:23	7.845	20/08/2010 3:23	7.745	20/08/2010 3:03	8.519
20/08/2010 3:48	6.406	20/08/2010 3:50	6.56	20/08/2010 3:51	7.057	20/08/2010 3:52	7.057	20/08/2010 3:53	7.77	20/08/2010 3:53	7.72	20/08/2010 3:33	8.477
20/08/2010 4:18	6.331	20/08/2010 4:20	6.484	20/08/2010 4:21	7.066	20/08/2010 4:22	7.066	20/08/2010 4:23	7.72	20/08/2010 4:23	7.67	20/08/2010 4:03	8.369
20/08/2010 4:48	6.255	20/08/2010 4:50	6.408	20/08/2010 4:51	6.99	20/08/2010 4:52	6.99	20/08/2010 4:53	7.645	20/08/2010 4:53	7.594	20/08/2010 4:33	8.319
20/08/2010 5:18	6.179	20/08/2010 5:20	6.337	20/08/2010 5:21	6.914	20/08/2010 5:22	6.914	20/08/2010 5:23	7.569	20/08/2010 5:23	7.544	20/08/2010 5:03	8.245
20/08/2010 5:48	6.102	20/08/2010 5:50	6.261	20/08/2010 5:51	6.864	20/08/2010 5:52	6.864	20/08/2010 5:53	7.494	20/08/2010 5:53	7.494	20/08/2010 5:33	8.186
20/08/2010 6:18	6.051	20/08/2010 6:20	6.23	20/08/2010 6:21	6.798	20/08/2010 6:22	6.798	20/08/2010 6:23	7.469	20/08/2010 6:23	7.444	20/08/2010 6:03	8.145
20/08/2010 6:48	6.051	20/08/2010 6:50	6.23	20/08/2010 6:51	6.737	20/08/2010 6:52	6.763	20/08/2010 6:53	7.469	20/08/2010 6:53	7.419	20/08/2010 6:33	8.12
20/08/2010 7:18	6.051	20/08/2010 7:20	6.255	20/08/2010 7:21	6.712	20/08/2010 7:22	6.737	20/08/2010 7:23	7.469	20/08/2010 7:23	7.419	20/08/2010 7:03	8.12
20/08/2010 7:48	6.102	20/08/2010 7:50	6.331	20/08/2010 7:51	6.737	20/08/2010 7:52	6.763	20/08/2010 7:53	7.519	20/08/2010 7:53	7.569	20/08/2010 7:33	8.095
20/08/2010 8:18	6.179	20/08/2010 8:20	6.458	20/08/2010 8:21	6.763	20/08/2010 8:22	6.798	20/08/2010 8:23	7.569	20/08/2010 8:23	7.419	20/08/2010 8:03	8.12
20/08/2010 8:48	6.306	20/08/2010 8:50	6.535	20/08/2010 8:51	6.813	20/08/2010 8:52	6.839	20/08/2010 8:53	7.695	20/08/2010 8:53	7.519	20/08/2010 8:33	8.22
20/08/2010 9:18	6.458	20/08/2010 9:20	6.788	20/08/2010 9:21	6.914	20/08/2010 9:22	6.965	20/08/2010 9:23	7.845	20/08/2010 9:23	7.645	20/08/2010 9:03	8.319
20/08/2010 9:48	6.636	20/08/2010 9:50	7.066	20/08/2010 9:51	7.041	20/08/2010 9:52	7.094	20/08/2010 9:53	8.095	20/08/2010 9:53	7.43	20/08/2010 9:33	8.469
20/08/2010 10:18	6.788	20/08/2010 10:20	7.192	20/08/2010 10:21	7.167	20/08/2010 10:22	7.192	20/08/2010 10:23	8.344	20/08/2010 10:23	7.97	20/08/2010 10:03	8.543
20/08/2010 10:48	6.914	20/08/2010 10:50	7.343	20/08/2010 10:51	7.293	20/08/2010 10:52	7.318	20/08/2010 10:53	8.568	20/08/2010 10:53	8.195	20/08/2010 10:33	8.717
20/08/2010 11:18	7.142	20/08/2010 11:20	7.519	20/08/2010 11:21	7.444	20/08/2010 11:22	7.469	20/08/2010 11:23	8.792	20/08/2010 11:23	8.394	20/08/2010 11:03	8.941
20/08/2010 11:48	7.444	20/08/2010 11:50	7.845	20/08/2010 11:51	7.619	20/08/2010 11:52	7.67	20/08/2010 11:53	9.064	20/08/2010 11:53	8.599	20/08/2010 11:33	9.015
20/08/2010 12:18	7.82	20/08/2010 12:20	8.22	20/08/2010 12:21	7.795	20/08/2010 12:22	7.895	20/08/2010 12:23	9.435	20/08/2010 12:23	8.941	20/08/2010 12:03	9.336
20/08/2010 12:48	8.22	20/08/2010 12:50	8.668	20/08/2010 12:51	8.02	20/08/2010 12:52	8.145	20/08/2010 12:53	9.731	20/08/2010 12:53	9.213	20/08/2010 12:33	9.583
20/08/2010 13:18	8.568	20/08/2010 13:20	9.015	20/08/2010 13:21	8.27	20/08/2010 13:22	8.419	20/08/2010 13:23	9.952	20/08/2010 13:23	9.41	20/08/2010 13:03	9.756
20/08/2010 13:48	8.817	20/08/2010 13:50	9.312	20/08/2010 13:51	8.149	20/08/2010 13:52	8.717	20/08/2010 13:53	10.075	20/08/2010 13:53	9.509	20/08/2010 13:33	9.652
20/08/2010 14:18	9.015	20/08/2010 14:20	9.509	20/08/2010 14:21	8.717	20/08/2010 14:22	9.163	20/08/2010 14:23	10.11	20/08/2010 14:23	9.509	20/08/2010 14:03	9.713
20/08/2010 14:48	9.262	20/08/2010 14:50	9.608	20/08/2010 14:51	8.916	20/08/2010 14:52	9.163	20/08/2010 14:53	10.11	20/08/2010 14:53	9.509	20/08/2010 14:33	10.149
20/08/2010 15:18	9.386	20/08/2010 15:20	9.706	20/08/2010 15:21	9.04	20/08/2010 15:22	9.312	20/08/2010 15:23	10.11	20/08/2010 15:23	9.568	20/08/2010 15:03	10.247
20/08/2010 15:48	9.485	20/08/2010 15:50	9.811	20/08/2010 15:51	9.149	20/08/2010 15:52	9.411	20/08/2010 15:53	10.075	20/08/2010 15:53	9.568	20/08/2010 15:33	10.271
20/08/2010 16:18	9.583	20/08/2010 16:20	9.731	20/08/2010 16:21	9.386	20/08/2010 16:22	9.485	20/08/2010 16:23	10.075	20/08/2010 16:23	9.608	20/08/2010 16:03	10.247
20/08/2010 16:48	9.632	20/08/2010 16:50	9.706	20/08/2010 16:51	9.213	20/08/2010 16:52	9.558	20/08/2010 16:53	10.001	20/08/2010 16:53	9.583	20/08/2010 16:33	10.198
20/08/2010 17:18	9.657	20/08/2010 17:20	9.682	20/08/2010 17:21	9.238	20/08/2010 17:22	9.558	20/08/2010 17:23	9.854	20/08/2010 17:23	9.509	20/08/2010 17:03	10.11
20/08/2010 17:48	9.608	20/08/2010 17:50	9.608	20/08/2010 17:51	9.262	20/08/2010 17:52	9.583	20/08/2010 17:53	9.756	20/08/2010 17:53	9.435	20/08/2010 17:33	10.051
20/08/2010 18:18	9.534	20/08/2010 18:20	9.445	20/08/2010 18:21	9.213	20/08/2010 18:22	9.534	20/08/2010 18:23	9.608	20/08/2010 18:23	9.435	20/08/2010 18:03	10.024
20/08/2010 18:48	9.405	20/08/2010 18:50	9.312	20/08/2010 18:51	9.163	20/08/2010 18:52	9.46	20/08/2010 18:53	9.608	20/08/2010 18:53	9.336	20/08/2010 18:33	9.979
20/08/2010 19:18	9.336	20/08/2010 19:20	9.213	20/08/2010 19:21	9.114	20/08/2010 19:22	9.41	20/08/2010 19:23	9.608	20/08/2010 19:23	9.336	20/08/2010 19:03	9.954
