Using surficial geochemical methods to detect anomalies of ore indicator metals in a peat bog at McIlvenna Bay, Saskatchewan, Canada, as a method for blind VMS deposit exploration

M.Sc. Earth Sciences thesis

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Statement of Authorship

I hereby declare that the content of this Master's thesis has been composed largely by myself. Sampling was completed by myself with the assistance of GSC field technicians. Lab analyses were conducted at the GSC's Inorganic Geochemical Research Facility with some of the work being performed by myself. Data interpretation was carried out by myself. All references and information sources used within this thesis have been clearly indicated and acknowledged.

Abstract

Surficial geochemistry, particularly selective leach technology, has proven effective in revealing anomalous concentrations of ore indicator metals overlying zones of buried mineralization. This study focuses on the buried Zn-Cu-Au-Ag VMS deposit at McIlvenna Bay in the Flin Flon Greenstone Belt to determine whether the peat swamp at the surface contains any anomalies of ore indicator metals using simple surficial geochemical techniques. Three selective leaches were performed, ammonium acetate pH 5.0, hydroxylamine, and sodium pyrophosphate. The hydroxylamine leach, which selects for metals in the reducible phase often associated with Mn and Fe oxides, has the clearest anomaly for multiple metals observed simultaneously, at the greatest magnitude. The pyrophosphate leach, which selects for metals that are oxidizable, often associated with organics showed a clear anomaly only for Cu, despite the abundance of organic matter and its great affinity for binding metals, likely because the organic-metal complexes formed in this system are easily exchangeable and highly soluble, not allowing for the formation of clear anomalies. The use of selective leach technology on surficial soil or peat has shown to be effective for delineating ore indicator metal anomalies, giving surface projections of buried mineralization in various types of systems, as long as the dynamics of the system are well understood in order to determine the phase the metals are associated with.

Résumé

La géochimie de surface, tout particulièrement les extractions chimiques demeurent un outil efficace en exploration pour identifier des anomalies de concentrations de métaux générées par de la minéralisation en sous surface. Cette étude s'est intéressée à la minéralisation en sous surface de type « VMS » contenant du Zn-Cu-Au-Ag dans la baie de McIlvenna dans la ceinture de roches vertes de Flin Flon afin de déterminer si la tourbière située au dessus de la minéralisation contient des anomalies de concentration de métaux. Trois types d'extraction chimique ont été performées, soit l'acétate d'ammonium à pH 5, l'hydroxilamine et le pyrophosphate de sodium. L'extraction avec l'hydroxilamine, laquelle sélectionne pour les métaux associés aux oxydes de fer et de manganèse, a montré la plus forte anomalie de métaux. L'extraction au pyrophosphate, laquelle sélectionne pour les métaux associés à la fraction organique, a montré une anomalie pour le Cu seulement possiblement parce que les complexes métaux-organiques sont solubles. L'utilisation d'extractions chimiques demeure donc un outil d'exploration efficace tant et aussi longtemps que le dynamisme du système étudié est bien connu.

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1. Introduction

Canada is one of the leading mining countries in the world, making the industry of vital importance to the country's economy. Currently over 418 000 people across the country are employed in the mining and metals industry. Over the last 20 years, the mineral mining industry has contributed between 2.7% and 4.5% of the annual GDP. This figure rises to nearly 8% of the annual GDP when accounting for oil and gas extraction as well, and in 2012 amounted to $119 billion CDN (Mining Association of Canada, 2013). The search for new ore bodies continues in Canada with the use of various exploration techniques, which are described below.

1.1 Traditional VMS Exploration

Traditionally, the field of mineral exploration has depended on a geophysical tool called airborne electromagnetic survey, or AEM survey for short. AEM surveying involves attaching an electromagnetic sensor to a small aircraft that flies in parallel traverse, and perpendicular control lines, spaced about 200m apart (Palacky, 1993). This sensor collects the electromagnetic data, which allows a glimpse into the subsurface geology, which is extremely useful when searching for deeply buried, or blind, ore deposits.

The golden age of geophysical exploration of blind Volcanogenic Massive Sulfide (VMS) ore deposits in Canada lasted from the mid- 1950s to the 1980s (Witherly and Allard, 2011). VMS deposits in particular are easily recognized through the use of AEM technology because they are highly conductive, and over 60 of these deposits have been discovered by AEM survey in Canada alone (Palacky, 1993). The first new deposit to be discovered via AEM survey was located in Bathurst, New Brunswick, Canada (Hoffman and Woods, 1991; Palacky, 1993), and shortly thereafter, the world's richest massive sulfide deposit was discovered in Timmins, Ontario, Canada (Palacky, 1993). Since that time, the number of new deposits found by AEM

survey has dropped exponentially, and there are two main factors that are believed to contribute to the drastic decline of new discoveries (Witherly and Allard, 2011). First, AEM has discovered all the deposits that the technology allows, even with improvements to software and sensor capability, the remaining deposits are too small, or too deep to be detected. Second, a deposit's surroundings can have a dramatic effect on their ability to be seen by AEM survey. For example, if a VMS deposit is housed in a mafic, plutonic setting, its signal may not stand out strongly as it would in a sedimentary environment. Graphite, in particular, has an EM signal that overlaps the usually distinct signal of a VMS deposit (Palacky, 1993), resulting in a false positive. Conductive overburden can also mask an EM signature from a blind VMS deposit, especially clay-rich structures (Palacky, 1993).

Whether AEM technology has reached its limit, or whether it can still be improved to search deeper in the earth's crust, the field of mineral exploration can no longer depend solely on geophysical techniques to discover new, economical ore deposits, and must turn to alternate methods of detecting blind ore.

Large portions of Canada are covered by bogs, peatlands, swamps, fens, and other organic-rich wetland settings. Wetlands are often referred to as "geochemical sieves" due to the high cation exchange capacity of organic ligands, and their ability to immobilize metals that are introduced into the environment. When ore bodies are buried below such environments, the metals contained in the ore become mobilized, migrate upwards through advection, and if they come into contact with the organic overburden, they can become trapped there, essentially recording a signature of the buried ore. This theoretical process opens the door to the use of surficial geochemistry as a tool for blind ore body exploration.

1.2 Formation of Geochemical Anomalies

In order for a geochemical anomaly to form in surficial sediments, there must exist a mode of upward migration of metals from the ore body to the surface. Sato and Mooney (1960) showed that sulfide ore bodies create a self-polarization, with a low Eh region at depth, and higher Eh at the surface, thus creating a potential gradient that will stimulate ion movement. Simple chemical diffusion along a concentration gradient from the near-surface end of an ore body has been proposed as a means of creating a surficial signature of the ore, however calculations showed that it is too slow of a process to allow an anomaly to be seen in overburden more than approximately 3m thick in the 8000-12000 years since deglaciation (Hamilton, 1998; Smee, 1983). Smee (1983; 1998) showed that H^+ ions could migrate upwards through 10-20m of fine grained overburden in that time period, however it was later shown that pH of the soil alone, does not provide a definitive ore signature (Mann et al., 2005; Smee 1998).

Over the last few decades, several explanations for the origin of the geochemical anomalies observed over mineralization zones have been proposed. Some suggestions, such as upward migration of metals attached to carrier gases (Malmqvist and Kristiansson, 1984; Xie et al., 1999), or the presence of "fast ions" that outpace chemical diffusion (Goldberg, 1998), are largely viewed as unlikely, or possible only in arid environments (Mann et al., 2005). Others, such as advective flow, have been able to explain anomalies seen at the surface, but are only applicable in very rare, or unique cases, such as in the case of a heavily fractured overburden, an earthquake-stricken zone, or a system that is prone to frequent heavy flooding (Cameron et al., 2004).

The dominant cause of the upward migration of metals from the ore body to the surface has been studied and argued in the literature, with no apparent cogent conclusion (Cameron et al., 2004; Hamilton, 2007; Mann et al., 2005). For the majority of blind ore bodies, any surface

anomalies present are likely caused by a combination of processes, although the origin of these processes goes back to the model of self-polarization mentioned above, put forth by Sato and Mooney (1960). The earliest models for upward migration were based on diffusion of ions, enabled by the potential gradient that results from self-polarization of the deposit (i.e. Govett, 1976). These models suggest that a zone of cation excess is developed on either side of the upper portion of the ore body, and from these zones of high concentration, the cations begin to diffuse upward through the overburden, creating a "rabbit-ear" anomaly at the surface, above the zone of mineralization (Cameron et al., 2004; Govett, 1976; Hamilton, 1998; Mann et al., 2005, Smee 1983). This approach was developed based on relatively shallow deposits, with up to about 5m of overburden (Govett, 1976; Smee, 1983). For deposits that have a thicker, glaciolacustrine overburden, Smee (1983) calculated that sufficient time has not passed for an anomaly in ore indicator metals to be detected at the surface. Despite those findings, many studies have detected anomalous concentrations of indicator metals at the surface in settings with tens of metres of overburden (i.e. Bajc, 1998, Leslie et al., 2013), insinuating that there is more than diffusion of charged species involved in the formation of these anomalies.

Hamilton (1998, 2007) had outlined another type of gradient that allows for the transport of ore metals to the surface, again based upon the self-polarization of sulfide deposits (Sato and Mooney, 1960). The high Eh zone created around the top of the deposit quickly consumes the oxidizing agents in the overburden, creating a negative redox anisotropy directly above the deposit. This anisotropy allows reduced species to migrate upward, away from the deposit, at a rate far exceeding that of simple chemical diffusion. This process continues to propagate, creating a reduced column above the deposit until a continuous source of oxidants is reached, which in surficial environments, is often the water table (Hamilton, 1998). The rate at which

indicator metals from the deposit can be transported via this redox anisotropy is fast enough to create a detectable apical anomaly at the surface, even through thick (>20m) glacial overburden that covers the majority of the Canadian landscape (Cameron et al., 2004; Hamilton, 1998; Hamilton, 2007). Redox gradient transport is perhaps the most popular theory today explaining the presence of surficial geochemical anomalies overlying deposits buried beneath thick glacial overburden, since it addresses the restrictions of many of the other theories that have been postulated (Hamilton, 2007), not only does it account for the young age of the anomalies, it also provides a model which results in a more commonly observed apical anomaly, as opposed to the dual "rabbit-ear" anomaly.

1.3 Use of Selective Leach in Detection of Soil Anomalies

Selective leaching is the most frequently used geochemical method in detecting surficial anomalies indicative of buried mineralization (Cameron et al., 2004). Selective leaches aim to dissolve only mobile, exogenic components of a soil sample, which is especially useful in Canadian terrains where the soil is of glacial origin and is not chemically related to the underlying bedrock and mineralization (Hamilton, 2007). The concept of selective leaching soil samples for exploration purposes has been around for many years, though with recent advancements in detection limits, sampling techniques, and reduced cost of analysis, interest has been rekindled in using selective leaching as a prospecting tool (Hall, 1998; Mann et al., 2005).

Originally, strong acid digestions that dissolve nearly the total soil sample were employed to search for anomalous concentrations of metals (Mann, 2010). While this did prove to be successful in some cases, near-total digestions are not the best method of detecting signatures of mineralization because the whole soil sample is dissolved, if the soil is naturally high in metals, an anomaly could potentially be lost in the noise (Goldberg, 1998; Kelly et al.,

2003). The metals that contribute to an ore body signature can be considered to be exogenic to the soil, particularly in Canada where the soils have been transported by glaciers to their current location. The implication of this is that the ore metals in surficial samples would be present in mobile, or labile forms, or incorporated into secondary minerals, thus making them extractable by a weaker digestion than aqua regia, or other strong acid digestions (Cameron et al., 2004; Hall, 1998; Hamilton 2007; Mann, 2010).

Selective and sequential extractions are being used more and more instead of aqua regia, and other near-total digestions to identify anomalous metals in surface environments due to improvements in ICP-MS detection limits and increased commercial availability (Hall, 1998; MacFarlane et al., 2005; Mann, 2010). The aim of selective leaching is to perform ligand-based extraction of metals from a bulk soil sample, in order to discover how the metals are being partitioned as they are incorporated into the surface environment. This is done based on the theory that specific analytes will dissolve specific minerals, liberating the metals that are associated with that mineral phase (Hall, 1998). In reality, issues pertaining to non-specificity of analytes, different mineral phases existing together as colloids, and re-adsorption during analysis complicate matters, and the different phases liberated by each analyte are often referred to as "operationally defined" as opposed to being associated to a specific type of mineral (Filgueiras et al., 2002; Hall, 1998; MacFarlane et al., 2005). The operationally defined phases (Table 1) that are selected for in mineral exploration are "soluble in water and weak acid or labile", "exchangeable or associated with carbonates", "reducible or associated with Fe/Mn oxides", "oxidizable or associated with organic matter and sulfur", and "residuals or associated with silicates" (Filgueiras et al., 2002). Depending on the soil medium being analyzed, specific phases can be selected for using the associated analyte, or several phases can be tested for sequentially,

beginning with the "weakest" analyte (most labile phase) and ending with the "strongest" (most tightly bound) (Filgueiras et al., 2002; Hall, 1998; MacFarlane et al., 2005; Mann, 2010).

Table 1. Selective leach analytes and their associated operational definition and generally associated mineral form

Analyte	**Operational Definition**	**Associated Mineral Form**
Ammonium Acetate pH 5.0	Exchangeable	Carbonates
Hydroxylamine	Reducible	Mn and Fe oxides
Na- Pyrophosphate	Oxidizable	Organics and Sulfur
Aqua Regia	Residual	Silicates

Many studies are beginning to emerge that demonstrate the usefulness of using selective or sequential leaches as opposed to the traditional near-total digestions. Several notable examples are presented by Mann (2010). The first example is from the Green Tree Frog Prospect, in Queensland, Australia. In this case, selective leaching improved the resolution of the surficial metal anomaly not only in amplitude, but also spatially, thus reducing the area targeted for drilling (Mann et al., 2005). A second example comes from the LEFA Gold Corridor in Guinea, West Africa where conventional geochemistry was able to locate a broad area of anomalous metals, but extensive drilling was unable to locate a source deposit (Mann, 2010). A selective leach approach was later applied, and the previously known Folokadi deposit was clearly delineated in the resulting data, along with a previously undiscovered secondary deposit to the southwest of the original one. Since the original, conventional survey was conducted, five new deposits of economic values have been discovered in the area (Mann, 2010). At Cross Lake, in the Abitibi belt of Canada, both aqua regia and weak selective extractions were performed initially with no anomalous concentrations of metals emerging from the background, over a

known VMS deposit (Hamilton et al., 2001). A secondary survey, performed a year later was also subjected to a strong selective leach, in which a strong anomaly became apparent over the zone of mineralization, particularly in the Zn dataset (Mann, 2010). More recently, a soil survey has been conducted over the Talbot prospect in Manitoba, Canada (Leslie et al., 2013; van Geffen et al., 2012). Various selective extractions were applied, and Zn emerged again as displaying the greatest anomaly (Leslie et al., 2013). In addition to Zn, other indicator metals such as Fe, Co, Mo, Al, Cd, Cr, Hg, Ni and Pb all showed positive anomalies over the mineralization, and K, Sr, Cu, Mg and Na all showed a negative anomaly over the deposit (Leslie et al., 2013). It is clear that selective leaching is a valuable exploration tool, and it is necessary to apply varying strengths of leach in order to discover an anomaly as various locales will have different deposit ages and soil mineral compositions.

1.4 Thesis Objectives

This thesis aims to characterize the geochemistry of ore indicator metals in a peat bog overlying the McIlvenna Bay Zn-Cu-Au-Ag VMS deposit in the Flin Flon Greenstone Belt in Manitoba, Canada. This includes exploring the dynamics of aqueous phase versus solid phase partitioning of metals, as well as any anomalies in relation to the underlying VMS ore body. These dynamics and anomalies will be evaluated in their potential for future mineral exploration in similar environments.

Based on previous studies that have used selective extraction techniques for geochemical exploration, it is hypothesized that Zn will display a strong positive anomaly above the zone of mineralization, in addition to less pronounced positive anomalies from other indicator metals such as Fe, Cd, Ni, and Pb. Several other indicator metals, such as Cu and Mg may show a negative anomaly over the deposit, and will be tested for. Due to the high organic content of the

sampling zone, and the high binding potential of organic ligands to metals, it is also hypothesized that the pyrophosphate extraction, which selects for the oxidizable fraction of the soil (associated with organics), will contain the greatest anomalous concentrations of indicator metals over the deposit.

2. Site Description and Sampling Locations

2.1 Study Site

The site chosen for this study centers around the buried McIlvenna Bay Zn-Cu-Au-Ag VMS (Volcanogenic Massive Sulfide) deposit, located in the Flin Flon Greenstone Belt in east central Saskatchewan (Figure 1). "Base camp" was set up at the exploration camp of Foran Mining's McIlvenna Bay project, accessible from the Saskatchewan Provincial Highway #106 gravel road.

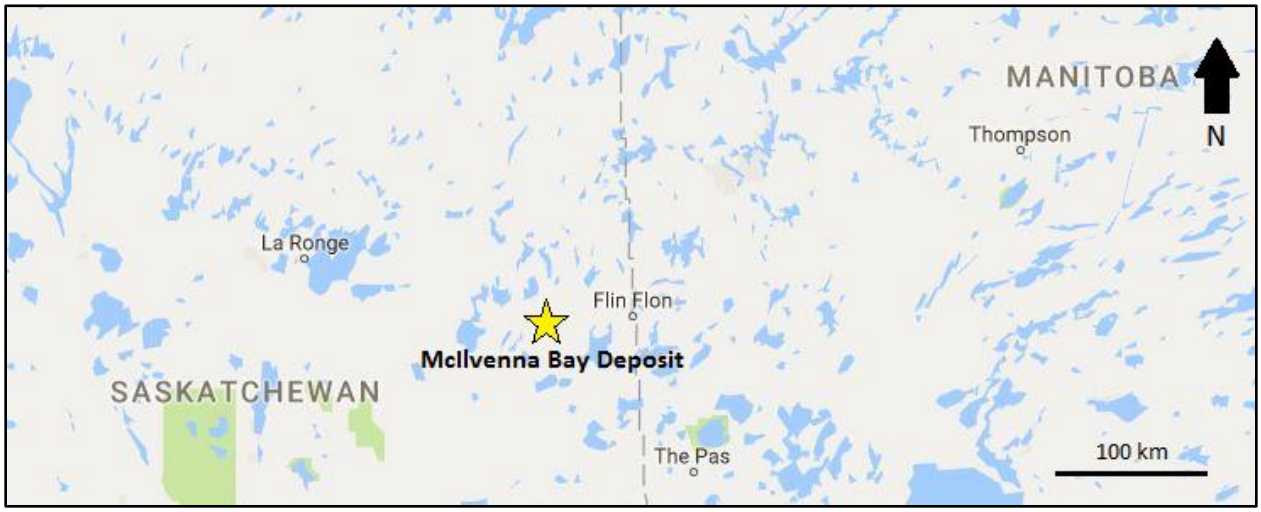


Figure 1. Map of Manitoba and Saskatchewan showing the location of the McIlvenna Bay Deposit relative to Flin Flon, MB (modified from www.google.ca/maps)

2.2 Regional Geology

The McIlvenna Bay Deposit is housed in the Hanson Lake Block on the western edge of the Flin Flon Greenstone Belt. The Flin Flon Greenstone Belt is a steeply dipping

paleoproterozoic formation that runs from north central Manitoba to east central Saskatchewan and contains one of the world's most important paleoproterozoic VMS mining camps. At the McIlvenna Bay site these crystalline basement rocks are covered by approximately 10m of Ordovician sandstone, another 10m of Ordovician dolostone, and finally approximately 2m of glacial till and peat (Figure 2)

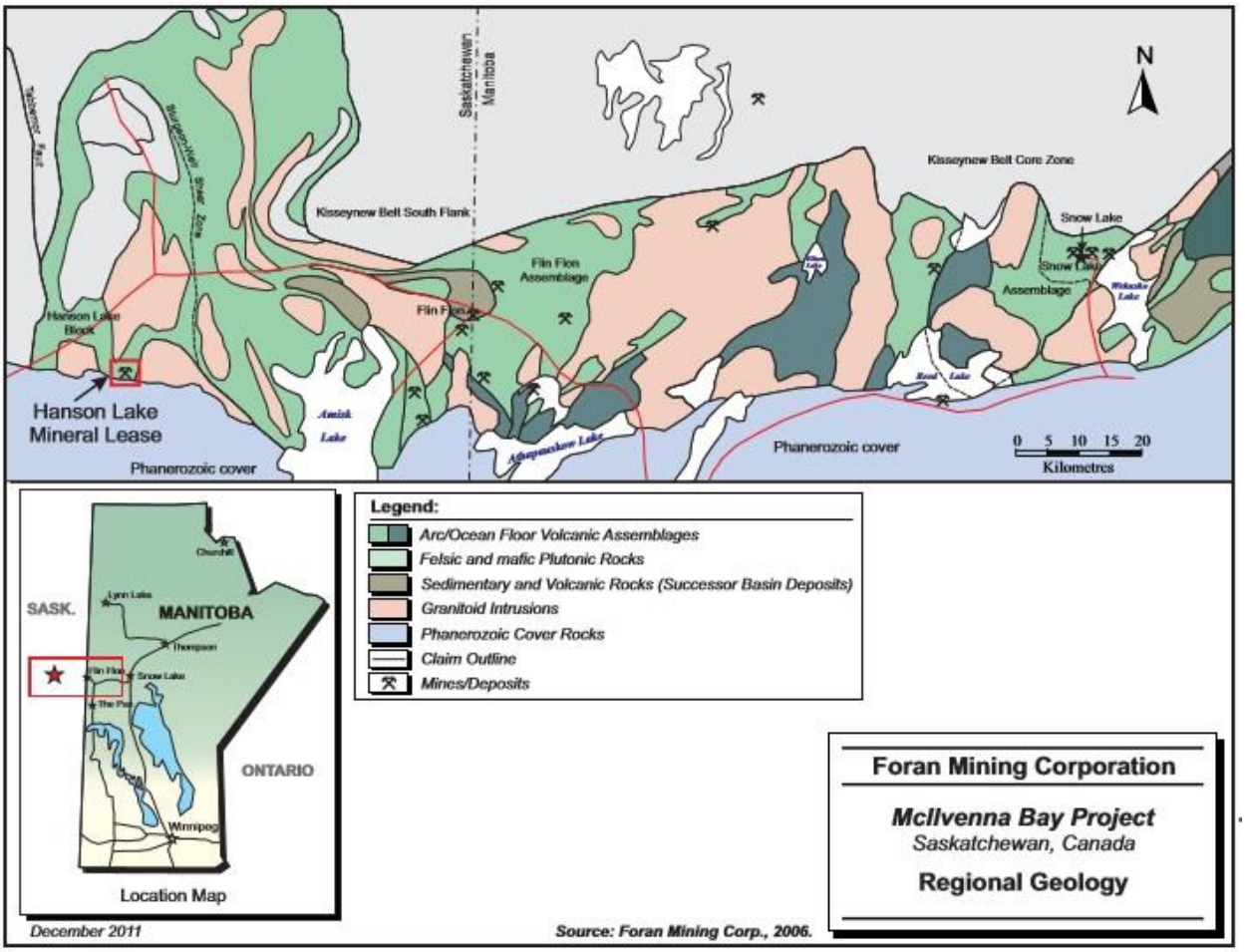


Figure 2. Regional geology of the Flin Flon Greenstone Belt showing the location of the Hanson Lake Mineral Lease which includes the McIlvenna Bay deposit at its southern edge (Foran Mining Company, 2006).

2.3 Site Description

According to the Canadian Wetland Classification System (Zoltai and Vitt, 1995), the surficial environment sampled in this study lies on the gradient between a swamp and a bog,

combining characteristics of both as a peatland. The ground cover is dominated by Sphagnum moss which is typical of a bog, though with horsetails and interspersed with spruce trees, which are more commonly found in swamps. Water inputs at this site are both atmospheric, and from groundwater. The accumulation of peat at this site is approximately 160 cm at its deepest point, and the water table lies 1-2 cm below the surface created by the Sphagnum cover.

The topography of the site is fairly flat with an elevation of 325m above sea level, with general drainage of the area moving north towards Hanson Lake, which lies at an elevation of 318m above sea level.

2.4 Sampling Locations

The area surrounding the sampling site was divided into a grid by Foran Mining, the exploration company that owns the property (Figure 3). Sampling was performed in two parallel transects of the Foran grid that cross the surface projection of the ore body perpendicularly. Line 10100E and Line 9950E (Figure 3) were chosen in order to capture wetland that overlies the ore body and stretches far enough from the buried ore that its effects are no longer observed at the surface. Sampling locations were chosen every 25 m from the north end of the wetland to the south end, beginning proximal to the ore, and ending distal to it. At each location, water samples were taken at the surface, 50 cm, and 100 cm where possible. Peat cores were taken at each sampling location, divided into 5-10 cm sections, and analyzed in sections corresponding to the water samples taken from each site.

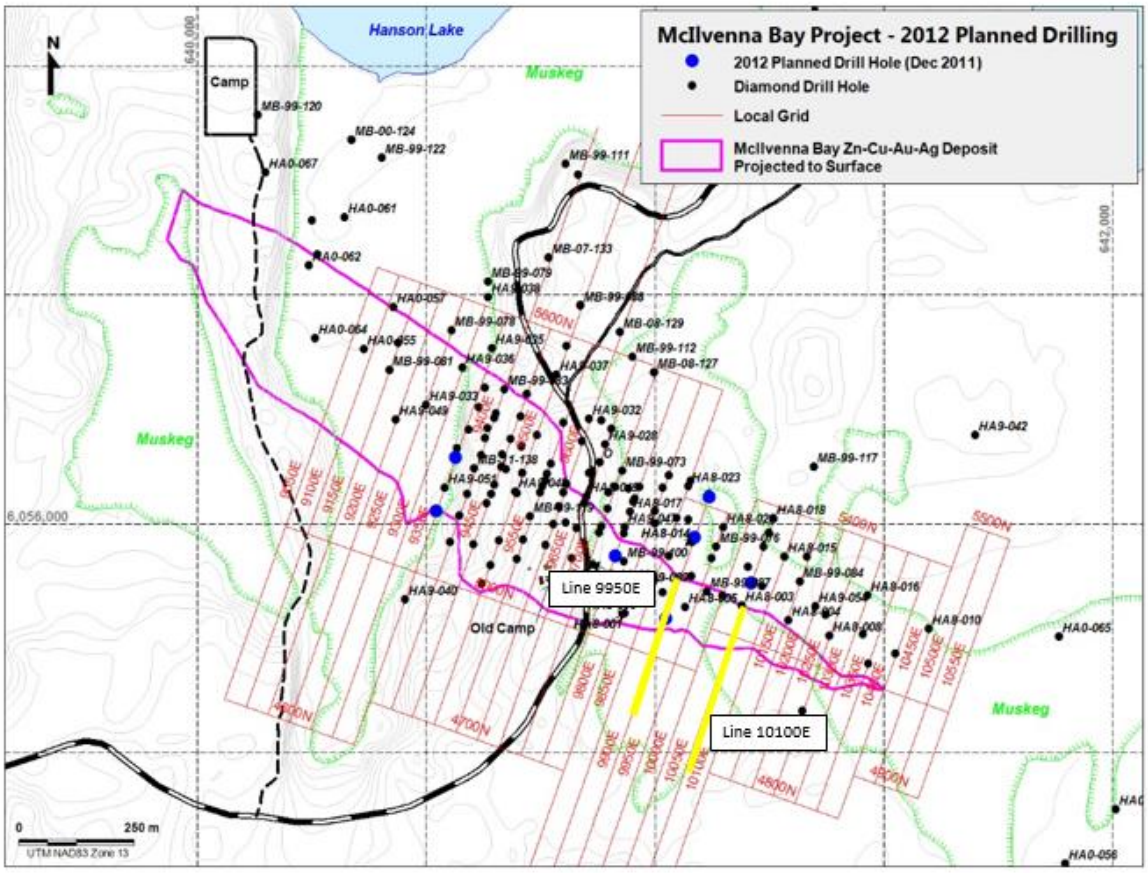


Figure 3. Map of drill grid of study site modified from Foran Mining Corp. The surface projection of the ore body is outlined in purple and the two transects sampled (10100E and 9950E are highlighted in yellow.

3. Methodology

3.1 Sample collection

3.1.1 Water sample collection

Water samples were collected at each location for total element and anion analyses. The below the surface samples were collected using a piezometer pushed into the peat as a sample well at the desired depth, and a peristaltic pump. All samples were syringe-filtered to 0.45µm to remove all particulate matter and were collected into HDPE bottles. Upon return to base camp, all water samples were preserved using 1% high purity nitric acid and stored in coolers until

being refrigerated after their return to the laboratory in Ottawa. Water samples for DIC/DOC analysis were collected and syringe-filtered into amber bottles which were also stored in coolers and refrigerated upon their return to the laboratory.

To ensure quality assurance and quality control, all syringes and sample bottles were rinsed three times with water from the sampling location, and the first few drops of filtrate were discarded. Travel blanks were also collected each day of sampling using reverse osmosis deionized (RO-DI) water from the laboratory in Ottawa and were acidified in the field.

3.1.2 Peat sample collection

The full peat profile (up to 120cm) at each sampling location was collected using a 5cm by 5cm, stainless steel Wadenaar peat-borer. These profiles were divided into 5-10cm sections in the field using a clean spatula and stored in individual plastic bags. Upon return to the laboratory in Ottawa, the sections of peat corresponding to the depth of the water samples at each site were selected, sub-sampled and placed into falcon tubes using a scoopula cleaned with RO-DI water, and freeze-dried for further analysis. All samples were stored in the dark prior to freeze drying.

3.2 *In Situ* Measurements

Temperature (°C), ORP (mV), conductivity (µS/cm), Eh (mV) and pH measurements were taken at each sampling depth at each location using a YSI multiprobe. Alkalinity strips were used to estimate alkalinity (ppm $CaCO_3$) of samples until laboratory measurements could be taken. Reduced Manganese (Mn(II), ferrous iron (Fe(II)) and sulfide were measured colorimetrically (mg/L) on a HACH field colorimeter.

3.3 Laboratory Methods

3.3.1 Water Geochemistry

All water samples were analyzed at the Geological Survey of Canada Inorganic Geochemical Research Laboratory (GSC IGRL) in Ottawa. Major element analysis was performed using inductively coupled plasma optical emission spectrometer (ICP-OES) (Spectro Arcos). Trace metal analysis was performed using an inductively coupled plasma mass spectrometer (ICP-MS) (Thermo X Series 2). Rhodium and Iridium were used as ICP-MS internal standards. Full details of the accuracy and precision methods used in ICP-MS analysis are outlined in Hall et al. (1996). Ion chromatography (Dionex 600) was used to analyze major anions (F, Cl, SO_4, Br, NO_3, and PO_4).

Thermodynamic Modelling

The geochemical program PHREEQc-I (Version 3.0, Parkhurst and Appelo, 1999) was used to determine the aqueous speciation and saturation indices of mineral precipitates that could be expected if the peat bog were at geochemical equilibrium. The solution composition (determined by ICP-MS/ICP-OES) and parameters (determined by *in situ* field measurements, or calculated from either solution composition or field measurements) were input and simulations run for the entire range of sampling locations and depths.

3.3.2 Peat Geochemistry

The freeze dried peat samples previously selected for their correspondence to water sample depths were sieved to 2mm in order to homogenize the samples and remove any large plant and root debris. Triplicates of each sample were weighed to 0.5g in new polypropylene centrifuge tubes. A set of three standard procedure selective leaches (Hall, 1998) were then performed on the set of triplicate samples, each followed by aqua regia to determine the partitioning of ore indicator metals within the peat. An ammonium acetate pH 5.0 leach was first performed using 0.5g of sample to 20mL 1.0M reagent to release the labile, easily exchangeable,

and carbonate bound metals. On a replicate set of samples, a cold hydroxylamine leach (0.5g sample and 20mL 0.25M reagent), followed sequentially by a hot hydroxylamine leach (residue from cold hydroxylamine leach and 30mL 1.0M reagent to ensure complete dissociation of manganese and iron oxides) was performed. Finally, on the third set of samples, a sodium pyrophosphate leach was performed using 0.5g sample and 40mL 0.1M reagent. As mentioned above, each of these selective leaches were followed with an 8mL aqua regia, which were compared to ensure homogeneity of sample sets.

4. Results

4.1 Water Chemistry

4.1.1 Physicochemical parameters

Two separate transects (Figure 3) were sampled across the field site at the surface (0cm), mid-way through the peat profile (50cm), and at the sediment-peat interface (100cm), where possible.

The pH at all sampling locations was slightly acidic to circumneutral, ranging from a minimum of 5.8 to a maximum of 6.9. There was little variation in pH between the surface and at depth, although there was a slight decrease from an average of 6.5 to an average of 6.3 (Table 2). The Eh values (Table 2, corrected for standard hydrogen electrode (SHE) and temperature) indicate that the surface waters were slightly more oxic than the pore waters at 50 or 100cm. The average temperature was 13°C, fluctuating slightly depending on the time of day. Conductivity measurements showed that more dissolved solids were present at depth than at the surface (Table 2).

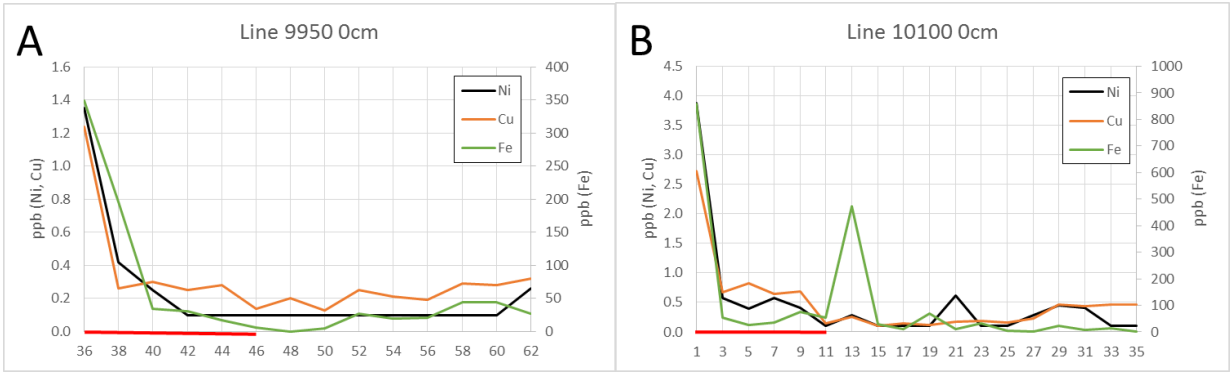
Table 2. Average values across both transects of the measured thermodynamic properties with depth of peatland.

Depth (cm)	pH	Eh (mV)	Conductivity (µs/cm)
0	6.55	381	130
50	6.26	353	151
100	6.29	302	250

4.1.2 Indicator Metal Geochemistry

In the aqueous phase, Ni, Cu, Cd, Fe, Pb, Zn and Mg were analyzed for anomalous concentrations or patterns relative to the buried mineralization. Mg did not display discernible patterns relative to the buried mineralization (Figure 4). Ni, Cu, Cd, Fe, Pb and Zn displayed anomalous concentrations with varying magnitudes overlying the buried zone of mineralization and could be split into two similar, but distinct patterns. Ni, Cu, and Fe displayed a sharp peak over the ore body at the surface of both transects, while Cd, Pb, and Zn showed a broader peak (Figure 5). At a depth of 50cm, the peaks were still discernible, though less clear, particularly in line 9950 (Figure 6). At a depth of 100cm there was no visible anomaly overlying the buried mineralization or otherwise (Figure 7).

Figure 4. Concentration of Mg across both sampled transects at 0 cm (A and B), 50 cm (C and D) and 100 cm (E). There is no clear anomaly in Mg concentration related to the buried mineralization, the surface projection of which is denoted by the red bar, versus the concentrations observed in the peatland distal to the mineralization.



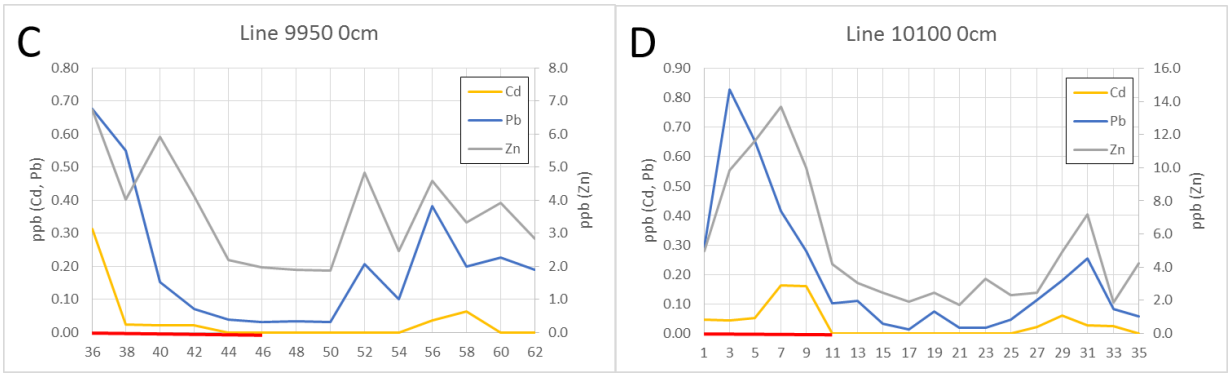


Figure 5. The surface waters show two distinct patterns of base metal concentrations. Ni, Cu, and Fe all display a sharp peak over the surface projection of the buried mineralization (denoted by the red bar) for both transects (A and B). Cd, Pb, and Zn show a broader peak (C and D). All the metals have an evident anomaly over the mineralization relative to the peat that lies distal to the mineralization though the magnitude varies for each metal.