20/08/2010 19:48	9.238	20/08/2010 19:50	9.139	20/08/2010 19:51	9.04	20/08/2010 19:52	9.312	20/08/2010 19:53	9.558	20/08/2010 19:53	9.336	20/08/2010 19:33	9.78
20/08/2010 20:18	9.085	20/08/2010 20:20	8.95	20/08/2010 20:21	8.854	20/08/2010 20:22	9.114	20/08/2010 20:23	9.213	20/08/2010 20:23	9.015	20/08/2010 20:03	9.713
20/08/2010 20:48	8.916	20/08/2010 20:50	8.792	20/08/2010 20:51	8.866	20/08/2010 20:52	9.009	20/08/2010 20:53	9.312	20/08/2010 20:53	9.114	20/08/2010 20:33	9.608
20/08/2010 21:18	8.668	20/08/2010 21:20	8.494	20/08/2010 21:21	8.742	20/08/2010 21:22	8.941	20/08/2010 21:23	9.064	20/08/2010 21:23	8.894	20/08/2010 21:03	9.509
20/08/2010 21:48	8.344	20/08/2010 21:50	8.12	20/08/2010 21:51	8.568	20/08/2010 21:52	8.767	20/08/2010 21:53	8.767	20/08/2010 21:53	8.643	20/08/2010 21:33	9.149
20/08/2010 22:18	8.02	20/08/2010 22:20	7.72	20/08/2010 22:21	8.344	20/08/2010 22:22	8.519	20/08/2010 22:23	8.599	20/08/2010 22:23	8.469	20/08/2010 22:03	9.163
20/08/2010 22:48	7.745	20/08/2010 22:50	7.419	20/08/2010 22:51	8.12	20/08/2010 22:52	8.27	20/08/2010 22:53	8.419	20/08/2010 22:53	8.394	20/08/2010 22:33	9.015
20/08/2010 23:18	7.519	20/08/2010 23:20	7.293	20/08/2010 23:21	7.895	20/08/2010 23:22	8.07	20/08/2010 23:23	8.195	20/08/2010 23:23	8.245	20/08/2010 23:03	8.841
20/08/2010 23:48	7.293	20/08/2010 23:50	7.142	20/08/2010 23:51	7.77	20/08/2010 23:52	7.87	20/08/2010 23:53	8.02	20/08/2010 23:53	8.07	20/08/2010 23:33	8.668
21/08/2010 0:18	7.69	21/08/2010 0:20	7.965	21/08/2010 0:21	7.965	21/08/2010 0:22	7.965	21/08/2010 0:23	7.792	21/08/2010 0:23	7.792	21/08/2010 0:03	7.792
21/08/2010 0:48	6.889	21/08/2010 0:50	6.788	21/08/2010 0:51	7.393	21/08/2010 0:52	7.494	21/08/2010 0:53	7.569	21/08/2010 0:53	7.745	21/08/2010 0:33	8.369
21/08/2010 1:18	6.661	21/08/2010 1:20	6.611	21/08/2010 1:21	7.268	21/08/2010 1:22	7.318	21/08/2010 1:23	7.343	21/08/2010 1:23	7.519	21/08/2010 1:03	8.195
21/08/2010 1:48	6.498	21/08/2010 1:50	6.433	21/08/2010 1:51	7.116	21/08/2010 1:52	7.142	21/08/2010 1:53	7.116	21/08/2010 1:53	7.393	21/08/2010 1:33	8.02
21/08/2010 2:18	6.255	21/08/2010 2:20	6.204	21/08/2010 2:21	7.015	21/08/2010 2:22	7.015	21/08/2010 2:23	7.015	21/08/2010 2:23	7.015	21/08/2010 2:03	7.696
21/08/2010 2:48	6.102	21/08/2010 2:50	6.304	21/08/2010 2:51	6.889	21/08/2010 2:52	6.864	21/08/2010 2:53	7.015	21/08/2010 2:53	7.318	21/08/2010 2:33	7.745
21/08/2010 3:18	6	21/08/2010 3:20	6.102	21/08/2010 3:21	6.798	21/08/2010 3:22	6.737	21/08/2010 3:23	7.015	21/08/2010 3:23	7.268	21/08/2010 3:03	7.745

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
22/08/2010 0:18	7.945	22/08/2010 0:20	7.772	22/08/2010 0:21	8.171	22/08/2010 0:23	8.195	22/08/2010 0:23	8.841	22/08/2010 0:23	9.089	22/08/2010 0:03	9.004
22/08/2010 0:48	7.569	22/08/2010 0:50	7.343	22/08/2010 0:51	7.895	22/08/2010 0:52	7.817	22/08/2010 0:53	8.593	22/08/2010 0:53	8.866	22/08/2010 0:33	8.792
22/08/2010 1:18	7.192	22/08/2010 1:20	7.015	22/08/2010 1:21	7.567	22/08/2010 1:22	7.544	22/08/2010 1:23	8.394	22/08/2010 1:23	8.669	22/08/2010 1:03	8.543
22/08/2010 1:48	6.814	22/08/2010 1:50	6.763	22/08/2010 1:51	7.444	22/08/2010 1:52	7.293	22/08/2010 1:53	8.195	22/08/2010 1:53	8.568	22/08/2010 1:33	8.366
22/08/2010 2:18	6.661	22/08/2010 2:20	6.737	22/08/2010 2:21	7.293	22/08/2010 2:22	7.091	22/08/2010 2:23	8.112	22/08/2010 2:23	8.419	22/08/2010 2:03	8.195
22/08/2010 2:48	6.484	22/08/2010 2:50	6.661	22/08/2010 2:51	7.192	22/08/2010 2:52	6.965	22/08/2010 2:53	7.995	22/08/2010 2:53	8.295	22/08/2010 2:33	8.07
22/08/2010 3:18	6.306	22/08/2010 3:20	6.509	22/08/2010 3:21	7.091	22/08/2010 3:22	6.854	22/08/2010 3:23	7.932	22/08/2010 3:23	8.195	22/08/2010 3:03	7.97
22/08/2010 3:48	6.128	22/08/2010 3:50	6.307	22/08/2010 3:51	6.895	22/08/2010 3:52	6.717	22/08/2010 3:53	7.782	22/08/2010 3:53	8.07	22/08/2010 3:33	7.896
22/08/2010 4:18	5.975	22/08/2010 4:20	6.179	22/08/2010 4:21	6.813	22/08/2010 4:22	6.585	22/08/2010 4:23	7.777	22/08/2010 4:23	7.995	22/08/2010 4:03	7.82
22/08/2010 4:48	5.872	22/08/2010 4:50	6.102	22/08/2010 4:51	6.687	22/08/2010 4:52	6.484	22/08/2010 4:53	7.745	22/08/2010 4:53	7.932	22/08/2010 4:33	7.795
22/08/2010 5:18	5.777	22/08/2010 5:20	6.077	22/08/2010 5:21	6.585	22/08/2010 5:22	6.408	22/08/2010 5:23	7.695	22/08/2010 5:23	7.82	22/08/2010 5:03	7.777
22/08/2010 5:48	5.695	22/08/2010 5:50	6.005	22/08/2010 5:51	6.484	22/08/2010 5:52	6.357	22/08/2010 5:53	7.645	22/08/2010 5:53	7.777	22/08/2010 5:33	7.745
22/08/2010 6:18	5.568	22/08/2010 6:20	5.975	22/08/2010 6:21	6.408	22/08/2010 6:22	6.331	22/08/2010 6:23	7.619	22/08/2010 6:23	7.777	22/08/2010 6:03	7.745
22/08/2010 6:48	5.568	22/08/2010 6:50	5.949	22/08/2010 6:51	6.302	22/08/2010 6:52	6.306	22/08/2010 6:53	7.695	22/08/2010 6:53	7.82	22/08/2010 6:33	7.777
22/08/2010 7:18	5.719	22/08/2010 7:20	6.051	22/08/2010 7:21	6.408	22/08/2010 7:22	6.331	22/08/2010 7:23	7.777	22/08/2010 7:23	7.82	22/08/2010 7:03	7.777
22/08/2010 7:48	5.796	22/08/2010 7:50	6.25	22/08/2010 7:51	6.408	22/08/2010 7:52	6.408	22/08/2010 7:53	7.895	22/08/2010 7:53	7.877	22/08/2010 7:33	7.846