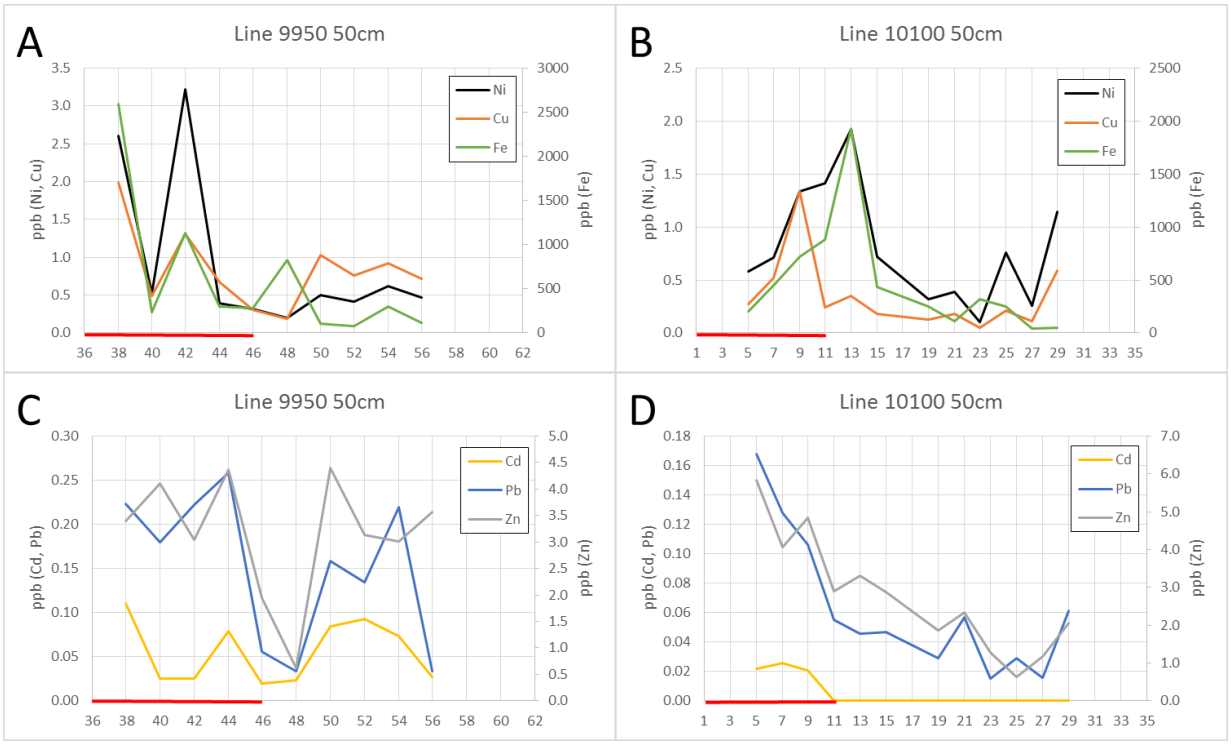


Figure 6. The pore water metal concentrations midway down the swamp profile (50cm) show a spike over the buried mineralization (denoted by the red bar), although it is not as clear as in the surface water. In line 9950 (A and C) the concentration anomaly is much more clouded than at the surface, particularly for Cd, Pb, and Zn. The spikes are broader in line 10100 (B and D) than they were at the surface.

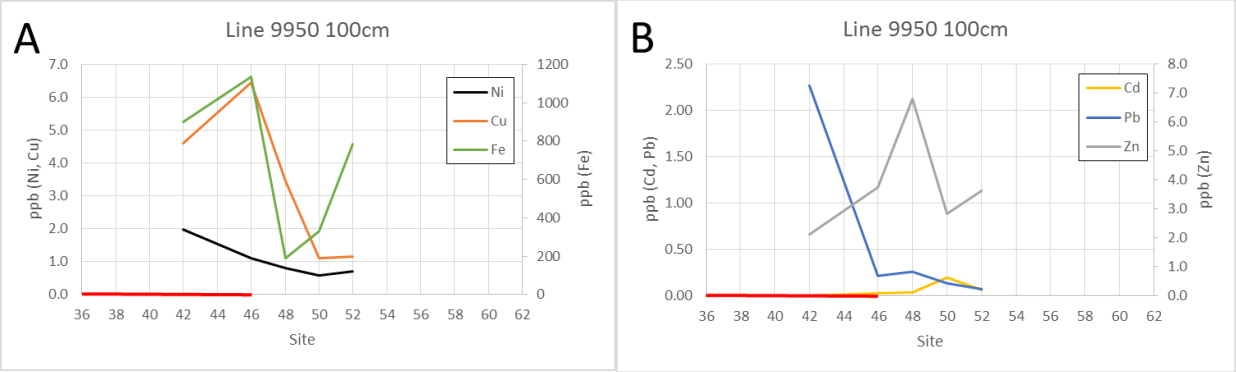


Figure 7. At the swamp-till interface (100cm) there is no longer any clear concentration anomaly for either Ni, Cu, and Fe (A) or Cd, Pb, and Zn (B) relative to the buried mineralization (denoted by the red bar).

4.2 Thermodynamic Modelling

4.2.1. Program Parameter Inputs

Most of the parameters for PHREEQc-I were inputted directly from the primary measurements taken at the site, with two exceptions. The organic content of a site is usually characterized by the DOC, however in an environment such as a peat bog where there is such an abundance of organic carbon that lies outside the dissolved range, this measurement was left out of the program, and organic carbon content of the system was allowed to be calculated by the program.

The oxygen redox potential (ORP) on the other hand is usually determined to be controlled by one or more other parameters, and in this case was found to be related to Fe^{2+} and depth (Figure 8). The correlation between Fe^{2+} and ORP was calculated at each sampling depth, and the Fe^{2+} values were modified accordingly and entered into the program to be used as the ORP value.

4.2.2. Program Output Models

Several common, characteristic minerals were chosen to be examined in the PHREEQc-I output models in order to determine the likelihood of ore metal association to these mineral types during selective leaching (Table 3). Calcite and dolomite were chosen as the representative carbonates, ferrihydrite, and magnetite were chosen as the representative iron oxides, manganite was chosen as the representative manganese oxide, and halloysite was chosen as the representative alluminosilicate.

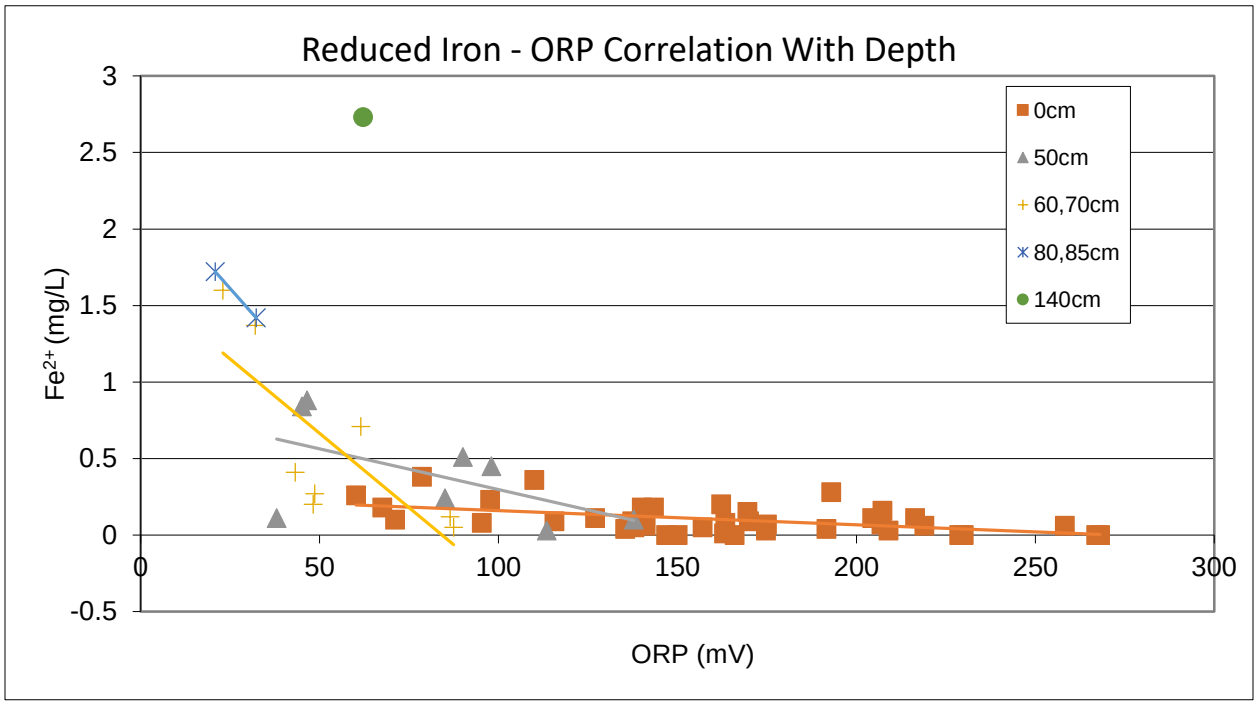


Figure 8. The relationship between reduced iron (Fe^{2+}) and ORP varied with the depth of sampling site. This relationship was used to calculate ORP values for input to PHREEQc-I program.

Table 3. Average saturation index for each representative mineral chosen for both sample lines at each sample depth

	Line 10100 0cm	Line 9950 0cm	Line 10100 50cm	Line 9950 50cm	Line 10100 100cm	Line 9950 100cm
Calcite $CaCO_3$	-2.03	-2.03	-2.19	-2.16	-1.71	-1.67
Dolomite $CaMg(CO_3)_2$	-4.15	-4.12	-4.51	-4.4	-3.6	-3.59
Ferrihydrite $Fe(OH)_3$	0.7	0.76	-0.03	1.07	0.53	1.84
Halloysite $Al_2Si_2O_5(OH)_4$	-0.57	-1.09	-0.16	0.09	1.8	0.63
Hematite Fe_2O_3	14.2	12.7	13.9	14.1	15	16.5
Magnetite Fe_3O_4	11.6	11.1	11.4	13	13.7	14.7
Manganite MnOOH	-4.01	-3.92	-6.45	-4.86	-6.71	-4.09

The saturation indices of the chosen minerals did not vary greatly across both sample lines, or by depth (Figure 9). The saturation indices in the zone above the buried ore were not notably different than outside the zone above the buried ore.

The system is supersaturated with respect to magnetite, and ferrihydrite remains just around the saturation point. This is expected, as magnetite is the more stable iron oxide mineral. With more than one form of iron oxides predicted to be at or above saturation in the system, it is likely that the hydroxylamine leach, which selects for metals associated with manganese- and iron- oxides will yield a high concentration of ore indicator metals.

Calcite and dolomite are under saturated in the system, which is not surprising given the slightly acidic pH. Despite the layer of dolomite buried below the peat swamp, the saturation indices show that the ammonium acetate leach, which selects for metals associated with carbonates will likely yield lower concentrations of ore indicator metals than other leaches.

Manganite lies far below the saturation line, it is unlikely to play a large role compared to other mineral phases in this system, although it is known to behave in a similar manner to iron oxide minerals, and may contribute to ore indicator metals associated with the hydroxylamine leach.

Halloysite was predicted to remain saturated throughout the system, which is common for such a stable alluminosilicate. This expected saturation will likely yield some ore indicator metals from the aqua regia which will dissociate the strongly bound metals, associated with silicate minerals.

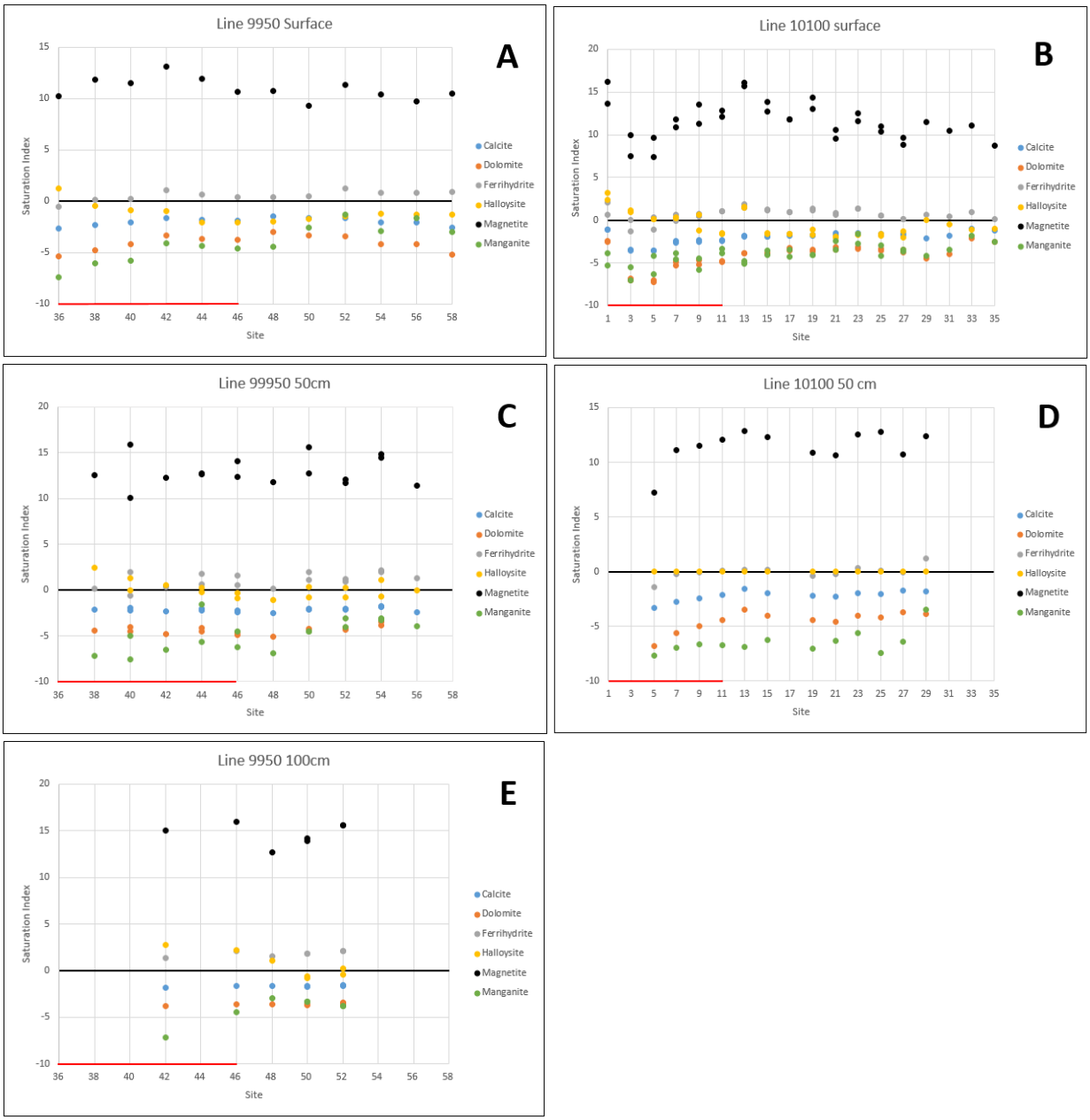


Figure 9. Saturation indices of calcite, dolomite, ferrihydrite, magnetite, manganite, and halloysite across both sampling lines and all sampling depths remain fairly consistent and do not appear to vary in the zone overlying the buried ore (represented by red bar).

4.3 Selective Leaches

In the peat phase, As, Ni, Cu, Cd, Fe, Pb, Zn and Mg were analyzed for anomalous concentrations or patterns relative to the buried mineralization in three selective leaches. First an ammonium acetate leach at pH 5.0 was done to extract the ore indicator metals that are labile,

easily exchangeable, or associated with carbonates. Second, a hydroxylamine leach was done to extract the ore indicator metals that are reducible or associated with Fe/Mn oxides. Third, a sodium pyrophosphate leach was performed to extract the ore indicator metals are oxidizable or associated with organics and sulfur.

4.3.1 Ammonium Acetate pH 5.0 Leach

The ammonium acetate pH 5.0 (AA5) leach did not yield any anomalous patterns of ore indicator metals relative to the buried mineralizaion (denoted by the red bar in Figure 10) at the surface of either sampling line (Figure 10).

At a depth of 50cm, there are clear peaks of ore indicator metal concentrations overlying the buried ore (Figure 11). Line 10100 shows a sharp increase at the edge of the surface projection of the ore (Figure11 B), while line 9950 shows a broader increase from the border of the surface projection of the ore towards the middle (Figure 11 A). Line 9950 seems to show the same pattern at a depth of 100 cm as it does at 50 cm (Figure 11 C) although a lack of available sampling points towards the middle of the ore surface projection makes this unclear.

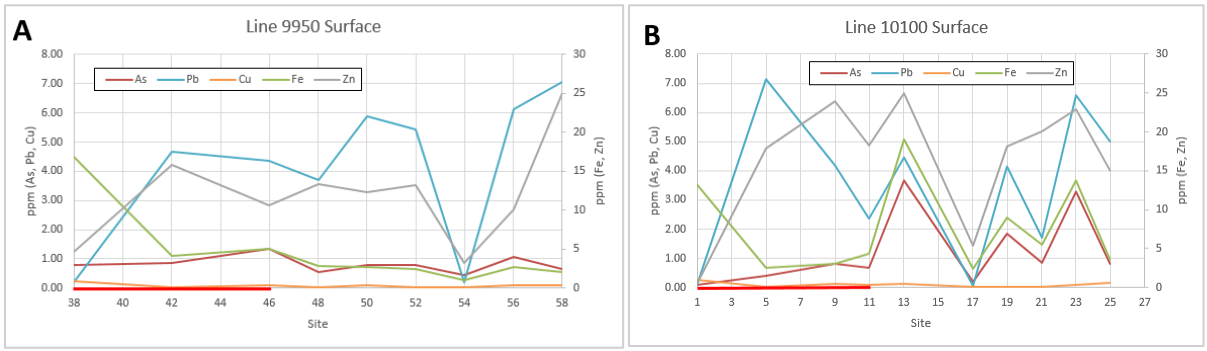


Figure 10. Ammoinum acetate pH 5.0 leach of surface samples does not show any distinct anomaly of ore indicator metal concentrations over the buried mineralization.

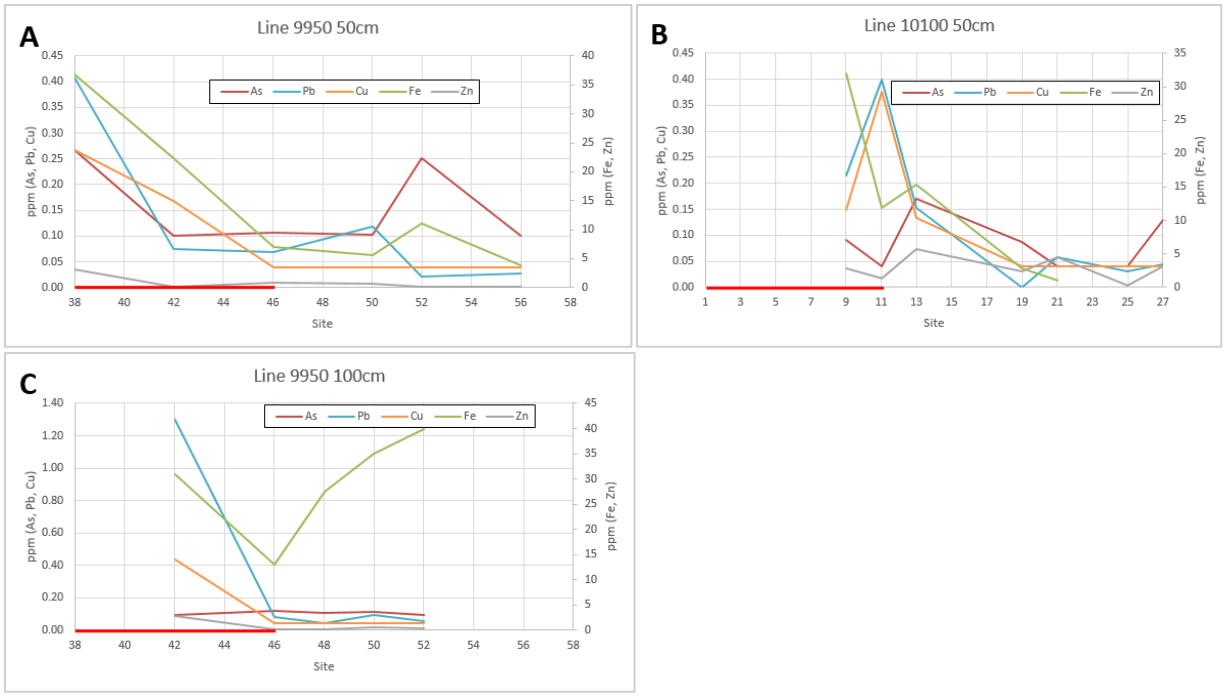


Figure 11. Ammonium acetate pH 5.0 leach shows broad peak of ore indicator metals over buried ore (represented by red bar) at both 50cm (A) and 100cm (C) in line 9950 and a sharp peak of ore indicator metals over the buried ore at 50cm (B) in line 10100.