22/08/2010 8:18	5.949	22/08/2010 8:20	6.458	22/08/2010 8:21	6.535	22/08/2010 8:22	6.509	22/08/2010 8:23	8.077	22/08/2010 8:23	7.977	22/08/2010 8:03	7.977
22/08/2010 8:48	6.128	22/08/2010 8:50	6.712	22/08/2010 8:51	6.687	22/08/2010 8:52	6.636	22/08/2010 8:53	8.295	22/08/2010 8:53	8.127	22/08/2010 8:33	8.07
22/08/2010 9:18	6.408	22/08/2010 9:20	7.091	22/08/2010 9:21	6.864	22/08/2010 9:22	6.813	22/08/2010 9:23	8.543	22/08/2010 9:23	8.277	22/08/2010 9:03	8.245
22/08/2010 9:48	6.813	22/08/2010 9:50	7.619	22/08/2010 9:51	7.091	22/08/2010 9:52	7.041	22/08/2010 9:53	8.891	22/08/2010 9:53	8.519	22/08/2010 9:33	8.519
22/08/2010 10:18	7.293	22/08/2010 10:20	8.295	22/08/2010 10:21	7.308	22/08/2010 10:22	7.343	22/08/2010 10:23	9.312	22/08/2010 10:23	8.841	22/08/2010 10:03	8.792
22/08/2010 10:48	7.845	22/08/2010 10:50	8.99	22/08/2010 10:51	7.772	22/08/2010 10:52	7.695	22/08/2010 10:53	9.756	22/08/2010 10:53	9.213	22/08/2010 10:33	9.114
22/08/2010 11:18	8.419	22/08/2010 11:20	9.608	22/08/2010 11:21	8.095	22/08/2010 11:22	8.095	22/08/2010 11:23	10.173	22/08/2010 11:23	9.583	22/08/2010 11:03	9.386
22/08/2010 11:48	9.139	22/08/2010 11:50	10.467	22/08/2010 11:51	8.543	22/08/2010 11:52	8.594	22/08/2010 11:53	11.292	22/08/2010 11:53	10.029	22/08/2010 11:33	9.858
22/08/2010 12:18	9.731	22/08/2010 12:20	11.613	22/08/2010 12:21	9.015	22/08/2010 12:22	9.064	22/08/2010 12:23	11.2	22/08/2010 12:23	10.389	22/08/2010 12:03	10.198
22/08/2010 12:48	10.761	22/08/2010 12:50	12.509	22/08/2010 12:51	9.509	22/08/2010 12:52	9.632	22/08/2010 12:53	11.662	22/08/2010 12:53	10.883	22/08/2010 12:33	10.638
22/08/2010 13:18	11.613	22/08/2010 13:20	13.209	22/08/2010 13:21	9.977	22/08/2010 13:22	10.173	22/08/2010 13:23	12.292	22/08/2010 13:23	11.443	22/08/2010 13:03	11.273
22/08/2010 13:48	12.292	22/08/2010 13:50	14.245	22/08/2010 13:51	10.516	22/08/2010 13:52	10.781	22/08/2010 13:53	13.293	22/08/2010 13:53	12.147	22/08/2010 13:33	11.947
22/08/2010 14:18	12.775	22/08/2010 14:20	14.117	22/08/2010 14:21	11.053	22/08/2010 14:22	11.053	22/08/2010 14:23	14.029	22/08/2010 14:23	12.777	22/08/2010 14:03	11.613
22/08/2010 14:48	13.04	22/08/2010 14:50	14.529	22/08/2010 14:51	11.467	22/08/2010 14:52	11.929	22/08/2010 14:53	13.425	22/08/2010 14:53	13.064	22/08/2010 14:33	12.413
22/08/2010 15:18	13.186	22/08/2010 15:20	15.031	22/08/2010 15:21	11.896	22/08/2010 15:22	12.437	22/08/2010 15:23	13.798	22/08/2010 15:23	13.267	22/08/2010 15:03	12.799
22/08/2010 15:48	13.497	22/08/2010 15:50	15.306	22/08/2010 15:51	12.243	22/08/2010 15:52	12.871	22/08/2010 15:53	14.194	22/08/2010 15:53	13.552	22/08/2010 15:33	13.064
22/08/2010 16:18	13.762	22/08/2010 16:20	15.605	22/08/2010 16:21	12.437	22/08/2010 16:22	13.185	22/08/2010 16:23	14.529	22/08/2010 16:23	13.618	22/08/2010 16:03	13.329
22/08/2010 16:48	14.002	22/08/2010 16:50	15.223	22/08/2010 16:51	12.606	22/08/2010 16:52	13.425	22/08/2010 16:53	14.697	22/08/2010 16:53	13.762	22/08/2010 16:33	13.522
22/08/2010 17:18	14.146	22/08/2010 17:20	15.294	22/08/2010 17:21	12.703	22/08/2010 17:22	13.594	22/08/2010 17:23	14.768	22/08/2010 17:23	13.93	22/08/2010 17:03	13.618
22/08/2010 17:48	14.218	22/08/2010 17:50	15.175	22/08/2010 17:51	12.727	22/08/2010 17:52	13.666	22/08/2010 17:53	14.721	22/08/2010 17:53	14.029	22/08/2010 17:33	13.305
22/08/2010 18:18	14.146	22/08/2010 18:20	14.912	22/08/2010 18:21	12.678	22/08/2010 18:22	13.564	22/08/2010 18:23	14.655	22/08/2010 18:23	13.978	22/08/2010 18:03	13.267
22/08/2010 18:48	14.002	22/08/2010 18:50	14.505	22/08/2010 18:51	12.606	22/08/2010 18:52	13.497	22/08/2010 18:53	14.409	22/08/2010 18:53	13.81	22/08/2010 18:33	13.161
22/08/2010 19:18	13.81	22/08/2010 19:20	14.05	22/08/2010 19:21	12.509	22/08/2010 19:22	13.281	22/08/2010 19:23	14.074	22/08/2010 19:23	13.594	22/08/2010 19:03	12.992
22/08/2010 19:48	13.57	22/08/2010 19:50	13.57	22/08/2010 19:51	12.389	22/08/2010 19:52	13.04	22/08/2010 19:53	13.738	22/08/2010 19:53	13.377	22/08/2010 19:33	12.775
22/08/2010 20:18	13.257	22/08/2010 20:20	13.064	22/08/2010 20:21	12.215	22/08/2010 20:22	12.799	22/08/2010 20:23	13.425	22/08/2010 20:23	12.917	22/08/2010 20:03	12.606
22/08/2010 20:48	12.92	22/08/2010 20:50	12.534	22/08/2010 20:51	12.025	22/08/2010 20:52	12.509	22/08/2010 20:53	13.04	22/08/2010 20:53	12.871	22/08/2010 20:33	12.195
22/08/2010 21:18	12.534	22/08/2010 21:20	12.05	22/08/2010 21:21	11.783	22/08/2010 21:22	12.219	22/08/2010 21:23	12.654	22/08/2010 21:23	12.558	22/08/2010 21:03	11.855
22/08/2010 21:48	12.122	22/08/2010 21:50	11.516	22/08/2010 21:51	11.516	22/08/2010 21:52	11.88	22/08/2010 21:53	12.292	22/08/2010 21:53	12.243	22/08/2010 21:33	11.516
22/08/2010 22:18	11.662	22/08/2010 22:20	11.005	22/08/2010 22:21	11.2	22/08/2010 22:22	11.54	22/08/2010 22:23	11.953	22/08/2010 22:23	11.662	22/08/2010 22:03	11.2
22/08/2010 22:48	11.224	22/08/2010 22:50	10.516	22/08/2010 22:51	10.883	22/08/2010 22:52	11.175	22/08/2010 22:53	11.599	22/08/2010 22:53	11.734	22/08/2010 22:33	10.932
22/08/2010 23:18	10.761	22/08/2010 23:20	10.075	22/08/2010 23:21	10.565	22/08/2010 23:22	10.81	22/08/2010 23:23	11.321	22/08/2010 23:23	11.516	22/08/2010 23:03	10.638
22/08/2010 23:48	10.296	22/08/2010 23:50	9.662	22/08/2010 23:51	10.247	22/08/2010 23:52	10.467	22/08/2010 23:53	11.029	22/08/2010 23:53	11.297	22/08/2010 23:33	10.345
23/08/2010 0:18	9.287	23/08/2010 0:20	9.287	23/08/2010 0:21	9.287	23/08/2010 0:22	9.287	23/08/2010 0:23	9.287	23/08/2010 0:23	9.287	23/08/2010 0:03	9.287
23/08/2010 0:48	9.41	23/08/2010 0:50	8.941	23/08/2010 0:51	9.652	23/08/2010 0:52	9.756	23/08/2010 0:53	10.492	23/08/2010 0:53	10.761	23/08/2010 0:33	9.654
23/08/2010 1:18	8.965	23/08/2010 1:20	8.618	23/08/2010 1:21	9.41	23/08/2010 1:22	9.41	23/08/2010 1:23	10.247	23/08/2010 1:23	10.541	23/08/2010 1:03	9.601
23/08/2010 1:48	8.643	23/08/2010 1:50	8.319	23/08/2010 1:51	9.139	23/08/2010 1:52	9.114	23/08/2010 1:53	10.001	23/08/2010 1:53	10.296	23/08/2010 1:33	9.41
23/08/2010 2:18	8.319	23/08/2010 2:20	8.245	23/08/2010 2:21	8.965	23/08/2010 2:22	8.965	23/08/2010 2:23	9.756	23/08/2010 2:23	10.029	23/08/2010 2:03	9.146
23/08/2010 2:48	7.97	23/08/2010 2:50	7.845	23/08/2010 2:51	8.713	23/08/2010 2:52	8.568	23/08/2010 2:53	9.495	23/08/2010 2:53	9.829	23/08/2010 2:33	9.04
23/08/2010 3:18	7.645	23/08/											

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9725609)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
24/08/2010 0:18	9.97	24/08/2010 0:20	9.509	24/08/2010 0:21	9.657	24/08/2010 0:22	9.903	24/08/2010 0:23	11.020	24/08/2010 0:23	10.834	24/08/2010 0:03	10.443
24/08/2010 0:48	9.534	24/08/2010 0:50	9.163	24/08/2010 0:51	9.435	24/08/2010 0:52	9.608	24/08/2010 0:53	10.761	24/08/2010 0:53	10.59	24/08/2010 0:33	10.222
24/08/2010 1:18	9.139	24/08/2010 1:20	8.866	24/08/2010 1:21	9.362	24/08/2010 1:22	9.312	24/08/2010 1:23	10.492	24/08/2010 1:23	10.369	24/08/2010 1:03	10.001
24/08/2010 1:48	8.745	24/08/2010 1:50	8.568	24/08/2010 1:51	9.04	24/08/2010 1:52	9.015	24/08/2010 1:53	10.247	24/08/2010 1:53	10.124	24/08/2010 1:33	9.867
24/08/2010 2:18	8.394	24/08/2010 2:20	8.245	24/08/2010 2:21	8.817	24/08/2010 2:22	8.742	24/08/2010 2:23	9.977	24/08/2010 2:23	9.879	24/08/2010 2:03	9.608
24/08/2010 2:48	8.02	24/08/2010 2:50	7.92	24/08/2010 2:51	8.593	24/08/2010 2:52	8.494	24/08/2010 2:53	9.805	24/08/2010 2:53	9.657	24/08/2010 2:33	9.41
24/08/2010 3:18	7.695	24/08/2010 3:20	7.645	24/08/2010 3:21	8.369	24/08/2010 3:22	8.22	24/08/2010 3:23	9.508	24/08/2010 3:23	9.396	24/08/2010 3:03	9.215
24/08/2010 3:48	7.386	24/08/2010 3:50	7.369	24/08/2010 3:51	8.145	24/08/2010 3:52	7.995	24/08/2010 3:53	8.435	24/08/2010 3:53	8.163	24/08/2010 3:33	8.054
24/08/2010 4:18	7.091	24/08/2010 4:20	7.091	24/08/2010 4:21	7.92	24/08/2010 4:22	7.77	24/08/2010 4:23	9.262	24/08/2010 4:23	8.965	24/08/2010 4:03	8.891
24/08/2010 4:48	6.813	24/08/2010 4:50	6.839	24/08/2010 4:51	7.745	24/08/2010 4:52	7.569	24/08/2010 4:53	9.064	24/08/2010 4:53	8.767	24/08/2010 4:33	8.742
24/08/2010 5:18	6.535	24/08/2010 5:20	6.611	24/08/2010 5:21	7.569	24/08/2010 5:22	7.368	24/08/2010 5:23	8.891	24/08/2010 5:23	8.593	24/08/2010 5:03	8.618
24/08/2010 5:48	6.261	24/08/2010 5:50	6.367	24/08/2010 5:51	7.393	24/08/2010 5:52	7.182	24/08/2010 5:53	8.669	24/08/2010 5:53	8.394	24/08/2010 5:33	8.494
24/08/2010 6:18	6.077	24/08/2010 6:20	6.179	24/08/2010 6:21	7.217	24/08/2010 6:22	7.015	24/08/2010 6:23	8.543	24/08/2010 6:23	8.27	24/08/2010 6:03	8.369
24/08/2010 6:48	5.949	24/08/2010 6:50	6.077	24/08/2010 6:51	7.066	24/08/2010 6:52	6.864	24/08/2010 6:53	8.519	24/08/2010 6:53	8.245	24/08/2010 6:33	8.27
24/08/2010 7:18	5.949	24/08/2010 7:20	6.204	24/08/2010 7:21	6.99	24/08/2010 7:22	6.788	24/08/2010 7:23	8.643	24/08/2010 7:23	8.27	24/08/2010 7:03	8.27
24/08/2010 7:48	5.677	24/08/2010 7:50	6.509	24/08/2010 7:51	7.015	24/08/2010 7:52	6.763	24/08/2010 7:53	8.941	24/08/2010 7:53	8.644	24/08/2010 7:33	8.177
24/08/2010 8:18	6.255	24/08/2010 8:20	6.813	24/08/2010 8:21	7.116	24/08/2010 8:22	6.813	24/08/2010 8:23	9.064	24/08/2010 8:23	8.419	24/08/2010 8:03	8.319
24/08/2010 8:48	6.509	24/08/2010 8:50	7.167	24/08/2010 8:51	7.293	24/08/2010 8:52	6.914	24/08/2010 8:53	9.361	24/08/2010 8:53	8.618	24/08/2010 8:33	8.369
24/08/2010 9:18	6.864	24/08/2010 9:20	7.645	24/08/2010 9:21	7.519	24/08/2010 9:22	7.066	24/08/2010 9:23	9.756	24/08/2010 9:23	8.916	24/08/2010 9:03	8.742
24/08/2010 9:48	7.293	24/08/2010 9:50	8.394	24/08/2010 9:51	7.77	24/08/2010 9:52	7.289	24/08/2010 9:53	10.294	24/08/2010 9:53	9.297	24/08/2010 9:33	9.262
24/08/2010 10:18	7.795	24/08/2010 10:20	9.139	24/08/2010 10:21	8.07	24/08/2010 10:22	7.544	24/08/2010 10:23	10.883	24/08/2010 10:23	9.657	24/08/2010 10:03	9.608
24/08/2010 10:48	8.369	24/08/2010 10:50	9.854	24/08/2010 10:51	8.444	24/08/2010 10:52	7.87	24/08/2010 10:53	11.54	24/08/2010 10:53	10.1	24/08/2010 10:33	10.124
24/08/2010 11:18	9.089	24/08/2010 11:20	10.883	24/08/2010 11:21	8.866	24/08/2010 11:22	8.27	24/08/2010 11:23	12.195	24/08/2010 11:23	10.541	24/08/2010 11:03	10.663