4.3.2 Hydroxylamine Leach

Compared to the AA5 leach, the hydroxylamine leach shows a slight anomaly of Cu, Fe, and Ni above the buried ore in the surface samples, although it is not well defined, particularly in Line 9950 (Figure 12)

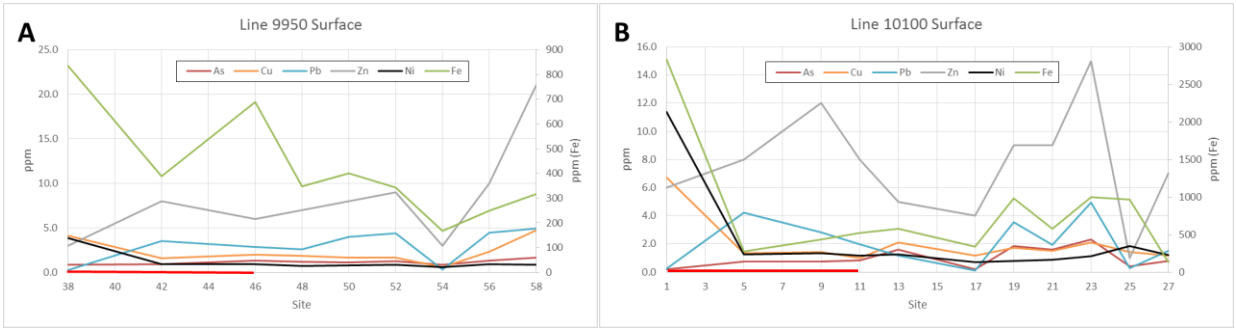


Figure 12. Hydroxylamine leach results from the surface samples show a slight anomaly overlying the buried ore (denoted by the red bar) in Cu, Fe, and Ni, particularly in Line 10100 (B), less so in line 9950 (A) though the anomaly is less clear than it is at depth.

Similarly to the AA5 leach, there is a visible anomaly at the 50cm depth in all the tested metals, excepting As (Figure 13). Also as with the AA5 leach at 50cm, line 9950 shows a very broad peak of concentrations over the buried ore (Figure 13 A) and line 10100 shows a sharp peak on the edge of the surface projection of the buried ore (Figure 13 B).

At a depth of 100cm the hydroxylamine leach shows a broad peak in line 9950 as with the 50cm depth and slightly more defined than the corresponding AA5 leach (Figure 13 C).

The hydroxylamine leach shows extremely similar patterns to the AA5 leach, though at a greater magnitude for every metal tested for.

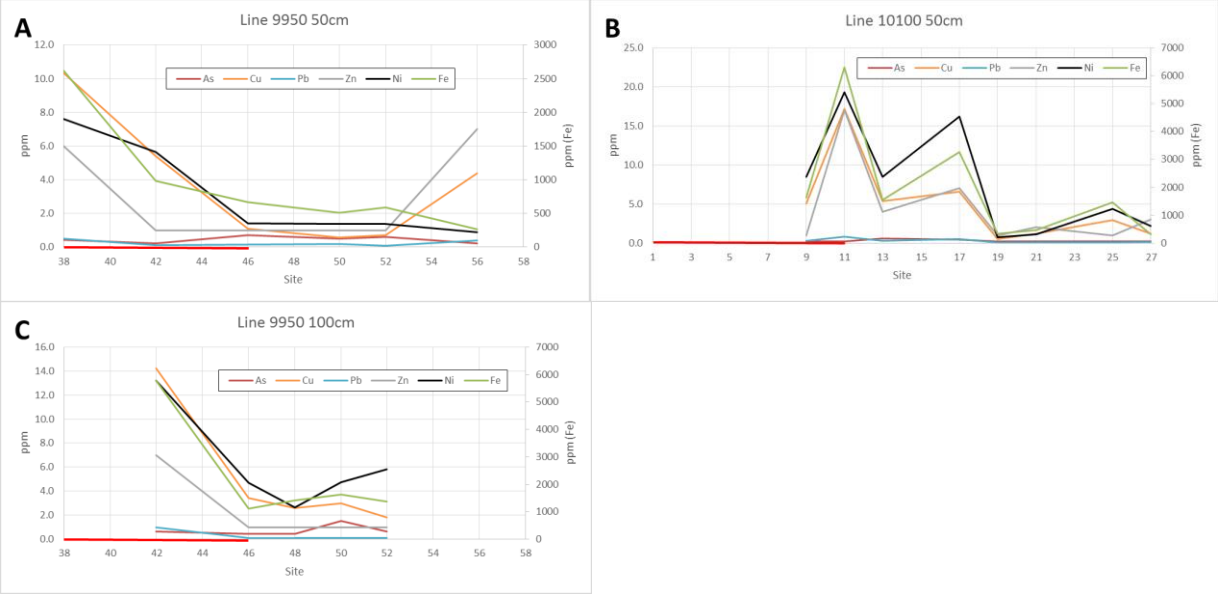


Figure 13. The hydroxylamine leach shows a broad peak of ore indicator metals overlying the buried ore (denoted by the red bar) in line 9950 at both 50cm (A) and 100cm (C). Line 10100 shows a sharp peak of ore indicator metals on the edge of the buried ore projection at a depth of 50cm (B).

4.3.3 Pyrophosphate Leach

At the surface, the pyrophosphate leach does not show an anomaly in ore indicator metals relative to the buried ore in line 10100 (Figure 14 B). In line 9950, there is a visible peak in the concentrations of Cu, and Fe over the surface projection of the ore body (Figure 14 A) as there was in the hydroxylamine leach, although the Ni is below the detection limit in this case.

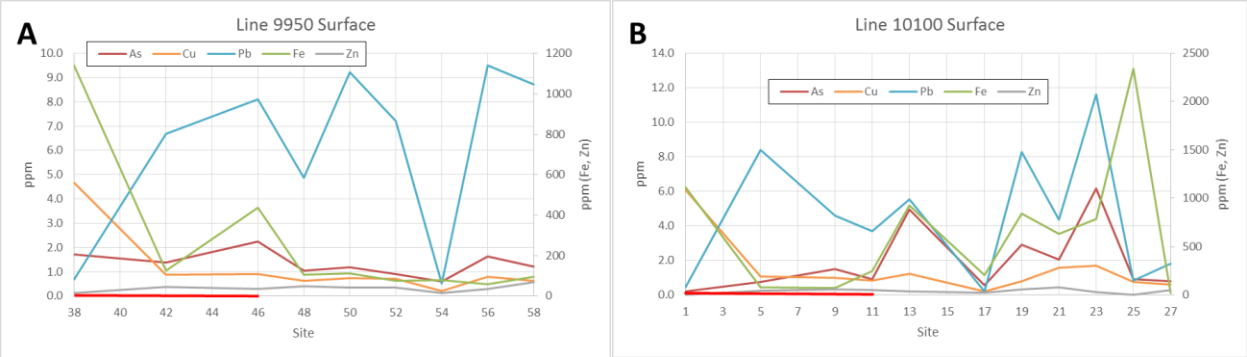


Figure 14. Pyrophosphate leach results from the surface of line 9950 (A) shows a peak of ore indicator metal concentrations over the buried ore for Cu, and Fe. Line 10100 (B) does not display any anomalies in ore indicator metal concentrations over the buried ore.

The pyrophosphate leach at 50cm and 100 cm shows similar anomalous patterns to the AA5 and hydroxylamine leaches, with a broad anomaly in line 9950 (Figure 15 A) and a sharp anomaly in line 10100 (Figure 15 B), though much less clearly defined (Figure 15). Iron in particular shows its peak concentration outside the surface projection of the buried mineralization at 100cm in line 9950 (Figure 15 C).

The concentrations of ore indicator metals observed from the pyrophosphate leach are of the same magnitude as the concentrations observed from the hydroxylamine leach with the exception of Zn (Figure 13, 15). The pyrophosphate leach from 50cm for both lines and for 100cm from line 9950 show Zn levels similar to those observed in the AA5 leach at the corresponding depths (Figure 11, 15).

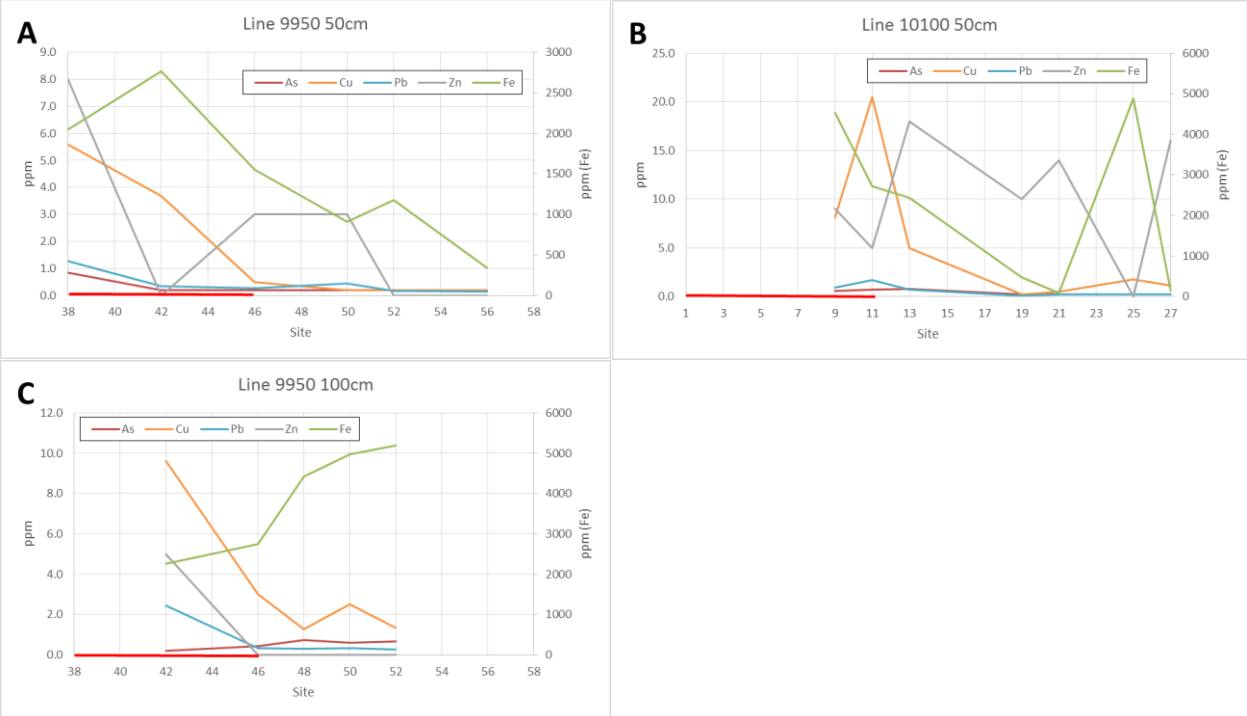


Figure 15. Pyrophosphate leach shows much less well defined anomaly overlying the buried ore (defined by the red bar) at 50 cm in line 9950 (A) and line 10100 (B) as well as at 100cm in line 9950 (C) than AA5 and hydroxylamine leaches.

4.4 Aqua Regia

After each selective leach an aqua regia was performed for QA/QC for homogeneity of samples, as well as to observe any anomalies in ore indicator metals in the residual material. The results of the aqua regia showed excellent QA/QC with very few samples showing >10% difference between the three samples.

With such great similarity between the three aqua regia data sets, the anomaly patterns observed are very similar as well. Figure 16 shows the aqua regia that was performed after the AA5 leach. The surface samples in both line 9950 (Figure 16 A) and line 10100 (Figure 16 B) do not show distinct anomalies in ore indicator metal concentrations. Similarly to the selective leaches, a depth of 50 cm shows a well-defined, broad concentration anomaly of ore indicator metals over the buried mineralization in line 9950 (Figure 16 C) and a sharp concentration

anomaly at the edge of the surface projection of the buried mineralization in line 10100 (Figure 16 D). Similar to the results of the selective leaches, line 9950 shows a well-defined, broad anomaly of ore indicator metals over the buried mineralization at a depth of 100cm (Figure 16 E).

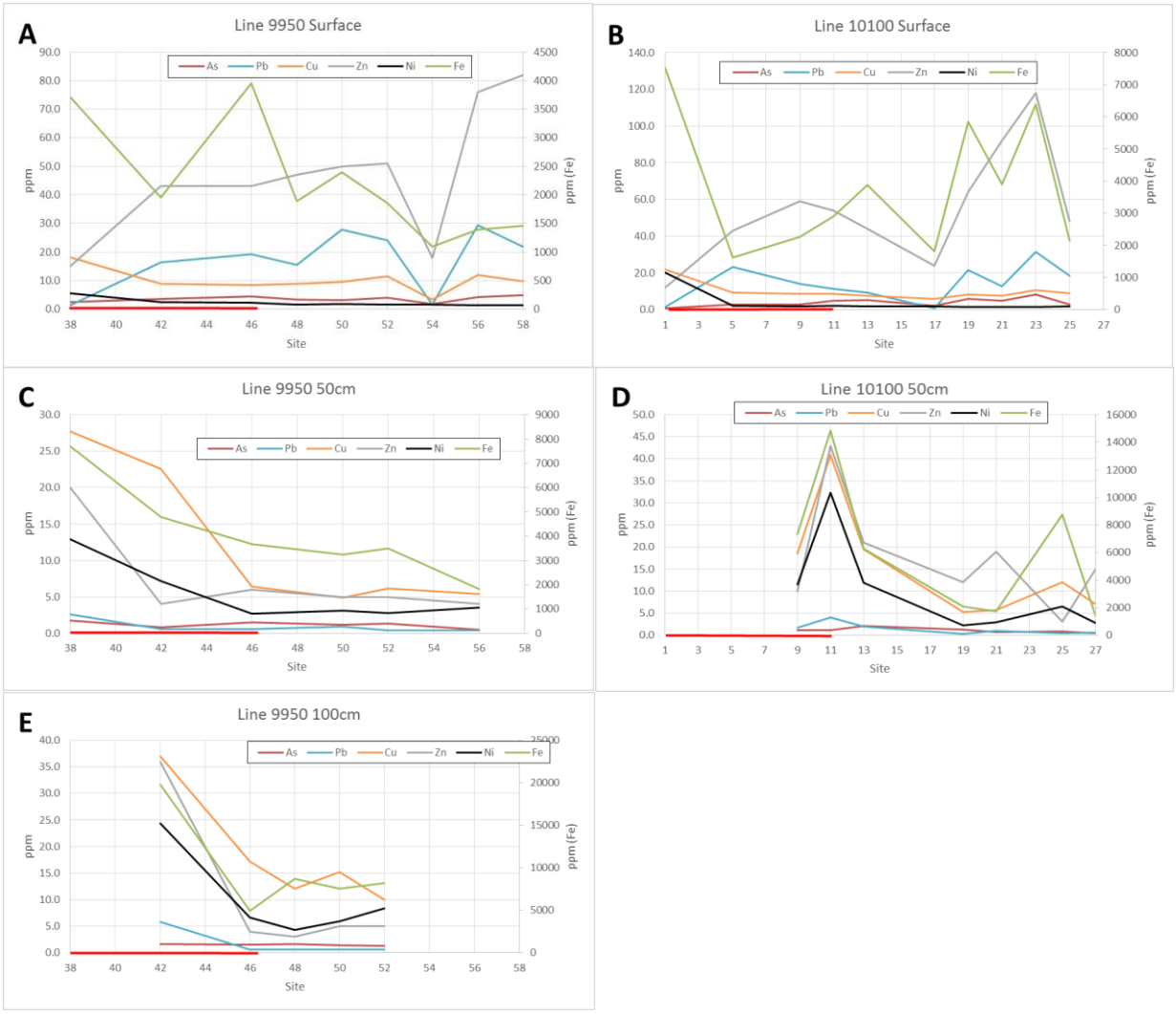


Figure 16. Aqua regia performed after AA5 leach. No visible anomaly relative to buried ore (denoted by the red bar) shown in surface data (A and B). At 50cm there is a broad anomaly overlying the buried ore in line 9950 (C) and a sharp peak on the edge of the surface projection of the buried ore in line 10100 (D). At 100cm in line 9950 (E) there is a broad anomaly in ore indicator metals over the buried mineralization, similar to that seen at 50cm in line 9950.

5. Discussion

Surface anomalies of ore indicator metals overlying deeply buried mineralization have been observed through simple, cost-efficient, surficial geochemical techniques such as selective or sequential leach analysis several times in arid environments (Mann et al., 2005; Mann, 2010; Xueqiu et al., 2016), and temperate minerallic soils (Fedotov et al., 2007; Hamilton, 1998; Leslie et al., 2013) in recent years with advancements in detection limits of ICP-MS, and increased commercial availability. Much of Canada however is covered by organic-rich swamp, or bog type landscapes and little work has been done to discover whether such geochemical anomalies can be seen over deeply buried ore in these environments. The presence of high levels of organic matter in such environments may be a dominant factor in the formation of any potential geochemical anomalies due to the complex manner in which organic matter affects solubility, speciation, and mobility of metals in solution (Warwick et al., 1998; Violante et al., 2003a; Bryan et al., 2007).

5.1 Metal Mobility Within the Peat Profile

In general, some cationic metals are more mobile than others, with Cd and Zn tending towards greater mobility under oxidizing surface conditions, and Pb, Ni, Cu, and Fe tending to be less mobile unless subjected to specific circumstances (Gambrell et al., 1991). It is believed that the high mobility of Zn under surface conditions is what has led to its displaying the greatest anomaly relative to background levels in previous studies (Leslie et al., 2013; Mann, 2010; van Geffen et al., 2012). This study does not show Zn to have the greatest anomaly relative to background but rather Fe as it is present in the greatest abundance of all the metals tested for in this system, and consistently displays clear anomalies in concentration over the surface projection of the buried ore (Figures 11 and 13). The dynamics of this system are likely what

allow for the great abundance of Fe. Fe is highly redox sensitive and readily forms Fe oxide minerals, such as ferrihydrite, at redox interfaces, such as the swamp-till interface and the water-air interface (surface) of this system (Violante et al., 2003a). The resulting Fe oxides have a very low solubility themselves, and have a strong affinity to adsorb organic compounds which have been observed to promote subsequent sorption of metal cations to the Fe oxide mineral complex, thus increasing their stability (Violante et al., 2003b) and establishing the dynamics for the formation of a soil geochemical anomaly above buried mineralization that is introducing a source of metals to the system.

The Saturation Index (SI) values for this study site indicate that Fe oxide minerals from amorphous ferrihydrite to well-ordered hematite and magnetite are ubiquitously supersaturated under the conditions observed during the study (Table 2), providing ample sorption opportunities for the ore indicator metals entering the system from below. The implication of Fe oxide supersaturation of the swamp is that as metals, Zn, and Ni in particular (Violante, 2003a) are introduced from the oxidizing of the buried ore body, they are rapidly sorbed to form very stable Fe oxide-organic-metal complexes with low solubility (Warwick et al., 1998). The resulting complexes remain relatively immobile at depth in the peat profile and accumulate over time to create the visible concentration anomaly revealed by the hydroxylamine leach (Figure 13).