24/08/2010 11:48	9.829	24/08/2010 11:50	11.907	24/08/2010 11:51	9.262	24/08/2010 11:52	8.742	24/08/2010 11:53	12.871	24/08/2010 11:53	11.078	24/08/2010 11:33	11.1
24/08/2010 12:18	10.663	24/08/2010 12:20	12.675	24/08/2010 12:21	9.731	24/08/2010 12:22	9.312	24/08/2010 12:23	13.546	24/08/2010 12:23	11.566	24/08/2010 12:03	11.734
24/08/2010 12:48	11.467	24/08/2010 12:50	13.594	24/08/2010 12:51	10.222	24/08/2010 12:52	9.903	24/08/2010 12:53	14.17	24/08/2010 12:53	12.001	24/08/2010 12:33	12.195
24/08/2010 13:18	12.243	24/08/2010 13:20	14.361	24/08/2010 13:21	10.712	24/08/2010 13:22	10.541	24/08/2010 13:23	14.768	24/08/2010 13:23	12.437	24/08/2010 13:03	12.678
24/08/2010 13:48	12.968	24/08/2010 13:50	15.103	24/08/2010 13:51	11.248	24/08/2010 13:52	11.175	24/08/2010 13:53	15.318	24/08/2010 13:53	12.823	24/08/2010 13:33	13.269
24/08/2010 14:18	13.642	24/08/2010 14:20	15.796	24/08/2010 14:21	11.696	24/08/2010 14:22	11.623	24/08/2010 14:23	15.943	24/08/2010 14:23	13.024	24/08/2010 14:03	13.714
24/08/2010 14:48	14.266	24/08/2010 14:50	16.32	24/08/2010 14:51	12.122	24/08/2010 14:52	12.413	24/08/2010 14:53	16.272	24/08/2010 14:53	13.714	24/08/2010 14:33	14.098
24/08/2010 15:18	14.792	24/08/2010 15:20	16.654	24/08/2010 15:21	12.509	24/08/2010 15:22	12.988	24/08/2010 15:23	16.487	24/08/2010 15:23	14.026	24/08/2010 15:03	14.409
24/08/2010 15:48	15.247	24/08/2010 15:50	16.944	24/08/2010 15:51	12.867	24/08/2010 15:52	13.449	24/08/2010 15:53	16.773	24/08/2010 15:53	14.266	24/08/2010 15:33	14.601
24/08/2010 16:18	15.605	24/08/2010 16:20	17.058	24/08/2010 16:21	13.064	24/08/2010 16:22	13.834	24/08/2010 16:23	16.82	24/08/2010 16:23	14.433	24/08/2010 16:03	14.601
24/08/2010 16:48	15.819	24/08/2010 16:50	17.011	24/08/2010 16:51	13.257	24/08/2010 16:52	14.122	24/08/2010 16:53	16.773	24/08/2010 16:53	14.529	24/08/2010 16:33	14.529
24/08/2010 17:18	15.963	24/08/2010 17:20	16.796	24/08/2010 17:21	13.377	24/08/2010 17:22	14.314	24/08/2010 17:23	15.682	24/08/2010 17:23	14.457	24/08/2010 17:03	14.337
24/08/2010 17:48	15.772	24/08/2010 17:50	16.082	24/08/2010 17:51	13.401	24/08/2010 17:52	14.337	24/08/2010 17:53	16.415	24/08/2010 17:53	14.433	24/08/2010 17:33	14.457
24/08/2010 18:18	15.605	24/08/2010 18:20	15.652	24/08/2010 18:21	13.401	24/08/2010 18:22	14.242	24/08/2010 18:23	16.463	24/08/2010 18:23	14.529	24/08/2010 18:03	14.266
24/08/2010 18:48	15.414	24/08/2010 18:50	15.294	24/08/2010 18:51	13.305	24/08/2010 18:52	14.146	24/08/2010 18:53	16.249	24/08/2010 18:53	14.601	24/08/2010 18:33	14.266
24/08/2010 19:18	15.247	24/08/2010 19:20	15.031	24/08/2010 19:21	13.185	24/08/2010 19:22	14.002	24/08/2010 19:23	15.867	24/08/2010 19:23	14.673	24/08/2010 19:03	14.194
24/08/2010 19:48	15.008	24/08/2010 19:50	14.625	24/08/2010 19:51	13.016	24/08/2010 19:52	13.81	24/08/2010 19:53	15.509	24/08/2010 19:53	14.553	24/08/2010 19:33	14.026
24/08/2010 20:18	14.792	24/08/2010 20:20	14.405	24/08/2010 20:21	12.863	24/08/2010 20:22	13.61	24/08/2010 20:23	14.146	24/08/2010 20:23	14.146	24/08/2010 20:03	13.766
24/08/2010 20:48	14.194	24/08/2010 20:50	13.449	24/08/2010 20:51	12.582	24/08/2010 20:52	13.305	24/08/2010 20:53	14.816	24/08/2010 20:53	13.81	24/08/2010 20:33	13.497
24/08/2010 21:18	13.69	24/08/2010 21:20	12.871	24/08/2010 21:21	12.316	24/08/2010 21:22	12.968	24/08/2010 21:23	14.361	24/08/2010 21:23	13.425	24/08/2010 21:03	13.185
24/08/2010 21:48	13.161	24/08/2010 21:50	12.292	24/08/2010 21:51	12.05	24/08/2010 21:52	12.666	24/08/2010 21:53	13.905	24/08/2010 21:53	13.04	24/08/2010 21:33	12.871
24/08/2010 22:18	12.654	24/08/2010 22:20	11.807	24/08/2010 22:21	11.795	24/08/2010 22:22	12.218	24/08/2010 22:23	13.473	24/08/2010 22:23	12.739	24/08/2010 22:03	12.568
24/08/2010 22:48	12.147	24/08/2010 22:50	11.321	24/08/2010 22:51	11.467	24/08/2010 22:52	11.832	24/08/2010 22:53	13.137	24/08/2010 22:53	12.389	24/08/2010 22:33	12.34
24/08/2010 23:18	11.71	24/08/2010 23:20	10.907	24/08/2010 23:21	11.2	24/08/2010 23:22	11.443	24/08/2010 23:23	12.799	24/08/2010 23:23	12.098	24/08/2010 23:03	12.074
24/08/2010 23:48	11.297	24/08/2010 23:50	10.541	24/08/2010 23:51	10.955	24/08/2010 23:52	11.102	24/08/2010 23:53	12.485	24/08/2010 23:53	11.783	24/08/2010 23:33	11.832
25/08/2010 0:18	10.18	25/08/2010 0:20	10.18	25/08/2010 0:21	10.18	25/08/2010 0:22	10.18	25/08/2010 0:23	10.18	25/08/2010 0:23	10.18	25/08/2010 0:03	10.18
25/08/2010 0:48	10.492	25/08/2010 0:50	9.854	25/08/2010 0:51	10.418	25/08/2010 0:52	10.443	25/08/2010 0:53	12.001	25/08/2010 0:53	11.151	25/08/2010 0:33	11.394
25/08/2010 1:18	10.1	25/08/2010 1:20	9.534	25/08/2010 1:21	10.198	25/08/2010 1:22	10.149	25/08/2010 1:23	11.783	25/08/2010 1:23	10.761	25/08/2010 1:03	11.175
25/08/2010 1:48	9.796	25/08/2010 1:50	9.238	25/08/2010 1:51	9.977	25/08/2010 1:52	9.903	25/08/2010 1:53	11.54	25/08/2010 1:53	10.516	25/08/2010 1:33	10.98
25/08/2010 2:18	9.435	25/08/2010 2:20	8.966	25/08/2010 2:21	9.608	25/08/2010 2:22	9.608	25/08/2010 2:23	10.761	25/08/2010 2:23	10.59	25/08/2010 2:03	10.222
25/08/2010 2:48	9.114	25/08/2010 2:50	8.645	25/08/2010 2:51	9.534	25/08/2010 2:52	9.336	25/08/2010 2:53	11.053	25/08/2010 2:53	10.051	25/08/2010 2:33	9.867