Unlike Zn and Ni which preferentially bind to Fe oxides, Cu, and to a lesser extent, Pb are known to preferentially bind with organic ligands (Fedotov et al., 2007). For Cu in particular, this can be seen in the results from the pyrophosphate leach (Figure 15) where it is the only metal to display the same anomalous patterns as seen in the AA5 (Figure 11) and hydroxylamine (Figure 13) leaches at 50cm and 100cm.

It was originally predicted that the pyrophosphate leach would yield the anomalies with the clearest anomalies in ore indicator metal concentration given the sheer abundance of organic matter available in the system and its very high CEC. Aside from Cu, which displays nearly identical anomalous values in the pyrophosphate leach as it does in the hydroxylamine leach (Figures 13 and 15), the hydroxylamine leach, which selects for reducible metals, associated with Mn and Fe oxides, displays the clearest anomalies when looking at several metals simultaneously (Figure 13). Besides abundance and high CEC, the organic-metal complexes are more soluble and less stable in a saturated system, such as the peat swamp in this study, than Fe oxides are (Bryan et al., 2007). This means that it is very likely that metals are sorbed to organics as they enter the system, however they are easily exchangeable and are not likely to remain sorbed to the organics long-term (Bryan et al., 2007), and are also likely to be transported outside the surface projection of the buried ore, thus obscuring any potential anomaly (Bryan et al., 2007).

Exchangeable metals associated with carbonates were not thought to likely play a large role in forming an anomaly of ore indicator metals in this system despite being underlain by dolostone. The SI values predicted in this system by PHREEQc-I for calcite and dolomite are undersaturated (Table 2), which is not surprising given the slightly acidic nature of this site. The AA5 leach supported this hypothesis (Figure 11) as there was a visible anomaly of indicator metal concentrations over the buried ore, but at a much smaller magnitude than the mineral phases associated with the hydroxylamine and pyrophosphate leaches.

5.2 Patterns in Indicator Metal Anomalies

5.2.1 Aqueous Phase

A visible anomaly of ore indicator metals can be detected on both line 9950 and line 10100 at the surface (Figure 5). These anomalies become more obscured at a depth of 50cm

(Figure 6) and are no longer distinct from the soil that does not overlay the buried mineralization at a depth of 100cm (Figure 7). This is likely a reflection of the changing Eh of the system from reducing at depth to oxidizing at the surface (Table 1). The minerals and organics that the metals are bound to at depth are stable under the reducing conditions found there, but at the water table (in this case, at the surface) they become oxidized and the metals are released into the aqueous phase, as previously demonstrated by Koretsky et al. (2006).

The concentration anomalies seen in the surface water can be broken into two distinct patterns, with Ni, Cu, and Fe forming a very sharp peak over the surface projection of the ore, and Cd, Pb, and Zn forming a broader peak (Figure 5). The distinct nature of these patterns observed in both sampling lines is feasibly due to affinities of each metal to bind or sorb to different minerals, thus causing them to be released differently as the respective minerals are oxidized.

5.2.2. Solid Phase

The anomalous concentrations of ore indicator metals revealed in the AA5 and hydroxylamine selective leaches can be observed to be more distinct with depth, as opposed to the aqueous phase. The surface samples of these data sets do not display any visible anomaly relative to the buried ore (Figures 10, 12) since a large portion of the metals (within pre-existing minerals) at the surface have been oxidized and thus liberated from their association with the solid form minerals (Koretsky et al., 2006). At a depth of 50cm the peak in metals overlying the buried ore is evident where the metals are still associated to the carbonate, or Fe or Mn oxide minerals (Figures 11 and 13). The samples from 100cm in line 9950 may show an even more pronounced anomaly, however there are too few sample points to be conclusive.

As mentioned earlier, the pyrophosphate leach does not show a well-defined anomaly of ore indicator metals relative to the buried mineralization at any depth (Figures 14, 15). These

findings were initially surprising given the high cation exchange capacity of organic ligands (which are highly associated with the pyrophosphate leach) and the high organic content of a peat swamp. Given the combination of inputs to the system from both the atmosphere and groundwater, as well as the circumneutral pH, this system is very similar to the classification of a moderately mineral-poor fen, as described in Bendell-Young (1999). This type of environment which lies on a gradient between a mineral-rich and mineral-poor fen has been shown to favour partitioning of Zn (as a representative trace metal) away from organic ligands and towards Fe oxide surfaces (Bendell-Young, 1999).

Based on previous works, it was predicted that Mg and Cu may display negative anomalies over buried ore, however this study showed Cu to actually display a positive anomaly (Figures 13 and 15), and Mg did not display any type of anomaly relative to the buried ore (Appendix 7).

5.3 Future Work

In the future, to improve a study of this type, several changes could be made to more clearly define and explain surficial metal anomalies in organic-rich environments related to buried mineralization. First, a characterization of the microbial community present in the surface projection of the buried ore should be conducted. This has been done in several other studies (Koretzky et al., 2007; Violante et al., 2010; Leslie et al., 2013), and it has been shown again and again that microbiology and geochemistry are intrinsically tied to one another, with the microbial community affecting, and being affected by, the inorganic mineral content and redox dynamics of a system. Understanding the biogeochemical dynamics can provide additional insight into the metal partitioning and mobility within a peat bog system such as the one in this study and can help predict the location and magnitude of ore indicator metal anomalies.

Additionally, performing synchrotron analyses such as micro X-ray diffraction (XRD) or extended X-ray absorption fine structure (EXAFS) on the peat samples to provide insight into the actual mineral phases present, as opposed to relying on the theoretical values provided by modelling programs such as PHREEQc-I, would further the understanding of the partitioning of ore indicator metals between mineral and organic phases in the system (Violante et al., 2010; Zimmerman and Weindorf, 2010).

Furthermore, additional sampling lines would be useful in future studies to help explain variance in anomalies seen between lines, and to expand on the dynamics observed within the peat profile. Finding a site where the peat extends past either side of the surface projection of the ore would also be very useful in clarifying any anomaly observed in ore indicator metal concentration.

5.4 Selective Leach Application for Mineral Exploration

Selective leach technology can be very useful in pinpointing drilling target areas for buried mineralization in a relatively cheap and simple manner. In this study, clear anomalies can been seen over the surface projection of the buried mineralization for multiple indicator metals. It is very important however that the dynamics of the system are well understood in order to target the selective leaches used. Each system will contain a unique set of conditions at the surface relative to the underlying endogenic rocks that must be thoroughly measured in order for selective leaching to provide meaningful results.

6. Conclusions

This study showed that a clear anomaly can be seen for multiple ore indicator metals in an organic-rich peat swamp overlying a buried Zn-Cu-Au-Ag VMS deposit using simple surficial geochemistry. The hydroxylamine selective leach, which selects for reducible metals, often associated with Mn and Fe oxide minerals, proved to show the clearest anomaly in indicator metal concentrations in this system. It was expected that the pyrophosphate leach, which selects for oxidizable metals, often associated with organics, would show the clearest anomaly due to the organic-rich nature of the environment and the high CEC of organic ligands for metal cations, however the low solubility and high stability of Fe oxide mineral-organic-metal complexes make them the dominant phase in the formation of anomalous indicator metal concentrations overlying the buried mineralization in this system.

Surficial geochemistry can be useful in pinpointing drilling target areas in organic-rich surface environments as long as the dynamics of the system are well understood in order to most clearly discover any anomalies present.

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Appendix 1: Water Chemistry Results

	Li ICP-MS DIRECT ppb	Be ICP-MS DIRECT ppb	B ICP-MS DIRECT ppb	Al ICP-MS DIRECT ppb	Ti ICP-MS DIRECT ppb	V ICP-MS DIRECT ppb	Cr ICP-MS DIRECT ppb	Mn ICP-MS DIRECT ppb	Co ICP-MS DIRECT ppb	Ni ICP-MS DIRECT ppb	Cu ICP-MS DIRECT ppb	Zn ICP-MS DIRECT ppb	Ga ICP-MS DIRECT ppb	Ge ICP-MS DIRECT ppb	As ICP-MS DIRECT ppb	Se ICP-MS DIRECT ppb	Rb ICP-MS DIRECT ppb
D.L.	0.02	0.005	0.5	2	0.5	0.1	0.1	0.1	0.05	0.2	0.1	0.5	0.01	0.02	0.1	1	0.05
TB AUG. 30	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB AUG. 31	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 1	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 2	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 3	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 4	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 6	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 8	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 9	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 2	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
blank	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	0.1	0.8	< 0.01	< 0.02	< 0.1	< 1	< 0.05
blank, w white plastic	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	0.2	0.2	< 0.05	< 0.2	< 0.1	3.2	< 0.01	< 0.02	< 0.1	< 1	< 0.05
blank, w black plastic	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	0.8	< 0.05	0.5	< 0.1	4.0	< 0.01	< 0.02	< 0.1	< 1	< 0.05
WS1 - 0	6.19	0.013	8.7	353	6.8	1.2	1.2	950.9	2.77	3.9	2.7	5.0	0.05	< 0.02	2.8	< 1	5.79
WS1 - 0B	5.78	0.013	7.9	133	3.4	1.0	1.0	822.4	1.50	2.2	1.3	2.0	0.02	< 0.02	3.1	< 1	6.92
WS3 - 0	1.12	0.006	2.9	57	0.9	0.3	0.4	215.6	0.51	0.6	0.7	9.9	< 0.01	< 0.02	2.0	< 1	0.90
WS3 - 0B	1.30	< 0.005	2.8	52	0.9	0.3	0.5	200.8	0.47	0.6	0.6	10.1	< 0.01	< 0.02	2.1	< 1	1.69
WS5 - 0	1.28	< 0.005	2.7	28	< 0.5	0.1	0.3	119.3	0.23	0.4	0.8	11.6	< 0.01	< 0.02	1.9	< 1	0.55
WS5 - 0B	1.32	< 0.005	2.4	29	< 0.5	0.1	0.3	193.3	0.33	0.4	0.5	12.8	< 0.01	< 0.02	2.1	< 1	1.60
WS5 - 60	1.35	< 0.005	2.4	42	0.7	0.2	0.3	85.7	0.27	0.6	0.3	5.8	< 0.01	< 0.02	1.8	< 1	0.55
WS7 - 0	0.94	< 0.005	2.9	23	< 0.5	0.1	0.2	601.4	0.72	0.6	0.7	13.7	< 0.01	< 0.02	2.2	< 1	2.08
WS7 - 0B	1.21	< 0.005	1.9	13	< 0.5	0.1	0.2	2663.2	1.95	0.4	0.4	21.8	0.02	< 0.02	4.0	< 1	2.78
WS7 - 50	1.23	< 0.005	2.9	82	2.7	0.2	0.4	186.1	0.57	0.7	0.5	4.1	0.02	< 0.02	2.2	< 1	0.91
WS9 - 0	0.86	< 0.005	2.9	18	< 0.5	0.1	0.2	104.6	0.32	0.4	0.7	10.0	< 0.01	< 0.02	2.0	< 1	1.87
WS9 - 0B	0.93	< 0.005	2.8	6	< 0.5	< 0.1	0.1	313.3	0.43	0.2	0.5	9.0	< 0.01	< 0.02	1.8	< 1	0.67
WS9 - 60	1.19	< 0.005	15.1	22	0.6	0.1	0.4	297.8	0.76	1.3	1.3	4.9	< 0.01	< 0.02	2.3	< 1	0.68
WS11 - 0	0.77	< 0.005	2.7	4	< 0.5	< 0.1	0.1	237.9	0.30	< 0.2	0.1	4.2	< 0.01	< 0.02	2.1	< 1	0.12
WS11 - 0B	0.76	< 0.005	2.8	4	< 0.5	< 0.1	0.1	169.4	0.23	< 0.2	0.2	4.2	< 0.01	< 0.02	1.8	< 1	0.06
WS11 - 50	1.21	< 0.005	3.1	62	2.6	0.2	0.4	177.1	0.82	1.4	0.2	2.9	0.02	< 0.02	3.4	< 1	0.33
WS13 - 0	0.80	< 0.005	3.3	70	1.3	0.3	0.4	149.8	0.30	0.3	0.3	3.0	< 0.01	< 0.02	2.0	< 1	0.48
WS13 - 0B	0.85	0.006	3.7	55	1.2	0.3	0.4	331.0	0.42	0.6	1.2	15.1	< 0.01	< 0.02	2.4	< 1	0.97
WS13 - 60	1.74	< 0.005	2.9	34	1.3	0.2	0.4	307.5	1.36	1.9	0.4	3.3	< 0.01	< 0.02	3.2	< 1	0.58
WS15 -0	0.75	< 0.005	1.9	3	< 0.5	< 0.1	< 0.1	25.8	0.05	< 0.2	0.1	2.4	< 0.01	< 0.02	2.2	< 1	0.34
WS15 -0B	0.81	< 0.005	2.0	3	< 0.5	< 0.1	0.1	483.6	0.24	< 0.2	0.3	10.8	< 0.01	< 0.02	3.6	< 1	1.15
WS15 - 70	1.35	< 0.005	3.0	11	0.6	< 0.1	0.2	273.6	0.50	0.7	0.2	2.9	< 0.01	< 0.02	4.6	< 1	0.38
WS17 - 0	0.66	< 0.005	1.6	3	< 0.5	< 0.1	< 0.1	4.9	< 0.05	< 0.2	0.2	1.9	< 0.01	< 0.02	2.3	< 1	0.97
WS17 - 0B	0.64	< 0.005	1.9	3	< 0.5	< 0.1	0.1	65.7	< 0.05	< 0.2	0.3	6.8	< 0.01	< 0.02	2.8	< 1	0.65
WS17 - 85	1.16	< 0.005	0.7	91	3.4	0.2	0.3	263.9	1.18	0.9	0.3	2.4	0.02	< 0.02	3.9	< 1	0.33
WS19 - 0	0.70	< 0.005	2.0	2	< 0.5	< 0.1	0.1	149.9	0.08	< 0.2	0.1	2.5	< 0.01	< 0.02	2.1	< 1	1.03
WS19 - 0B	0.70	< 0.005	2.3	5	< 0.5	< 0.1	0.1	62.2	0.10	< 0.2	0.4	6.5	< 0.01	< 0.02	2.8	< 1	6.67
WS19 - 60	0.64	< 0.005	1.7	4	< 0.5	< 0.1	0.2	98.7	0.15	0.3	0.1	1.9	< 0.01	< 0.02	2.1	< 1	0.18
WS21 - 0	0.65	< 0.005	1.6	2	< 0.5	< 0.1	< 0.1	3.9	< 0.05	0.6	0.2	1.7	< 0.01	< 0.02	1.8	< 1	0.22
WS21 - 0B	0.63	< 0.005	1.5	2	< 0.5	< 0.1	< 0.1	26.5	< 0.05	< 0.2	0.1	3.7	< 0.01	< 0.02	1.3	< 1	0.14
WS21 - 60	0.74	< 0.005	2.6	10	< 0.5	< 0.1	0.2	142.5	0.13	0.4	0.2	2.4	< 0.01	< 0.02	1.4	< 1	0.38
WS21 - 140	0.85	0.064	1.7	542	20.0	8.1	2.8	213.8	1.24	2.0	0.9	1.7	0.10	< 0.02	2.9	< 1	0.48
WS23 - 0	0.68	< 0.005	1.7	3	< 0.5	< 0.1	0.1	35.8	0.06	< 0.2	0.2	3.3	< 0.01	< 0.02	1.6	< 1	0.18
WS23 -0B	0.70	< 0.005	1.7	3	< 0.5	< 0.1	0.2	56.1	0.09	< 0.2	0.2	3.7	< 0.01	< 0.02	1.7	< 1	0.27
WS23 - 60	0.69	< 0.005	2.4	3	< 0.5	< 0.1	0.1	574.2	0.24	< 0.2	< 0.1	1.3	< 0.01	< 0.02	2.0	< 1	0.12
WS25 - 0	0.66	< 0.005	2.2	3	< 0.5	< 0.1	0.1	20.4	< 0.05	< 0.2	0.2	2.3	< 0.01	< 0.02	1.3	< 1	0.10
WS25 - 0B	0.69	< 0.005	2.4	4	< 0.5	< 0.1	0.1	89.8	0.08	< 0.2	0.2	3.6	< 0.01	< 0.02	1.4	< 1	0.11
WS25 - 60	0.60	< 0.005	2.4	14	0.9	0.2	0.4	128.6	0.41	0.8	0.2	0.6	< 0.01	< 0.02	1.0	< 1	0.07
WS27 - 0	0.71	< 0.005	3.6	5	< 0.5	< 0.1	0.2	23.2	0.07	0.3	0.2	2.5	< 0.01	< 0.02	1.6	< 1	0.28
WS27 - 0 DUP	0.70	< 0.005	3.4	5	< 0.5	< 0.1	0.2	23.4	0.06	0.3	0.2	2.6	< 0.01	< 0.02	1.6	< 1	0.28
WS27 -0B	0.72	< 0.005	4.1	5	< 0.5	< 0.1	0.2	131.4	0.12	< 0.2	0.2	3.2	< 0.01	< 0.02	1.8	< 1	1.02
WS27 - 60	0.94	< 0.005	3.2	5	< 0.5	< 0.1	0.2	17.8	0.09	0.3	0.1	1.2	< 0.01	< 0.02	1.7	< 1	0.15
WS27 80	2.63	< 0.005	3.5	15	0.8	0.1	0.3	301.2	1.42	1.3	0.2	1.0	< 0.01	< 0.02	3.3	< 1	0.14
WS29 - 0	1.02	< 0.005	4.7	26	0.6	0.2	0.3	99.7	0.10	0.5	0.5	4.9	< 0.01	< 0.02	1.6	< 1	0.75
WS29 -40	0.86	< 0.005	2.4	33	1.2	0.2	0.4	80.7	0.17	1.1	0.6	2.1	< 0.01	< 0.02	1.0	< 1	0.30
WS31 - 0	1.19	< 0.005	6.4	12	< 0.5	0.1	0.4	110.9	0.10	0.4	0.4	7.2	< 0.01	< 0.02	1.5	< 1	0.77
WS33 - 0	0.38	< 0.005	5.2	9	< 0.5	0.1	0.2	207.5	0.10	< 0.2	0.5	1.9	< 0.01	< 0.02	1.1	< 1	0.40
WS35 -0	0.43	< 0.005	3.4	10	< 0.5	0.1	0.2	127.6	< 0.05	< 0.2	0.5	4.2	< 0.01	< 0.02	1.5	< 1	1.07
WS36 - 0	1.94	0.007	2.0	48	1.5	0.3	0.4	67.8	0.78	1.4	1.2	6.7	< 0.01	< 0.02	1.8	< 1	2.93
WS38 - 0	1.25	< 0.005	2.2	10	< 0.5	< 0.1	0.2	130.4	0.54	0.4	0.3	4.0	< 0.01	< 0.02	5.5	< 1	1.50
WS38 - 50	1.50	0.008	2.5	235	10.4	0.6	0.7	126.4	2.05	2.6	2.0	3.4	0.05	< 0.02	7.5	< 1	1.31
WS40 - 0	0.96	< 0.005	2.3	5	< 0.5	< 0.1	0.1	39.5	0.30	0.3	0.3	5.9	< 0.01	< 0.02	2.5	< 1	1.72
WS40 - 50	0.98	< 0.005	2.3	20	< 0.5	0.1	0.2	29.9	0.27	0.5	0.5	4.1	< 0.01	< 0.02	2.0	< 1	0.93
WS40 - 50B	1.28	< 0.005	1.5	55	1.6	0.5	0.6	72.1	0.56	1.7	2.3	20.0	0.01	< 0.02	1.7	< 1	1.27
WS42 - 0	0.97	< 0.005	2.5	4	< 0.5	< 0.1	0.1	113.7	0.15	< 0.2	0.3	4.1	< 0.01	< 0.02	2.7	< 1	1.14
WS42 - 50	1.27	0.006	1.3	59	1.2	0.6	0.7	242.4	1.17	3.2	1.3	3.0	0.01	< 0.02	1.3	< 1	0.77
WS42 - 85	1.79	0.010	2.0	201	11.6	1.1	2.3	6.6	0.12	2.0	4.6	2.1	0.03	< 0.02	3.0	< 1	0.76
WS44 - 0	0.74	0.005	1.6	2	< 0.5	< 0.1	0.2	68.1	0.07	< 0.2	0.3	2.2	< 0.01	< 0.02	1.6	< 1	0.25
WS44 - 50	0.86	< 0.005	2.2	38	1.6	0.2	0.2	192.4	0.29	0.4	0.7	4.4	< 0.01	< 0.02	2.3	< 1	1.87
WS44 - 50B	0.93	< 0.005	2.1	18	0.7	0.1	0.2	579.8	0.33	0.4	1.7	10.6	< 0.01	< 0.02	1.9	< 1	2.28
WS46 - 0	0.64	< 0.005	1.5	2	< 0.5	< 0.1	< 0.1	18.7	< 0.05	< 0.2	0.1	2.0	< 0.01	< 0.02	1.6	< 1	0.31
WS46 - 50	0.90	< 0.005	1.0	16	0.5	< 0.1	0.2	81.3	0.32	0.3	0.3	1.9	< 0.01	< 0.02	0.7	< 1	0.47
WS46 - 50B	0.78	< 0.005	1.1	31	0.7	< 0.1	0.2	150.8	0.32	0.4	0.7	3.1	< 0.01	< 0.02	1.1	< 1	0.89
WS46 - 100	1.54	0.009	0.8	145	7.4	1.3	1.1	175.8	0.64	1.1	6.4	3.7	0.03	< 0.02	2.0	< 1	0.80
WS48 - 0	0.63	< 0.005	1.2	2	< 0.5	< 0.1	0.1	6.8	< 0.05	< 0.2	0.2	1.9	< 0.01	< 0.02	1.4	< 1	0.23
WS48 - 50	0.92	< 0.005	0.7	11	< 0.5	< 0.1	0.1	94.7	0.26	0.2	0.2	0.6	< 0.01	< 0.02	0.9	< 1	0.26
WS48 - 100	1.40	< 0.005	1.8	58	1.4	0.4	0.6	200.7	0.55	0.8	3.5	6.8	< 0.01	< 0.02	2.0	< 1	0.58
WS50 - 0B	0.69	< 0.005	1.4	3	< 0.5	< 0.1	0.1	18.0	< 0.05	< 0.2	0.1	1.9	< 0.01	< 0.02	1.2	< 1	0.17
WS50 - 50	0.87	< 0.005	2.3	51	1.7	0.2	0.3	81.4	0.20	0.5	1.0	4.4	0.01	< 0.02	1.8	< 1	1.29
WS50 - 50B	1.24	< 0.005	0.6	10	< 0.5	< 0.1	0.5	148.9	0.47	3.1	0.6	4.7	< 0.01	< 0.02	0.8	< 1	0.12
WS50 - 100	1.48	< 0.005	1.2	15	< 0.5	0.2	0.6	192.1	0.35	0.6	1.1	2.8	< 0.01	< 0.02	1.4	< 1	0.91
WS50 - 100B	1.62	< 0.005	0.7	12	< 0.5	0.1	0.4	186.2	0.36	0.3	0.5	3.2	< 0.01	< 0.02	1.4	< 1	0.43
WS52 - 0B	0.73	< 0.005	2.5	4	< 0.5	< 0.1	0.1	174.2	0.10	< 0.2	0.3	4.8	< 0.01	< 0.02	1.4	< 1	0.56
WS52 - 50	0.82	< 0.005	1.8	36	1.1	0.1	0.2	71.3	0.19	0.4	0.8	3.1	< 0.01	< 0.02	1.4	< 1	0.86
WS52 - 50B	0.89	< 0.005	1.9	9	< 0.5	< 0.1	0.2	261.9	0.21	0.2	0.6	3.6	< 0.01	< 0.02	1.7	< 1	0.47
WS52 - 95	3.28	< 0.005	2.5	19	0.6	0.1	0.5	428.0	0.72	0.7	1.2	3.6	< 0.01	< 0.02	2.3	< 1	2.77
WS52 - 95B	3.28	< 0.005	2.7	9	< 0.5	< 0.1	0.3	405.9	0.66	0.5	0.9	5.1	< 0.01	< 0.02	2.2	< 1	1.89
WS54 - 0	0.86	< 0.005	2.8	5	< 0.5	< 0.1	0.2	28.0	0.09	< 0.2	0.2	2.5	< 0.01	< 0.02	1.1	< 1	0.33
WS54 - 50	1.12	< 0.005	2.9	41	1.3	0.2	0.4	153.1	0.45	0.6	0.9	3.0	0.01	< 0.02	1.7	< 1	1.16
WS54 - 50B	1.09	< 0.005	1.2	7	< 0.5	< 0.1	0.2	69.5	0.33	< 0.2	0.2	1.2	< 0.01	< 0.02	1.5	< 1	0.28
WS56 - 0	1.14	< 0.005	1.6	6	< 0.5	< 0.1	0.1	169.8	0.20	< 0.2	0.2	4.6	< 0.01	< 0.02	1.4	< 1	0.16
WS56 - 50	1.27	< 0.005	2.4	18	< 0.5	0.4	1.0	6.5	< 0.05	0.5	0.7	3.6	< 0.01	< 0.02	1.8	< 1	0.54
WS58 - 0	1.00	< 0.005	2.0	8	< 0.5	< 0.1	0.2	59.5	0.10	< 0.2	0.3	3.3	< 0.01	< 0.02	1.5	< 1	0.22
WS60 - 0	1.52	< 0.005	2.4	10	< 0.5	0.1	0.2	57.8	0.13	< 0.2	0.3	3.9	< 0.01	< 0.02	1.5	< 1	0.79
WS60 - 0B	1.54	< 0.005	2.6	15	< 0.5	0.1	0.2	49.1	0.12	0.3	0.5	6.1	< 0.01	< 0.02	1.5	< 1	0.29
WS62 - 0	1.99	< 0.005	4.3	9	< 0.5	0.1	0.2	22.2	0.06	0.3	0.3	2.8	< 0.01	< 0.02	1.5	< 1	0.19