25/08/2010 3:18	8.841	25/08/2010 3:											

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Logger 1 (9765603)		Logger 2 (9765607)		Logger 3 (9765608)		Logger 4 (9765610)		Logger 5 (9765611)		Logger 6 (9765612)		Logger 7 (9722569)	
Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)	Date and Time	Temp (C)
26/08/2010 0:18	10.687	26/08/2010 0:20	9.78	26/08/2010 0:21	10.443	26/08/2010 0:22	10.610	26/08/2010 0:23	11.807	26/08/2010 0:23	11.921	26/08/2010 0:03	11.127
26/08/2010 0:48	10.296	26/08/2010 0:50	9.46	26/08/2010 0:51	10.198	26/08/2010 0:52	10.296	26/08/2010 0:53	11.54	26/08/2010 0:53	10.883	26/08/2010 0:33	10.883
26/08/2010 1:18	9.854	26/08/2010 1:20	9.139	26/08/2010 1:21	9.952	26/08/2010 1:22	10.001	26/08/2010 1:23	11.346	26/08/2010 1:23	10.638	26/08/2010 1:03	10.638
26/08/2010 1:48	9.46	26/08/2010 1:50	8.792	26/08/2010 1:51	8.706	26/08/2010 1:52	8.711	26/08/2010 1:53	11.224	26/08/2010 1:53	10.482	26/08/2010 1:33	10.487
26/08/2010 2:18	9.114	26/08/2010 2:20	8.593	26/08/2010 2:21	9.509	26/08/2010 2:22	9.46	26/08/2010 2:23	11.102	26/08/2010 2:23	10.394	26/08/2010 2:03	10.345
26/08/2010 2:48	8.866	26/08/2010 2:50	8.519	26/08/2010 2:51	9.386	26/08/2010 2:52	9.262	26/08/2010 2:53	10.98	26/08/2010 2:53	10.296	26/08/2010 2:33	10.222
26/08/2010 3:18	8.688	26/08/2010 3:20	8.444	26/08/2010 3:21	9.262	26/08/2010 3:22	9.139	26/08/2010 3:23	10.859	26/08/2010 3:23	10.198	26/08/2010 3:03	10.124
26/08/2010 3:48	8.543	26/08/2010 3:50	8.394	26/08/2010 3:51	9.188	26/08/2010 3:52	9.015	26/08/2010 3:53	10.785	26/08/2010 3:53	10.078	26/08/2010 3:33	10.051
26/08/2010 4:18	8.419	26/08/2010 4:20	8.394	26/08/2010 4:21	9.139	26/08/2010 4:22	8.941	26/08/2010 4:23	10.736	26/08/2010 4:23	9.977	26/08/2010 4:03	10.001
26/08/2010 4:48	8.295	26/08/2010 4:50	8.369	26/08/2010 4:51	9.064	26/08/2010 4:52	8.866	26/08/2010 4:53	10.687	26/08/2010 4:53	9.952	26/08/2010 4:33	9.977
26/08/2010 5:18	8.17	26/08/2010 5:20	8.245	26/08/2010 5:21	8.99	26/08/2010 5:22	8.817	26/08/2010 5:23	10.638	26/08/2010 5:23	9.903	26/08/2010 5:03	9.952
26/08/2010 5:48	8.095	26/08/2010 5:50	8.12	26/08/2010 5:51	8.916	26/08/2010 5:52	8.767	26/08/2010 5:53	10.59	26/08/2010 5:53	9.858	26/08/2010 5:33	9.903
26/08/2010 6:18	8.02	26/08/2010 6:20	7.995	26/08/2010 6:21	8.817	26/08/2010 6:22	8.693	26/08/2010 6:23	10.516	26/08/2010 6:23	9.706	26/08/2010 6:03	9.879
26/08/2010 6:48	7.97	26/08/2010 6:50	7.97	26/08/2010 6:51	8.742	26/08/2010 6:52	8.643	26/08/2010 6:53	10.467	26/08/2010 6:53	9.682	26/08/2010 6:33	9.854
26/08/2010 7:18	7.995	26/08/2010 7:20	8.02	26/08/2010 7:21	8.693	26/08/2010 7:22	8.643	26/08/2010 7:23	10.541	26/08/2010 7:23	9.706	26/08/2010 7:03	9.854
26/08/2010 7:48	8.095	26/08/2010 7:50	8.22	26/08/2010 7:51	8.693	26/08/2010 7:52	8.643	26/08/2010 7:53	10.736	26/08/2010 7:53	9.756	26/08/2010 7:33	9.903
26/08/2010 8:18	8.245	26/08/2010 8:20	8.444	26/08/2010 8:21	8.693	26/08/2010 8:22	8.693	26/08/2010 8:23	10.956	26/08/2010 8:23	9.829	26/08/2010 8:03	10.001
26/08/2010 8:48	8.369	26/08/2010 8:50	8.593	26/08/2010 8:51	8.717	26/08/2010 8:52	8.742	26/08/2010 8:53	11.175	26/08/2010 8:53	9.928	26/08/2010 8:33	10.149
26/08/2010 9:18	8.489	26/08/2010 9:20	8.717	26/08/2010 9:21	8.817	26/08/2010 9:22	8.792	26/08/2010 9:23	11.273	26/08/2010 9:23	10.1	26/08/2010 9:03	10.271
26/08/2010 9:48	8.742	26/08/2010 9:50	9.213	26/08/2010 9:51	8.891	26/08/2010 9:52	8.891	26/08/2010 9:53	11.394	26/08/2010 9:53	10.271	26/08/2010 9:33	10.418
26/08/2010 10:18	8.916	26/08/2010 10:20	9.558	26/08/2010 10:21	9.114	26/08/2010 10:22	9.015	26/08/2010 10:23	11.443	26/08/2010 10:23	10.467	26/08/2010 10:03	10.418
26/08/2010 10:48	9.41	26/08/2010 10:50	10.173	26/08/2010 10:51	9.386	26/08/2010 10:52	9.238	26/08/2010 10:53	11.565	26/08/2010 10:53	10.59	26/08/2010 10:33	10.614
26/08/2010 11:18	9.928	26/08/2010 11:20	10.38	26/08/2010 11:21	9.608	26/08/2010 11:22	9.558	26/08/2010 11:23	11.613	26/08/2010 11:23	10.687	26/08/2010 11:03	10.712
26/08/2010 11:48	10.541	26/08/2010 11:50	11.086	26/08/2010 11:51	9.979	26/08/2010 11:52	10.001	26/08/2010 11:53	11.823	26/08/2010 11:53	11.078	26/08/2010 11:33	11.154
26/08/2010 12:18	11.346	26/08/2010 12:20	12.534	26/08/2010 12:21	10.271	26/08/2010 12:22	10.443	26/08/2010 12:23	12.292	26/08/2010 12:23	11.852	26/08/2010 12:03	11.807
26/08/2010 12:48	11.759	26/08/2010 12:50	12.678	26/08/2010 12:51	10.565	26/08/2010 12:52	10.785	26/08/2010 12:53	12.992	26/08/2010 12:53	12.485	26/08/2010 12:33	12.534
26/08/2010 13:18	12.074	26/08/2010 13:20	12.485	26/08/2010 13:21	10.785	26/08/2010 13:22	11.029	26/08/2010 13:23	13.882	26/08/2010 13:23	12.992	26/08/2010 13:03	12.727
26/08/2010 13:48	12.316	26/08/2010 13:50	12.413	26/08/2010 13:51	10.907	26/08/2010 13:52	11.224	26/08/2010 13:53	14.122	26/08/2010 13:53	13.064	26/08/2010 13:33	12.847
26/08/2010 14:18	12.437	26/08/2010 14:20	12.558	26/08/2010 14:21	10.956	26/08/2010 14:22	11.37	26/08/2010 14:23	14.194	26/08/2010 14:23	13.329	26/08/2010 14:03	13.208