	Li	Be	B	Al	Ti	V	Cr	Mn	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Rb
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
D.L.	0.02	0.005	0.5	2	0.5	0.1	0.1	0.1	0.05	0.2	0.1	0.5	0.01	0.02	0.1	1	0.05
REPEATS																	
TB SEP. 2	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
TB SEP. 2 REP	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
WS9 - 0	0.86	< 0.005	2.9	18	< 0.5	0.1	0.2	104.6	0.32	0.4	0.7	10.0	< 0.01	< 0.02	2.0	< 1	1.87
WS9 - 0 REP	0.92	< 0.005	3.0	27	0.7	0.1	0.2	108.2	0.34	0.5	0.7	10.4	< 0.01	< 0.02	2.1	< 1	1.94
WS19 - 60	0.64	< 0.005	1.7	4	< 0.5	< 0.1	0.2	98.7	0.15	0.3	0.1	1.9	< 0.01	< 0.02	2.1	< 1	0.18
WS19 - 60 REP	0.66	< 0.005	1.8	4	< 0.5	< 0.1	0.2	100.4	0.15	0.3	0.1	1.9	< 0.01	< 0.02	2.1	< 1	0.18
WS31 - 0	1.19	< 0.005	6.4	12	< 0.5	0.1	0.4	110.9	0.10	0.4	0.4	7.2	< 0.01	< 0.02	1.5	< 1	0.77
WS31 - 0 REP	1.20	< 0.005	6.3	12	< 0.5	0.1	0.4	113.8	0.10	0.4	0.5	7.3	< 0.01	< 0.02	1.5	< 1	0.79
WS46 - 50	0.90	< 0.005	1.0	16	0.5	< 0.1	0.2	81.3	0.32	0.3	0.3	1.9	< 0.01	< 0.02	0.7	< 1	0.47
WS46 - 50 REP	0.98	< 0.005	1.2	18	0.8	< 0.1	0.2	84.2	0.33	0.7	0.9	3.4	< 0.01	< 0.02	0.7	< 1	0.50
WS54 - 0	0.86	< 0.005	2.8	5	< 0.5	< 0.1	0.2	28.0	0.09	< 0.2	0.2	2.5	< 0.01	< 0.02	1.1	< 1	0.33
WS54 - 0 REP	0.84	< 0.005	2.6	5	< 0.5	< 0.1	0.2	27.6	0.08	< 0.2	0.2	2.4	< 0.01	< 0.02	1.1	< 1	0.32
CONTROLS																	
BLANK	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
BLANK	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
BLANK	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
BLANK	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
BLANK	< 0.02	< 0.005	< 0.5	< 2	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.5	< 0.01	< 0.02	< 0.1	< 1	< 0.05
SLRS-5	0.48	0.009	7.2	51	2.0	0.3	0.2	4.5	< 0.05	0.4	18.7	1.0	0.01	< 0.02	0.5	< 1	1.30
SLRS-5	0.47	< 0.005	7.0	50	2.0	0.3	0.2	4.5	< 0.05	0.4	18.5	1.0	0.01	< 0.02	0.4	< 1	1.29
CERTIFIED				49.5 ± 5		0.317 ± 0.033	0.208 ± 0.023	4.33 ± 0.18		0.476± 0.064	17.4 ± 1.3	0.845 ± 0.095			0.413 ± 0.039		
INFORMATION		0.005							0.05								
TM26.2	6.95	3.592	22.9	72	5.4	12.1	11.0	17.2	7.96	9.8	16.2	37.8	< 0.01	< 0.02	8.2	5	0.14
TM26.2	7.11	3.641	22.4	71	5.5	12.1	11.0	17.4	8.05	9.9	15.5	38.2	< 0.01	< 0.02	8.4	5	0.14
CERTIFIED		3.3 ± 0.55		68. ± 12.		12. ± 2.3	11.1 ± 1.8	16.6 ± 2.5	8.1 ± 1.2	9.9 ± 1.7	14.5 ± 3.2	31. ± 7.4			7.7 ± 1.4	5.1 ± 1.4	
INFORMATION																	

	Sr ICP-MS DIRECT ppb	Y ICP-MS DIRECT ppb	Zr ICP-MS DIRECT ppb	Nb ICP-MS DIRECT ppb	Mo ICP-MS DIRECT ppb	Ag ICP-MS DIRECT ppb	Cd ICP-MS DIRECT ppb	In ICP-MS DIRECT ppb	Sn ICP-MS DIRECT ppb	Sb ICP-MS DIRECT ppb	Te ICP-MS DIRECT ppb	Cs ICP-MS DIRECT ppb	Ba ICP-MS DIRECT ppb	La ICP-MS DIRECT ppb	Ce ICP-MS DIRECT ppb	Pr ICP-MS DIRECT ppb	Nd ICP-MS DIRECT ppb	Sm ICP-MS DIRECT ppb
D.L.	0.5	0.01	0.05	0.01	0.05	0.005	0.02	0.01	0.01	0.01	0.02	0.01	0.2	0.01	0.01	0.005	0.005	0.005
TB AUG. 30	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.02	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB AUG. 31	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 1	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 2	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 3	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 4	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 6	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 8	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 9	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 2	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
blank	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
blank, w white plastic	0.8	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.27	0.06	< 0.02	< 0.01	0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
blank, w black plastic	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.09	< 0.02	< 0.01	0.7	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS1 - 0	48.0	0.13	0.41	0.02	0.25	0.012	0.05	< 0.01	0.01	0.11	< 0.02	0.02	77.7	0.20	0.48	0.055	0.226	0.041
WS1 - 0B	46.8	0.07	0.27	0.01	0.33	< 0.005	< 0.02	< 0.01	< 0.01	0.06	< 0.02	0.02	74.7	0.07	0.18	0.021	0.088	0.018
WS3 - 0	16.8	0.05	0.08	< 0.01	< 0.05	< 0.005	0.04	< 0.01	< 0.01	0.01	< 0.02	< 0.01	9.7	0.04	0.12	0.013	0.057	0.012
WS3 - 0B	18.3	0.05	0.11	< 0.01	< 0.05	< 0.005	0.04	< 0.01	0.01	0.03	< 0.02	< 0.01	10.1	0.05	0.11	0.014	0.055	0.012
WS5 - 0	14.3	0.03	0.05	< 0.01	< 0.05	< 0.005	0.05	< 0.01	0.01	0.02	< 0.02	< 0.01	6.2	0.03	0.07	0.008	0.033	0.007
WS5 - 0B	14.8	0.03	0.12	< 0.01	< 0.05	< 0.005	0.05	< 0.01	0.02	0.02	< 0.02	< 0.01	7.9	0.03	0.07	0.008	0.033	0.006
WS5 - 60	21.3	0.03	0.06	< 0.01	< 0.05	< 0.005	0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	8.1	0.04	0.09	0.011	0.044	0.009
WS7 - 0	15.5	0.01	< 0.05	< 0.01	0.11	< 0.005	0.16	< 0.01	0.01	< 0.01	< 0.02	0.01	9.2	0.02	0.06	< 0.005	0.018	< 0.005
WS7 - 0B	30.1	0.01	< 0.05	< 0.01	0.11	< 0.005	0.07	< 0.01	< 0.01	< 0.01	< 0.02	0.01	22.0	0.02	0.07	< 0.005	0.017	< 0.005
WS7 - 50	20.5	0.04	0.14	< 0.01	< 0.05	< 0.005	0.03	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	8.6	0.09	0.21	0.023	0.083	0.012
WS9 - 0	14.3	0.01	0.09	< 0.01	0.21	< 0.005	0.16	< 0.01	< 0.01	< 0.01	< 0.02	0.01	10.8	0.03	0.04	< 0.005	0.016	< 0.005
WS9 - 0B	14.6	< 0.01	< 0.05	< 0.01	0.06	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	11.4	< 0.01	0.02	< 0.005	0.009	< 0.005
WS9 - 60	23.8	0.02	< 0.05	< 0.01	0.09	< 0.005	0.02	< 0.01	0.02	0.03	< 0.02	< 0.01	35.3	0.02	0.03	< 0.005	0.013	< 0.005
WS11 - 0	11.3	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.8	< 0.01	0.01	< 0.005	0.006	< 0.005
WS11 - 0B	10.8	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	6.4	< 0.01	0.01	< 0.005	0.005	< 0.005
WS11 - 50	29.1	0.03	0.11	< 0.01	0.07	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	12.0	0.07	0.15	0.017	0.064	0.012
WS13 - 0	15.4	0.08	0.25	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.01	< 0.01	< 0.02	< 0.01	11.4	0.10	0.21	0.024	0.092	0.018
WS13 - 0B	19.3	0.06	0.23	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.03	0.02	< 0.02	< 0.01	16.2	0.08	0.17	0.019	0.072	0.013
WS13 - 60	54.0	0.05	0.17	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.01	< 0.02	< 0.01	22.1	0.05	0.11	0.014	0.057	0.011
WS15 -0	11.1	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	6.1	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS15 -0B	14.0	< 0.01	< 0.05	< 0.01	0.16	0.008	0.05	< 0.01	0.15	0.02	< 0.02	< 0.01	9.2	< 0.01	0.02	< 0.005	< 0.005	< 0.005
WS15 - 70	21.1	0.02	0.06	< 0.01	0.09	< 0.005	< 0.02	< 0.01	0.04	< 0.01	< 0.02	< 0.01	13.7	0.02	0.04	< 0.005	0.015	< 0.005
WS17 - 0	24.4	< 0.01	< 0.05	< 0.01	0.10	< 0.005	< 0.02	< 0.01	0.02	< 0.01	< 0.02	< 0.01	10.6	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS17 - 0B	12.3	< 0.01	< 0.05	< 0.01	0.12	< 0.005	< 0.02	< 0.01	0.02	< 0.01	< 0.02	< 0.01	5.9	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS17 - 85	24.5	0.04	0.20	0.01	0.06	< 0.005	< 0.02	< 0.01	0.01	< 0.01	< 0.02	< 0.01	12.1	0.08	0.19	0.019	0.069	0.011
WS19 - 0	13.3	< 0.01	< 0.05	< 0.01	0.10	< 0.005	< 0.02	< 0.01	0.01	< 0.01	< 0.02	< 0.01	7.4	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS19 - 0B	13.1	< 0.01	< 0.05	< 0.01	0.09	< 0.005	0.13	< 0.01	< 0.01	0.01	< 0.02	0.02	8.5	< 0.01	0.01	< 0.005	0.007	< 0.005
WS19 - 60	13.3	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.5	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS21 - 0	13.1	< 0.01	< 0.05	< 0.01	0.07	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	6.5	< 0.01	< 0.01	< 0.005	0.006	< 0.005
WS21 - 0B	11.9	< 0.01	< 0.05	< 0.01	0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	6.1	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS21 - 60	12.1	< 0.01	< 0.05	< 0.01	0.09	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.8	< 0.01	0.01	< 0.005	0.010	< 0.005
WS21 - 140	31.2	0.79	0.98	0.08	0.08	< 0.005	< 0.02	< 0.01	0.02	< 0.01	< 0.02	0.02	17.1	1.33	2.91	0.296	1.081	0.182
WS23 - 0	14.1	< 0.01	< 0.05	< 0.01	0.07	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.9	< 0.01	< 0.01	< 0.005	0.006	< 0.005
WS23 -0B	14.8	< 0.01	< 0.05	< 0.01	0.07	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	8.0	< 0.01	< 0.01	< 0.005	0.006	< 0.005
WS23 - 60	15.2	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	14.0	< 0.01	< 0.01	< 0.005	0.005	< 0.005
WS25 - 0	15.2	< 0.01	< 0.05	< 0.01	0.07	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	6.7	< 0.01	< 0.01	< 0.005	0.007	< 0.005
WS25 - 0B	15.3	< 0.01	< 0.05	< 0.01	0.06	< 0.005	< 0.02	< 0.01	< 0.01	0.03	< 0.02	< 0.01	7.3	< 0.01	0.01	< 0.005	0.008	< 0.005
WS25 - 60	27.6	0.02	0.10	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	14.1	0.02	0.04	0.005	0.021	0.006
WS27 - 0	19.8	0.01	< 0.05	< 0.01	0.07	< 0.005	0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	8.9	0.01	0.02	< 0.005	0.013	< 0.005
WS27 - 0 DUP	19.7	0.01	< 0.05	< 0.01	0.07	< 0.005	0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	8.9	0.01	0.02	< 0.005	0.013	< 0.005
WS27 - 0B	21.5	0.01	0.06	< 0.01	0.08	< 0.005	< 0.02	< 0.01	< 0.01	0.03	< 0.02	< 0.01	10.7	< 0.01	0.02	< 0.005	0.012	0.007
WS27 - 60	31.3	0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.01	< 0.02	< 0.01	9.8	< 0.01	0.02	< 0.005	0.010	< 0.005
WS27 80	97.2	0.03	0.12	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.01	< 0.02	< 0.01	36.0	0.02	0.05	0.006	0.025	0.006
WS29 - 0	21.3	0.03	0.09	< 0.01	0.12	< 0.005	0.06	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	10.2	0.03	0.05	0.007	0.027	0.005
WS29 -40	30.7	0.03	0.13	< 0.01	0.09	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	12.1	0.03	0.05	0.006	0.028	0.006
WS31 - 0	16.7	0.04	0.17	< 0.01	0.05	< 0.005	0.03	< 0.01	< 0.01	0.02	< 0.02	< 0.01	9.0	0.02	0.05	0.007	0.032	0.009
WS33 - 0	20.7	0.02	0.07	< 0.01	0.12	< 0.005	0.02	< 0.01	< 0.01	0.01	< 0.02	< 0.01	26.8	0.02	0.03	0.005	0.025	< 0.005
WS35 -0	19.9	0.02	0.09	< 0.01	0.10	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	14.7	0.01	0.03	< 0.005	0.021	< 0.005
WS36 - 0	16.3	0.04	0.08	< 0.01	0.18	< 0.005	0.31	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	9.9	0.07	0.14	0.014	0.055	0.010
WS38 - 0	15.3	0.01	< 0.05	< 0.01	0.09	< 0.005	0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	12.2	0.01	0.04	< 0.005	0.014	< 0.005
WS38 - 50	28.6	0.15	0.46	0.04	0.14	< 0.005	0.11	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	18.1	0.32	0.85	0.075	0.287	0.049
WS40 - 0	16.3	< 0.01	< 0.05	< 0.01	0.06	< 0.005	0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.1	< 0.01	0.02	< 0.005	0.008	< 0.005
WS40 - 50	18.4	0.02	< 0.05	< 0.01	< 0.05	< 0.005	0.03	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	6.3	0.02	0.04	< 0.005	0.018	< 0.005
WS40 - 50B	26.0	0.05	0.15	< 0.01	0.10	0.005	0.05	< 0.01	0.04	0.04	< 0.02	< 0.01	14.8	0.07	0.12	0.016	0.058	0.011
WS42 - 0	18.6	< 0.01	< 0.05	< 0.01	0.08	< 0.005	0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	11.5	< 0.01	0.02	< 0.005	0.006	< 0.005
WS42 - 50	26.0	0.06	0.13	< 0.01	0.07	< 0.005	0.03	< 0.01	< 0.01	0.02	< 0.02	< 0.01	10.7	0.08	0.12	0.017	0.065	0.012
WS42 - 85	33.2	0.24	1.16	0.07	0.11	0.013	< 0.02	< 0.01	0.12	0.18	< 0.02	< 0.01	3.9	0.26	0.43	0.067	0.258	0.047
WS44 - 0	14.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.01	< 0.02	< 0.01	6.1	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS44 - 50	14.6	0.01	0.07	< 0.01	0.11	< 0.005	0.08	< 0.01	< 0.01	0.02	< 0.02	0.01	8.3	0.04	0.08	0.008	0.037	< 0.005
WS44 - 50B	19.1	0.01	< 0.05	< 0.01	0.08	< 0.005	0.04	< 0.01	0.01	0.02	< 0.02	< 0.01	11.8	0.02	0.04	< 0.005	0.015	< 0.005
WS46 - 0	12.8	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	4.9	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS46 - 50	15.0	0.02	< 0.05	< 0.01	0.06	< 0.005	0.02	< 0.01	< 0.01	< 0.01	< 0.02	0.01	5.4	0.02	0.03	< 0.005	0.013	< 0.005
WS46 - 50B	17.0	0.01	0.07	< 0.01	0.09	< 0.005	0.07	< 0.01	< 0.01	< 0.01	< 0.02	0.02	7.4	0.02	0.04	< 0.005	0.014	< 0.005
WS46 - 100	27.7	0.31	0.91	0.03	0.06	0.010	0.03	< 0.01	0.43	< 0.01	< 0.02	< 0.01	8.9	0.23	0.53	0.061	0.233	0.050
WS48 - 0	13.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	5.0	< 0.01	< 0.01	< 0.005	0.005	< 0.005
WS48 - 50	18.9	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	0.02	< 0.01	< 0.01	< 0.01	< 0.02	0.01	8.4	0.01	0.02	< 0.005	0.009	< 0.005
WS48 - 100	27.4	0.14	0.27	< 0.01	0.07	0.011	0.04	< 0.01	0.59	< 0.01	< 0.02	< 0.01	9.9	0.13	0.26	0.030	0.127	0.022
WS50 - 0B	15.3	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	4.6	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS50 - 50	19.1	0.02	0.13	< 0.01	0.11	< 0.005	0.08	< 0.01	0.02	0.01	< 0.02	0.02	5.6	0.04	0.05	0.007	0.026	< 0.005
WS50 - 50B	26.8	0.02	< 0.05	< 0.01	0.07	< 0.005	0.02	< 0.01	0.02	< 0.01	< 0.02	< 0.01	8.5	0.02	0.04	< 0.005	0.015	< 0.005
WS50 - 100	30.8	0.05	0.08	< 0.01	0.08	< 0.005	0.20	< 0.01	0.61	< 0.01	< 0.02	< 0.01	7.5	0.06	0.12	0.015	0.056	0.012
WS50 - 100B	32.8	0.06	0.07	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.95	< 0.01	< 0.02	< 0.01	7.7	0.06	0.14	0.016	0.063	0.012
WS52 - 0B	20.6	< 0.01	< 0.05	< 0.01	0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	5.2	< 0.01	0.02	< 0.005	0.009	< 0.005
WS52 - 50	21.0	0.03	0.08	< 0.01	0.13	< 0.005	0.09	< 0.01	< 0.01	< 0.01	< 0.02	0.02	5.2	0.03	0.04	< 0.005	0.024	< 0.005
WS52 - 50B	22.7	0.01	< 0.05	< 0.01	0.05	< 0.005	0.03	< 0.01	0.01	< 0.01	< 0.02	< 0.01	6.9	0.01	0.02	< 0.005	0.011	< 0.005
WS52 - 95	45.2	0.05	0.08	< 0.01	0.11	0.006	0.07	< 0.01	0.58	< 0.01	< 0.02	0.01	15.1	0.05	0.11	0.013	0.050	0.009
WS52 - 95B	39.5	0.03	0.06	< 0.01	0.07	< 0.005	0.03	< 0.01	0.40	< 0.01	< 0.02	< 0.01	13.8	0.04	0.07	0.008	0.032	0.008
WS54 - 0	18.1	0.02	0.06	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	5.1	0.01	0.02	< 0.005	0.016	< 0.005
WS54 - 50	26.3	0.03	0.13	< 0.01	0.27	< 0.005	0.07	< 0.01	0.01	< 0.01	< 0.02	0.02	8.7	0.04	0.07	0.008	0.031	0.006
WS54 - 50B	27.5	0.02	< 0.05	< 0.01	0.08	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.2	0.01	0.03	< 0.005	0.013	< 0.005
WS56 - 0	17.8	0.01	< 0.05	< 0.01	< 0.05	< 0.005	0.04	< 0.01	0.02	< 0.01	< 0.02	< 0.01	4.6	0.01	0.04	< 0.005	0.014	< 0.005
WS56 - 50	21.4	0.02	0.10	0.01	0.17	< 0.005	0.03	< 0.01	0.05	0.01	< 0.02	0.02	6.8	0.01	0.03	< 0.005	0.016	< 0.005
WS58 - 0	15.7	0.02	< 0.05	< 0.01	< 0.05	< 0.005	0.06	< 0.01	0.01	< 0.01	< 0.02	< 0.01	4.4	0.01	0.03	< 0.005	0.014	< 0.005
WS60 - 0	19.1	0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.03	< 0.01	< 0.02	< 0.01	6.4	0.01	0.03	< 0.005	0.015	< 0.005
WS60 - 0B	17.4	0.02	< 0.05	< 0.01	< 0.05	< 0.005	0.04	< 0.01	0.03	< 0.01	< 0.02	< 0.01	6.5	0.02	0.05	< 0.005	0.017	< 0.005
WS62 - 0	16.7	0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	0.05	< 0.01	< 0.02	< 0.01	7.4	0.01	0.02	< 0.005	0.012	< 0.005

	Sr	Y	Zr	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba	La	Ce	Pr	Nd	Sm
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
D.L.	0.5	0.01	0.05	0.01	0.05	0.005	0.02	0.01	0.01	0.01	0.02	0.01	0.2	0.01	0.01	0.005	0.005	0.005
REPEATS																		
TB SEP. 2	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
TB SEP. 2 REP	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS9 - 0	14.3	0.01	0.09	< 0.01	0.21	< 0.005	0.16	< 0.01	< 0.01	< 0.01	< 0.02	0.01	10.8	0.03	0.04	< 0.005	0.016	< 0.005
WS9 - 0 REP	14.8	0.01	< 0.05	< 0.01	0.22	< 0.005	0.17	< 0.01	< 0.01	< 0.01	< 0.02	0.01	11.2	0.03	0.05	< 0.005	0.016	< 0.005
WS19 - 60	13.3	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	7.5	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS19 - 60 REP	13.8	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	7.5	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
WS31 - 0	16.7	0.04	0.17	< 0.01	0.05	< 0.005	0.03	< 0.01	< 0.01	0.02	< 0.02	< 0.01	9.0	0.02	0.05	0.007	0.032	0.009
WS31 - 0 REP	17.0	0.03	0.17	< 0.01	0.05	< 0.005	0.03	< 0.01	< 0.01	0.02	< 0.02	< 0.01	9.1	0.02	0.05	0.008	0.033	0.007
WS46 - 50	15.0	0.02	< 0.05	< 0.01	0.06	< 0.005	0.02	< 0.01	< 0.01	< 0.01	< 0.02	0.01	5.4	0.02	0.03	< 0.005	0.013	< 0.005
WS46 - 50 REP	15.4	0.01	0.13	< 0.01	0.06	< 0.005	0.06	< 0.01	0.01	< 0.01	< 0.02	0.01	5.4	0.02	0.03	0.007	0.016	< 0.005
WS54 - 0	18.1	0.02	0.06	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	0.02	< 0.02	< 0.01	5.1	0.01	0.02	< 0.005	0.016	< 0.005
WS54 - 0 REP	17.7	0.02	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	5.1	0.01	0.02	< 0.005	0.015	< 0.005
CONTROLS																		
BLANK	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BLANK	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BLANK	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BLANK	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	0.007	< 0.02	< 0.01	0.16	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BLANK	< 0.5	< 0.01	< 0.05	< 0.01	< 0.05	< 0.005	< 0.02	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.2	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
SLRS-5	56.5	0.11	< 0.05	< 0.01	0.22	< 0.005	< 0.02	< 0.01	< 0.01	0.33	< 0.02	< 0.01	15.1	0.21	0.26	0.052	0.202	0.035
SLRS-5	56.0	0.12	< 0.05	< 0.01	0.21	< 0.005	< 0.02	< 0.01	< 0.01	0.32	< 0.02	< 0.01	15.3	0.21	0.26	0.051	0.200	0.035
CERTIFIED	53.6 ± 1.3						0.0060 ± 0.0014						14.0 ± 0.5					
INFORMATION					0.5					0.3								
TM26.2	104.2	< 0.01	< 0.05	< 0.01	8.51	5.311	7.35	< 0.01	5.22	2.30	< 0.02	< 0.01	26.1	0.08	< 0.01	< 0.005	< 0.005	< 0.005
TM26.2	103.0	< 0.01	< 0.05	< 0.01	8.70	4.926	7.45	< 0.01	5.58	2.33	< 0.02	< 0.01	25.9	0.08	< 0.01	< 0.005	< 0.005	< 0.005
CERTIFIED	98.9 ± 9.8				8.3 ± 2.2		6.8 ± 1.0			2.1 ± 0.61			25. ± 2.5					
INFORMATION						7.00												

	Eu ICP-MS DIRECT ppb	Tb ICP-MS DIRECT ppb	Gd ICP-MS DIRECT ppb	Dy ICP-MS DIRECT ppb	Ho ICP-MS DIRECT ppb	Er ICP-MS DIRECT ppb	Tm ICP-MS DIRECT ppb	Yb ICP-MS DIRECT ppb	Lu ICP-MS DIRECT ppb	Hf ICP-MS DIRECT ppb	Ta ICP-MS DIRECT ppb	W ICP-MS DIRECT ppb	Re ICP-MS DIRECT ppb	Tl ICP-MS DIRECT ppb	Pb ICP-MS DIRECT ppb	U ICP-MS DIRECT ppb
D.L.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01	0.02	0.005	0.005	0.01	0.005
TB AUG. 30	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB AUG. 31	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 6	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 9	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
blank	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.01	< 0.005
blank, w white plastic	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.02	< 0.005	< 0.005	0.03	< 0.005
blank, w black plastic	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
WS1 - 0	0.011	< 0.005	0.034	0.025	< 0.005	0.012	< 0.005	0.011	< 0.005	0.02	< 0.01	2.21	< 0.005	0.014	0.29	0.133
WS1 - 0B	0.005	< 0.005	0.017	0.013	< 0.005	0.007	< 0.005	0.006	< 0.005	0.01	< 0.01	0.32	< 0.005	0.014	0.12	0.105
WS3 - 0	< 0.005	< 0.005	0.010	0.009	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.02	< 0.005	0.006	0.83	< 0.005
WS3 - 0B	< 0.005	< 0.005	0.012	0.009	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.84	< 0.005
WS5 - 0	< 0.005	< 0.005	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.08	< 0.005	< 0.005	0.65	< 0.005
WS5 - 0B	< 0.005	< 0.005	0.007	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.70	< 0.005
WS5 - 60	< 0.005	< 0.005	0.008	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.17	0.007
WS7 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	0.005	0.42	< 0.005
WS7 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	0.016	0.76	< 0.005
WS7 - 50	< 0.005	< 0.005	0.011	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.13	0.006
WS9 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	< 0.005	0.28	< 0.005
WS9 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.18	< 0.005
WS9 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.08	< 0.005	0.007	0.11	< 0.005
WS11 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.31	< 0.005	< 0.005	0.10	< 0.005
WS11 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.11	< 0.005
WS11 - 50	< 0.005	< 0.005	0.009	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.06	< 0.005
WS13 - 0	< 0.005	< 0.005	0.017	0.013	< 0.005	0.007	< 0.005	0.006	< 0.005	< 0.01	< 0.01	0.51	< 0.005	< 0.005	0.11	0.006
WS13 - 0B	< 0.005	< 0.005	0.012	0.010	< 0.005	0.006	< 0.005	0.005	< 0.005	< 0.01	< 0.01	0.07	< 0.005	< 0.005	0.16	0.005
WS13 - 60	< 0.005	< 0.005	0.010	0.010	< 0.005	0.006	< 0.005	0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	< 0.005	0.05	0.007
WS15 -0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.03	< 0.005	< 0.005	0.03	< 0.005
WS15 -0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.14	0.006
WS15 - 70	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.14	< 0.005	< 0.005	0.05	< 0.005
WS17 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.01	< 0.005
WS17 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.03	< 0.005
WS17 - 85	< 0.005	< 0.005	0.009	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.57	< 0.005	0.007	0.06	0.008
WS19 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.08	< 0.005
WS19 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.13	< 0.005
WS19 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.03	< 0.005	< 0.005	0.03	< 0.005
WS21 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.50	< 0.005	< 0.005	0.02	< 0.005
WS21 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.02	< 0.005
WS21 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.06	< 0.005
WS21 - 140	0.041	0.022	0.154	0.112	0.022	0.062	0.009	0.051	0.008	0.03	< 0.01	0.79	< 0.005	< 0.005	0.26	0.078
WS23 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.02	< 0.005
WS23 -0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.02	< 0.005
WS23 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.02	< 0.005
WS25 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.05	< 0.005
WS25 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.09	< 0.005
WS25 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.03	0.022
WS27 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.65	< 0.005	< 0.005	0.11	< 0.005
WS27 - 0 DUP	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.31	< 0.005	< 0.005	0.11	< 0.005
WS27 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.18	< 0.005
WS27 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.02	< 0.005
WS27 80	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.02	0.010
WS29 - 0	< 0.005	< 0.005	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.18	0.008
WS29 -40	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.06	0.011
WS31 - 0	< 0.005	< 0.005	0.007	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.25	0.006
WS33 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.08	0.020
WS35 -0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.06	< 0.005
WS36 - 0	< 0.005	< 0.005	0.009	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.05	< 0.005	0.011	0.68	< 0.005
WS38 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.42	< 0.005	< 0.005	0.55	< 0.005
WS38 - 50	0.010	0.005	0.040	0.028	0.006	0.015	< 0.005	0.014	< 0.005	0.01	< 0.01	0.81	< 0.005	0.005	0.22	0.021
WS40 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.40	< 0.005	< 0.005	0.15	< 0.005
WS40 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.20	< 0.005	< 0.005	0.18	< 0.005
WS40 - 50B	< 0.005	< 0.005	0.010	0.008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	< 0.01	0.02	< 0.005	0.012	0.51	0.010
WS42 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	< 0.01	0.56	< 0.005	< 0.005	0.07	< 0.005
WS42 - 50	< 0.005	< 0.005	0.011	0.009	< 0.005	0.005	< 0.005	< 0.005	< 0.005	0.03	< 0.01	0.54	< 0.005	< 0.005	0.22	0.006
WS42 - 85	0.010	0.007	0.045	0.041	0.008	0.025	< 0.005	0.024	< 0.005	0.09	0.04	0.06	< 0.005	< 0.005	2.26	0.038
WS44 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.02	< 0.005	< 0.005	0.04	< 0.005
WS44 - 50	< 0.005	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	1.52	< 0.005	< 0.005	0.26	0.006
WS44 - 50B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	0.005	0.81	< 0.005
WS46 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.22	< 0.005	< 0.005	0.03	< 0.005
WS46 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.40	< 0.005	< 0.005	0.06	< 0.005
WS46 - 50B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.14	< 0.005
WS46 - 100	0.012	0.008	0.051	0.055	0.012	0.036	0.006	0.040	0.006	0.03	< 0.01	0.03	< 0.005	0.005	0.22	0.056
WS48 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.04	< 0.005
WS48 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.03	< 0.005
WS48 - 100	0.006	< 0.005	0.024	0.023	0.005	0.017	< 0.005	0.018	< 0.005	< 0.01	< 0.01	0.02	< 0.005	< 0.005	0.26	0.022
WS50 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.03	< 0.005
WS50 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.16	0.006
WS50 - 50B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.34	< 0.005
WS50 - 100	< 0.005	< 0.005	0.010	0.010	< 0.005	0.006	< 0.005	0.006	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.13	0.007
WS50 - 100B	< 0.005	< 0.005	0.011	0.010	< 0.005	0.006	< 0.005	0.007	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.16	< 0.005
WS52 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.21	< 0.005
WS52 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.13	< 0.005
WS52 - 50B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	1.01	< 0.005
WS52 - 95	< 0.005	< 0.005	0.009	0.008	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	0.006	0.08	0.007
WS52 - 95B	< 0.005	< 0.005	0.006	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.06	< 0.005
WS54 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	< 0.01	0.42	< 0.005	< 0.005	0.10	< 0.005
WS54 - 50	< 0.005	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.02	< 0.005	0.009	0.22	0.009
WS54 - 50B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	0.011	0.09	< 0.005
WS56 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.61	< 0.005	< 0.005	0.38	< 0.005
WS56 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03	0.03	0.04	< 0.005	< 0.005	0.03	< 0.005
WS58 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.41	< 0.005	< 0.005	0.20	< 0.005
WS60 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.23	< 0.005
WS60 - 0B	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.30	< 0.005
WS62 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.19	< 0.005