26/08/2010 14:48	12.558	26/08/2010 14:50	12.413	26/08/2010 14:51	10.883	26/08/2010 14:52	11.467	26/08/2010 14:53	14.385	26/08/2010 14:53	13.329	26/08/2010 14:33	13.594
26/08/2010 15:18	12.703	26/08/2010 15:20	12.389	26/08/2010 15:21	10.883	26/08/2010 15:22	11.565	26/08/2010 15:23	14.433	26/08/2010 15:23	13.497	26/08/2010 15:03	13.546
26/08/2010 15:48	12.799	26/08/2010 15:50	12.582	26/08/2010 15:51	10.932	26/08/2010 15:52	11.71	26/08/2010 15:53	14.385	26/08/2010 15:53	13.666	26/08/2010 15:33	13.978
26/08/2010 16:18	12.992	26/08/2010 16:20	12.847	26/08/2010 16:21	11.102	26/08/2010 16:22	11.896	26/08/2010 16:23	14.406	26/08/2010 16:23	13.666	26/08/2010 16:03	13.594
26/08/2010 16:48	13.161	26/08/2010 16:50	13.401	26/08/2010 16:51	11.224	26/08/2010 16:52	12.05	26/08/2010 16:53	14.601	26/08/2010 16:53	13.738	26/08/2010 16:33	14.05
26/08/2010 17:18	13.137	26/08/2010 17:20	13.353	26/08/2010 17:21	11.443	26/08/2010 17:22	12.219	26/08/2010 17:23	14.529	26/08/2010 17:23	13.594	26/08/2010 17:03	13.666
26/08/2010 17:48	13.161	26/08/2010 17:50	13.112	26/08/2010 17:51	11.595	26/08/2010 17:52	12.364	26/08/2010 17:53	14.266	26/08/2010 17:53	13.377	26/08/2010 17:33	13.57
26/08/2010 18:18	13.016	26/08/2010 18:20	12.947	26/08/2010 18:21	11.696	26/08/2010 18:22	12.386	26/08/2010 18:23	14.16	26/08/2010 18:23	13.257	26/08/2010 18:03	13.472
26/08/2010 18:48	12.799	26/08/2010 18:50	12.485	26/08/2010 18:51	11.696	26/08/2010 18:52	12.34	26/08/2010 18:53	13.81	26/08/2010 18:53	13.064	26/08/2010 18:33	13.305
26/08/2010 19:18	12.509	26/08/2010 19:20	12.147	26/08/2010 19:21	11.696	26/08/2010 19:22	12.243	26/08/2010 19:23	13.546	26/08/2010 19:23	12.823	26/08/2010 19:03	13.088
26/08/2010 19:48	12.243	26/08/2010 19:50	11.734	26/08/2010 19:51	11.565	26/08/2010 19:52	12.086	26/08/2010 19:53	13.209	26/08/2010 19:53	12.558	26/08/2010 19:33	12.847
26/08/2010 20:18	11.953	26/08/2010 20:20	11.346	26/08/2010 20:21	11.346	26/08/2010 20:22	11.994	26/08/2010 20:23	12.847	26/08/2010 20:23	12.268	26/08/2010 20:03	12.666
26/08/2010 20:48	11.686	26/08/2010 20:50	11.005	26/08/2010 20:51	11.127	26/08/2010 20:52	11.71	26/08/2010 20:53	12.534	26/08/2010 20:53	11.953	26/08/2010 20:33	12.34
26/08/2010 21:18	11.394	26/08/2010 21:20	10.687	26/08/2010 21:21	10.907	26/08/2010 21:22	11.492	26/08/2010 21:23	12.268	26/08/2010 21:23	11.637	26/08/2010 21:03	12.098
26/08/2010 21:48	11.078	26/08/2010 21:50	10.345	26/08/2010 21:51	10.687	26/08/2010 21:52	11.273	26/08/2010 21:53	12.001	26/08/2010 21:53	11.37	26/08/2010 21:33	11.856
26/08/2010 22:18	10.761	26/08/2010 22:20	10.051	26/08/2010 22:21	10.482	26/08/2010 22:22	11.053	26/08/2010 22:23	11.807	26/08/2010 22:23	11.224	26/08/2010 22:03	11.662
26/08/2010 22:48	10.467	26/08/2010 22:50	9.805	26/08/2010 22:51	10.296	26/08/2010 22:52	10.834	26/08/2010 22:53	11.589	26/08/2010 22:53	11.029	26/08/2010 22:33	11.467
26/08/2010 23:18	10.198	26/08/2010 23:20	9.608	26/08/2010 23:21	10.1	26/08/2010 23:22	10.59	26/08/2010 23:23	11.273	26/08/2010 23:23	10.687	26/08/2010 23:03	11.248
26/08/2010 23:48	9.928	26/08/2010 23:50	9.361	26/08/2010 23:51	9.903	26/08/2010 23:52	10.345	26/08/2010 23:53	10.907	26/08/2010 23:53	10.418	26/08/2010 23:33	10.96
27/08/2010 0:18	9.609	27/08/2010 0:20	9.068	27/08/2010 0:21	8.706	27/08/2010 0:22	10.075	27/08/2010 0:23	10.565	27/08/2010 0:23	10.11	27/08/2010 0:03	10.712
27/08/2010 0:48	9.312	27/08/2010 0:50	8.693	27/08/2010 0:51	9.46	27/08/2010 0:52	9.78	27/08/2010 0:53	10.247	27/08/2010 0:53	9.756	27/08/2010 0:33	10.443
27/08/2010 1:18	9.04	27/08/2010 1:20	8.469	27/08/2010 1:21	9.213	27/08/2010 1:22	9.509	27/08/2010 1:23	9.952	27/08/2010 1:23	9.435	27/08/2010 1:03	10.173
27/08/2010 1:48	8.792	27/08/2010 1:50	8.245	27/08/2010 1:51	9.969	27/08/2010 1:52	9.213	27/08/2010 1:53	9.78	27/08/2010 1:53	9.262	27/08/2010 1:33	9.928
27/08/2010 2:18	8.568	27/08/2010 2:20	8.095	27/08/2010 2:21	8.707	27/08/2010 2:22	8.99	27/08/2010 2:23	9.608	27/08/2010 2:23	9.04	27/08/2010 2:03	9.706
27/08/2010 2:48	8.369	27/08/2010 2:50	7.945	27/08/2010 2:51	8.618	27/08/2010 2:52	8.767	27/08/2010 2:53	9.46	27/08/2010 2:53	8.866	27/08/2010 2:33	9.509
27/08/2010 3:18													

Overall Summary Stats:

Mean:	13.36651565
Median:	13.425
Mode:	13.064
Maximum:	24.219
Minimum:	4.869
Stan Dev:	3.557995525

Overall Summary Stats by Station:

Logger 1	Logger 2	Logger 3	Logger 4	Logger 5	Logger 6	Logger 7
Mean: 12.8347425 Median: 12.775 Mode: 12.52 Maximum: 23.112 Minimum: 4.889 Stan Dev: 3.895010225	Mean: 13.11354553 Median: 12.92 Mode: 12.534 Maximum: 24.219 Minimum: 4.973 Stan Dev: 4.072326259	Mean: 13.0600276 Median: 13.06 Mode: 12.896 Maximum: 21.485 Minimum: 5.745 Stan Dev: 3.50365174	Mean: 13.33061521 Median: 13.449 Mode: 13.93 Maximum: 21.843 Minimum: 5.719 Stan Dev: 3.704722035	Mean: 14.26138675 Median: 14.433 Mode: 14.194 Maximum: 22.417 Minimum: 6.179 Stan Dev: 3.450246701	Mean: 13.55650384 Median: 13.83 Mode: 15.199 Maximum: 20.843 Minimum: 6.484 Stan Dev: 3.144292642	Mean: 13.404999532 Median: 13.83 Mode: 14.218 Maximum: 20.222 Minimum: 7.242 Stan Dev: 2.820952019

Summary Stats by Week:

Logger 1: July 14-20	Logger 2: July 14-20	Logger 3: July 14-20	Logger 4: July 14-20	Logger 5: July 14-20	Logger 6: July 14-20	Logger 7: July 14-20
Mean: 14.01800659 Median: 13.609 Mode: 11.273 Maximum: 22.369 Minimum: 6.494 Stan Dev: 3.600948009	Mean: 14.601125 Median: 13.908 Mode: 8.693 Maximum: 24.171 Minimum: 8.693 Stan Dev: 3.952876318	Mean: 14.61840774 Median: 14.29 Mode: 13.69 Maximum: 20.889 Minimum: 9.76 Stan Dev: 2.976339366	Mean: 14.93087795 Median: 14.509 Mode: 13.93 Maximum: 21.413 Minimum: 10.001 Stan Dev: 3.069601217	Mean: 15.47331845 Median: 15.521 Mode: 16.369 Maximum: 22.417 Minimum: 10.834 Stan Dev: 2.922658205	Mean: 14.65261012 Median: 14.965 Mode: 17.629 Maximum: 20.841 Minimum: 9.706 Stan Dev: 2.838072783	Mean: 14.487392586 Median: 14.397 Mode: 14.603 Maximum: 19.777 Minimum: 10.492 Stan Dev: 2.357668977
Logger 1: July 21-27	Logger 2: July 21-27	Logger 3: July 21-27	Logger 4: July 21-27	Logger 5: July 21-27	Logger 6: July 21-27	Logger 7: July 21-27
Mean: 15.19925559 Median: 14.912 Mode: 15.724 Maximum: 21.461 Minimum: 6.494 Stan Dev: 3.19870069	Mean: 15.4421369 Median: 15.103 Mode: 12.534 Maximum: 22.202 Minimum: 8.494 Stan Dev: 3.42830756	Mean: 15.71944944 Median: 15.262 Mode: 14.646 Maximum: 20.674 Minimum: 10.492 Stan Dev: 2.491577725	Mean: 16.08874405 Median: 15.676 Mode: 14.242 Maximum: 21.319 Minimum: 10.59 Stan Dev: 2.649055236	Mean: 16.73391071 Median: 16.654 Mode: 14.964 Maximum: 21.079 Minimum: 12.025 Stan Dev: 2.17197983	Mean: 15.74953571 Median: 15.652 Mode: 15.188 Maximum: 19.746 Minimum: 11.029 Stan Dev: 1.944416625	Mean: 15.635502598 Median: 15.495 Mode: 14.816 Maximum: 20.007 Minimum: 11.394 Stan Dev: 1.941781227
Logger 1: July 28 - Aug 3	Logger 2: July 28 - Aug 3	Logger 3: July 28 - Aug 3	Logger 4: July 28 - Aug 3	Logger 5: July 28 - Aug 3	Logger 6: July 28 - Aug 3	Logger 7: July 28 - Aug 3
Mean: 13.54192282 Median: 13.186 Mode: 11.566 Maximum: 21.356 Minimum: 6.763 Stan Dev: 3.738531483	Mean: 13.80760714 Median: 13.269 Mode: 11.71 Maximum: 22.561 Minimum: 6.433 Stan Dev: 3.932699985	Mean: 14.25083332 Median: 14.445 Mode: 10.899 Maximum: 20.889 Minimum: 7.745 Stan Dev: 3.468140167	Mean: 14.49397024 Median: 14.649 Mode: 15.392 Maximum: 21.676 Minimum: 7.419 Stan Dev: 3.671374556	Mean: 15.0752976 Median: 15.557 Mode: 16.344 Maximum: 22.226 Minimum: 7.82 Stan Dev: 3.723326732	Mean: 14.29484852 Median: 14.649 Mode: 14.567 Maximum: 19.603 Minimum: 7.995 Stan Dev: 3.199662097	Mean: 14.96628274 Median: 15.211 Mode: 14.509 Maximum: 20.222 Minimum: 9.262 Stan Dev: 2.787825787
Logger 1: August 4-10	Logger 2: August 4-10	Logger 3: August 4-10	Logger 4: August 4-10	Logger 5: August 4-10	Logger 6: August 4-10	Logger 7: August 4-10
Mean: 13.3992613 Median: 13.425 Mode: 13.088 Maximum: 19.176 Minimum: 5.102 Stan Dev: 3.298017225	Mean: 13.55681845 Median: 13.534 Mode: 11.71 Maximum: 19.674 Minimum: 5.076 Stan Dev: 3.33967734	Mean: 13.31049702 Median: 13.546 Mode: 13.064 Maximum: 17.592 Minimum: 6.306 Stan Dev: 2.935779089	Mean: 13.73753869 Median: 13.882 Mode: 13.161 Maximum: 18.723 Minimum: 6.133 Stan Dev: 3.054783544	Mean: 14.43409524 Median: 14.685 Mode: 14.457 Maximum: 19.855 Minimum: 6.813 Stan Dev: 3.063077389	Mean: 13.92626786 Median: 14.17 Mode: 14.792 Maximum: 17.915 Minimum: 7.393 Stan Dev: 2.867603483	Mean: 13.70219643 Median: 13.75 Mode: 13.112 Maximum: 17.344 Minimum: 8.394 Stan Dev: 2.284001805
Logger 1: August 11-17	Logger 2: August 11-17	Logger 3: August 11-17	Logger 4: August 11-17	Logger 5: August 11-17	Logger 6: August 11-17	Logger 7: August 11-17
Mean: 11.55428923 Median: 12.025 Mode: 12.896 Maximum: 18.842 Minimum: 4.921 Stan Dev: 3.07433707	Mean: 11.71079445 Median: 12.11 Mode: 12.92 Maximum: 19.674 Minimum: 5.102 Stan Dev: 3.162599702	Mean: 11.55230893 Median: 12.11 Mode: 12.896 Maximum: 17.592 Minimum: 6.789 Stan Dev: 2.305779089	Mean: 11.8293119 Median: 12.2315 Mode: 13.666 Maximum: 18.723 Minimum: 6.133 Stan Dev: 2.676969726	Mean: 12.93691153 Median: 13.377 Mode: 14.266 Maximum: 19.439 Minimum: 7.242 Stan Dev: 2.552451978	Mean: 12.56009593 Median: 13.1 Mode: 13.642 Maximum: 17.915 Minimum: 7.645 Stan Dev: 2.279150512	Mean: 12.4512819 Median: 12.811 Mode: 13.257 Maximum: 17.344 Minimum: 7.896 Stan Dev: 1.993367915
Logger 1: August 18-27	Logger 2: August 18-27	Logger 3: August 18-27	Logger 4: August 18-27	Logger 5: August 18-27	Logger 6: August 18-27	Logger 7: August 18-27
Mean: 9.400773833 Median: 9.817 Mode: 9.608 Maximum: 15.963 Minimum: 4.889 Stan Dev: 2.922549471	Mean: 9.688925047 Median: 9.59 Mode: 6.509 Maximum: 17.058 Minimum: 4.973 Stan Dev: 3.118378702	Mean: 9.205877506 Median: 9.59 Mode: 7.645 Maximum: 13.401 Minimum: 5.745 Stan Dev: 1.948183231	Mean: 9.331657778 Median: 9.0025 Mode: 7.67 Maximum: 14.337 Minimum: 5.719 Stan Dev: 2.237887019	Mean: 10.97278714 Median: 10.516 Mode: 10.1 Maximum: 16.82 Minimum: 6.179 Stan Dev: 2.616486715	Mean: 10.39274501 Median: 9.977 Mode: 9.509 Maximum: 15.175 Minimum: 6.484 Stan Dev: 2.238103378	Mean: 10.483625989 Median: 10.112 Mode: 8.792 Maximum: 14.721 Minimum: -7.242 Stan Dev: 1.979195461