	Eu ICP-MS DIRECT ppb	Tb ICP-MS DIRECT ppb	Gd ICP-MS DIRECT ppb	Dy ICP-MS DIRECT ppb	Ho ICP-MS DIRECT ppb	Er ICP-MS DIRECT ppb	Tm ICP-MS DIRECT ppb	Yb ICP-MS DIRECT ppb	Lu ICP-MS DIRECT ppb	Hf ICP-MS DIRECT ppb	Ta ICP-MS DIRECT ppb	W ICP-MS DIRECT ppb	Re ICP-MS DIRECT ppb	Tl ICP-MS DIRECT ppb	Pb ICP-MS DIRECT ppb	U ICP-MS DIRECT ppb
D.L.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01	0.02	0.005	0.005	0.01	0.005
REPEATS																
TB SEP. 2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
TB SEP. 2 REP	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
WS9 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	< 0.005	0.28	< 0.005
WS9 - 0 REP	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.05	< 0.005	< 0.005	0.28	< 0.005
WS19 - 60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.03	< 0.005	< 0.005	0.03	< 0.005
WS19 - 60 REP	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.03	< 0.005	< 0.005	0.03	< 0.005
WS31 - 0	< 0.005	< 0.005	0.007	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.25	0.006
WS31 - 0 REP	< 0.005	< 0.005	0.008	0.007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	0.26	0.007
WS46 - 50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.40	< 0.005	< 0.005	0.06	< 0.005
WS46 - 50 REP	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.41	< 0.005	< 0.005	0.11	< 0.005
WS54 - 0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	< 0.01	0.42	< 0.005	< 0.005	0.10	< 0.005
WS54 - 0 REP	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.42	< 0.005	< 0.005	0.10	< 0.005
CONTROLS																
BLANK	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
BLANK	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
BLANK	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
BLANK	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	0.006
BLANK	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.02	< 0.005	< 0.005	< 0.01	< 0.005
SLRS-5	0.007	< 0.005	0.028	0.020	< 0.005	0.011	< 0.005	0.010	< 0.005	< 0.01	< 0.01	< 0.02	0.064	< 0.005	0.08	0.094
SLRS-5	0.007	< 0.005	0.026	0.020	< 0.005	0.011	< 0.005	0.011	< 0.005	< 0.01	< 0.01	< 0.02	0.065	< 0.005	0.08	0.096
CERTIFIED															0.081 ± 0.006	
INFORMATION																0.1
TM26.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	5.270	10.34	8.037
TM26.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	0.04	< 0.005	5.123	10.02	7.930
CERTIFIED														5.2 ± 1.4	9.9 ± 1.6	
INFORMATION																7.5

	Br	Ca	Cl	Fe	K	Mg	Na	P	S	Sc	Si	Hg
	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	TEKRAN
	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	WATERS
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppt
D.L.	0.05	0.02	0.1	0.005	0.05	0.005	0.05	0.05	0.05	0.001	0.02	0.3
WS1 - 0	< 0.05	51.45	0.3	0.860	3.75	21.631	1.51	0.08	1.13	< 0.001	4.81	6.8
WS1 - 0B	< 0.05	49.12	0.3	0.395	4.28	20.898	1.28	< 0.05	0.80	< 0.001	4.35	4.4
WS3 - 0	< 0.05	7.95	0.4	0.053	0.99	6.161	1.08	< 0.05	0.46	< 0.001	5.20	5.0
WS3 - 0B	< 0.05	8.52	0.5	0.065	2.01	6.924	1.23	< 0.05	0.47	< 0.001	5.17	4.7
WS5 - 0	< 0.05	6.55	0.2	0.026	0.51	4.948	0.87	< 0.05	0.35	< 0.001	3.83	4.2
WS5 - 0B	< 0.05	7.03	0.4	0.030	1.73	5.422	0.90	0.07	0.42	< 0.001	3.93	4.7
WS5 - 60	< 0.05	9.43	0.1	0.206	0.66	5.950	0.92	< 0.05	0.35	< 0.001	4.25	2.7
WS7 - 0	< 0.05	9.73	0.6	0.034	1.77	6.848	0.62	0.12	0.42	< 0.001	3.18	
WS7 - 0B	< 0.05	17.52	1.7	0.059	2.73	13.096	0.72	0.07	0.40	< 0.001	4.86	5.4
WS7 - 50	< 0.05	11.67	0.1	0.450	0.72	7.695	0.77	0.05	0.35	< 0.001	3.27	3.0
WS9 - 0	< 0.05	10.96	0.3	0.076	1.36	7.181	0.58	0.19	0.39	< 0.001	2.45	10.7
WS9 - 0B	< 0.05	11.25	0.2	0.035	0.48	7.370	0.53	< 0.05	0.30	< 0.001	2.30	
WS9 - 60	< 0.05	16.17	0.1	0.721	0.49	8.353	0.54	0.06	0.31	< 0.001	2.88	3.1
WS11 - 0	< 0.05	11.16	0.1	0.055	0.07	7.332	0.45	< 0.05	0.23	< 0.001	2.02	1.8
WS11 - 0B	< 0.05	11.02	< 0.1	0.050	< 0.05	7.245	0.45	< 0.05	0.23	< 0.001	1.98	
WS11 - 50	< 0.05	19.87	< 0.1	0.883	0.27	10.316	0.97	< 0.05	0.24	< 0.001	3.32	1.4
WS13 - 0	< 0.05	16.64	0.2	0.473	0.32	8.921	0.45	< 0.05	0.28	< 0.001	3.26	1.4
WS13 - 0B	< 0.05	19.43	0.8	0.753	0.83	9.107	0.89	< 0.05	0.33	< 0.001	3.51	
WS13 - 60	< 0.05	33.80	< 0.1	1.933	0.53	15.245	0.89	< 0.05	0.25	< 0.001	4.83	1.2
WS15 -0	< 0.05	12.96	0.1	0.029	0.20	8.739	0.49	< 0.05	0.23	< 0.001	2.05	1.8
WS15 -0B	< 0.05	15.69	0.2	0.058	0.64	10.534	0.50	< 0.05	0.24	< 0.001	2.21	
WS15 - 70	< 0.05	19.46	0.1	0.433	0.33	10.721	0.84	< 0.05	0.23	< 0.001	2.95	1.1
WS17 - 0	< 0.05	14.96	0.2	0.011	0.61	10.229	0.46	< 0.05	0.23	< 0.001	2.02	2.4
WS17 - 0B	< 0.05	15.38	0.2	0.016	0.39	10.400	0.46	< 0.05	0.23	< 0.001	2.06	
WS17 - 85	< 0.05	21.51	< 0.1	1.797	0.17	11.291	1.05	< 0.05	0.24	< 0.001	3.09	
WS19 - 0	< 0.05	16.54	0.4	0.070	0.59	10.994	0.48	< 0.05	0.24	< 0.001	2.27	2.0
WS19 - 0B	< 0.05	16.77	0.5	0.041	2.77	11.514	0.49	< 0.05	0.29	< 0.001	2.30	3.8
WS19 - 60	< 0.05	16.70	0.2	0.253	0.07	11.019	0.51	< 0.05	0.21	< 0.001	1.76	1.5
WS21 - 0	< 0.05	17.12	0.3	0.009	0.14	11.679	0.47	< 0.05	0.20	< 0.001	1.95	1.7
WS21 - 0B	< 0.05	17.31	0.2	0.009	0.12	11.780	0.49	< 0.05	0.21	< 0.001	1.92	
WS21 - 60	< 0.05	16.44	0.1	0.110	0.18	10.478	0.45	< 0.05	0.22	< 0.001	2.02	2.1
WS21 - 140	< 0.05	23.52	< 0.1	3.936	0.22	12.492	1.68	< 0.05	0.19	< 0.001	5.36	0.8
WS23 - 0	< 0.05	16.30	0.1	0.031	0.12	10.915	0.61	< 0.05	0.20	< 0.001	1.89	1.8
WS23 -0B	< 0.05	16.36	0.2	0.038	0.17	10.850	0.61	< 0.05	0.21	< 0.001	1.92	
WS23 - 60	< 0.05	16.78	0.1	0.317	0.08	10.889	0.57	< 0.05	0.20	< 0.001	1.87	1.1
WS25 - 0	< 0.05	17.19	0.1	0.006	0.06	10.520	0.72	< 0.05	0.21	< 0.001	1.80	
WS25 - 0B	< 0.05	17.34	0.1	0.007	0.07	10.706	0.74	< 0.05	0.22	< 0.001	1.80	
WS25 - 60	< 0.05	21.30	< 0.1	1.601	< 0.05	11.150	0.77	< 0.05	0.23	< 0.001	2.40	1.4
WS27 - 0	< 0.05	19.42	0.1	< 0.005	0.22	10.981	0.73	< 0.05	0.25	< 0.001	1.84	3.4
WS27 - 0 DUP	< 0.05	19.52	0.1	< 0.005	0.22	10.897	0.74	< 0.05	0.25	< 0.001	1.83	3.4
WS27 - 0B	< 0.05	20.33	0.4	< 0.005	0.95	11.381	0.73	< 0.05	0.35	< 0.001	2.01	
WS27 - 60	< 0.05	23.72	< 0.1	0.039	0.14	12.558	0.86	< 0.05	0.22	< 0.001	1.73	1.4
WS27 80	< 0.05	52.85	< 0.1	2.093	0.33	21.334	2.43	< 0.05	0.17	< 0.001	4.98	0.9
WS29 - 0	< 0.05	14.89	0.2	0.022	0.86	8.150	0.91	0.15	0.38	< 0.001	2.72	10.7
WS29 -40	< 0.05	20.01	< 0.1	0.047	0.41	9.762	0.95	0.07	0.31	< 0.001	2.70	5.5
WS31 - 0	< 0.05	19.28	0.2	0.009	0.65	9.985	1.12	< 0.05	0.44	< 0.001	2.77	5.6
WS33 - 0	< 0.05	36.66	0.1	0.014	0.21	18.724	0.75	0.07	0.38	< 0.001	1.60	4.9
WS35 -0	< 0.05	31.18	0.4	< 0.005	0.77	18.835	0.68	0.07	0.40	< 0.001	1.36	5.7
WS36 - 0	< 0.05	12.39	0.8	0.349	2.52	8.334	1.48	0.09	0.36	< 0.001	5.38	
WS38 - 0	< 0.05	13.06	0.2	0.196	0.94	8.508	0.69	< 0.05	0.25	< 0.001	3.21	2.3
WS38 - 50	< 0.05	22.01	0.1	2.596	1.41	12.336	0.86	0.22	0.40	< 0.001	4.79	
WS40 - 0	< 0.05	15.23	0.2	0.034	1.03	9.595	0.53	< 0.05	0.26	< 0.001	3.34	2.5
WS40 - 50	< 0.05	16.93	0.2	0.230	0.77	10.324	0.64	0.07	0.27	< 0.001	2.92	2.6
WS40 - 50B	< 0.05	23.39	0.7	0.769	1.90	13.121	1.41	0.29	0.47	< 0.001	3.41	
WS42 - 0	< 0.05	17.60	0.3	0.031	0.65	11.928	0.65	< 0.05	0.26	< 0.001	3.09	2.3
WS42 - 50	< 0.05	19.60	0.2	1.128	0.64	11.353	0.71	0.11	0.35	< 0.001	2.28	3.5
WS42 - 85	0.06	27.94	0.3	0.902	0.68	13.992	1.56	0.19	0.49	< 0.001	4.60	
WS44 - 0	< 0.05	16.15	0.3	0.017	0.13	11.163	0.55	< 0.05	0.20	< 0.001	1.96	1.5
WS44 - 50	< 0.05	16.08	0.6	0.295	1.21	10.844	0.78	0.12	0.36	< 0.001	1.91	
WS44 - 50B	< 0.05	20.54	0.7	0.297	1.73	13.719	0.91	0.11	0.43	< 0.001	2.59	
WS46 - 0	< 0.05	15.47	0.2	0.007	0.17	10.619	0.46	< 0.05	0.20	< 0.001	2.03	1.4
WS46 - 50	< 0.05	16.27	< 0.1	0.285	0.22	9.777	0.68	0.07	0.22	< 0.001	1.29	
WS46 - 50B	< 0.05	17.13	0.2	0.330	0.44	10.679	0.65	0.09	0.28	< 0.001	1.22	
WS46 - 100	< 0.05	33.07	< 0.1	1.135	0.53	12.529	2.28	0.09	0.27	< 0.001	4.59	2.9
WS48 - 0	< 0.05	15.86	0.1	< 0.005	0.14	11.004	0.49	< 0.05	0.20	< 0.001	2.02	1.7
WS48 - 50	< 0.05	15.89	< 0.1	0.822	0.13	8.796	0.76	< 0.05	0.26	< 0.001	1.84	2.3
WS48 - 100	< 0.05	32.71	0.1	0.187	0.34	14.729	2.08	0.16	0.44	< 0.001	3.28	4.2
WS50 - 0B	< 0.05	15.32	0.2	0.005	0.13	10.448	0.65	< 0.05	0.22	< 0.001	2.01	1.7
WS50 - 50	< 0.05	16.66	0.5	0.100	1.11	10.307	0.97	0.19	0.49	< 0.001	1.72	
WS50 - 50B	< 0.05	18.25	< 0.1	0.646	0.15	10.341	1.55	< 0.05	0.23	< 0.001	1.72	
WS50 - 100	< 0.05	29.61	0.1	0.331	0.64	12.534	1.82	0.11	0.28	< 0.001	1.64	2.6
WS50 - 100B	< 0.05	32.31	0.1	0.396	0.27	12.351	1.92	< 0.05	0.18	< 0.001	1.65	
WS52 - 0B	< 0.05	15.07	0.2	0.027	0.42	9.947	0.72	< 0.05	0.24	< 0.001	2.08	2.1
WS52 - 50	< 0.05	16.85	0.2	0.075	0.66	10.492	1.10	0.18	0.45	< 0.001	1.69	
WS52 - 50B	< 0.05	18.23	0.3	0.061	0.60	11.337	1.17	0.07	0.30	< 0.001	1.93	
WS52 - 95	< 0.05	34.86	0.5	0.787	2.35	14.208	2.28	0.19	0.47	< 0.001	3.86	5.1
WS52 - 95B	< 0.05	30.17	0.4	0.791	1.72	14.151	2.33	0.13	0.35	< 0.001	4.04	
WS54 - 0	< 0.05	14.56	0.3	0.020	0.27	8.865	0.89	< 0.05	0.29	< 0.001	2.27	2.7
WS54 - 50	< 0.05	21.26	0.2	0.298	0.63	12.410	1.70	0.32	0.72	< 0.001	2.70	
WS54 - 50B	< 0.05	20.37	0.2	0.523	0.23	12.097	1.55	0.06	0.36	< 0.001	2.65	
WS56 - 0	< 0.05	13.57	0.1	0.021	0.13	10.334	0.98	< 0.05	0.30	< 0.001	2.05	2.9
WS56 - 50	< 0.05	14.19	0.2	0.113	0.30	9.024	1.21	0.13	0.50	< 0.001	2.47	
WS58 - 0	< 0.05	10.89	0.1	0.044	0.16	8.020	0.95	< 0.05	0.37	< 0.001	1.81	3.9
WS60 - 0	< 0.05	12.27	0.2	0.044	0.61	9.526	1.42	< 0.05	0.39	< 0.001	2.67	6.4
WS60 - 0B	< 0.05	11.18	0.3	0.059	0.28	8.340	1.46	< 0.05	0.41	< 0.001	2.44	
WS62 - 0	< 0.05	15.53	0.1	0.027	0.15	9.326	1.41	< 0.05	0.41	< 0.001	2.00	4.0

	Br ICP-ES DIRECT ppm	Ca ICP-ES DIRECT ppm	Cl ICP-ES DIRECT ppm	Fe ICP-ES DIRECT ppm	K ICP-ES DIRECT ppm	Mg ICP-ES DIRECT ppm	Na ICP-ES DIRECT ppm	P ICP-ES DIRECT ppm	S ICP-ES DIRECT ppm	Sc ICP-ES DIRECT ppm	Si ICP-ES DIRECT ppm	Hg TEKRAN WATERS ppt
D.L.	0.05	0.02	0.1	0.005	0.05	0.005	0.05	0.05	0.05	0.001	0.02	0.3
TB AUG. 30	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	0.02	< 0.3
TB AUG. 31	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	< 0.3
TB SEP. 1	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	< 0.3
TB SEP. 2	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
TB SEP. 3	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
TB SEP. 4	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
TB SEP. 6	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
TB SEP. 8	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
TB SEP. 9	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
blank	< 0.05	0.04	< 0.1	< 0.005	< 0.05	0.009	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
blank, w white plastic	< 0.05	1.80	< 0.1	< 0.005	< 0.05	0.033	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
blank, w black plastic	< 0.05	0.24	< 0.1	< 0.005	< 0.05	0.135	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	
REPEATS												
TB SEP. 8	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	4.7
TB SEP. 8 REP	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	4.6
WS5 - 0B	< 0.05	7.03	0.4	0.030	1.73	5.422	0.90	0.07	0.42	< 0.001	3.93	3.8
WS5 - 0B REP	< 0.05	7.15	0.3	0.029	1.70	5.502	0.90	0.07	0.42	< 0.001	3.90	4.0
WS17 - 85	< 0.05	21.51	< 0.1	1.797	0.17	11.291	1.05	< 0.05	0.24	< 0.001	3.09	1.4
WS17 - 85 REP	< 0.05	21.65	< 0.1	1.801	0.18	11.315	1.06	< 0.05	0.24	< 0.001	3.10	1.4
WS27 - 60	< 0.05	23.72	< 0.1	0.039	0.14	12.558	0.86	< 0.05	0.22	< 0.001	1.73	4.9
WS27 - 60 REP	< 0.05	23.50	< 0.1	0.037	0.14	12.535	0.87	< 0.05	0.23	< 0.001	1.74	4.9
WS42 - 0	< 0.05	17.60	0.3	0.031	0.65	11.928	0.65	< 0.05	0.26	< 0.001	3.09	2.3
WS42 - 0 REP	< 0.05	17.28	0.3	0.037	0.65	11.816	0.65	< 0.05	0.25	< 0.001	3.11	2.4
WS54 - 0	< 0.05	14.56	0.3	0.020	0.27	8.865	0.89	< 0.05	0.29	< 0.001	2.27	6.4
WS54 - 0 REP	< 0.05	14.60	0.2	0.020	0.27	8.881	0.89	< 0.05	0.28	< 0.001	2.25	6.4
CONTROLS												
BLANK	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	< 0.3
BLANK	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	< 0.3
BLANK	< 0.05	< 0.02	< 0.1	< 0.005	< 0.05	< 0.005	< 0.05	< 0.05	< 0.05	< 0.001	< 0.02	< 0.3
ONTARIO-99	< 0.05	35.82	20.6	< 0.005	1.60	8.516	12.71	< 0.05	8.81	< 0.001	0.55	7.7
CERTIFIED		35.4 ± 2.2	20.8 ± 1.4		1.5 ± 0.16	8.6 ± 0.59	12.7 ± 1.1		8.7 ± 0.7		0.53 ± 0.07	7.8
INFORMATION												7.7
SLRS-5	< 0.05	10.26	6.7	0.093	0.89	2.506	5.11	< 0.05	2.35	< 0.001	1.98	
CERTIFIED (ppm)		10.5 ± 0.4			0.839 ± 0.036	2.54 ± 0.16	5.38 ± 0.1					
CERTIFIED (ppb)				91.2 ± 5.8								
TMDA-51.3	< 0.05	14.25	10.4	0.108	0.67	3.445	5.05	< 0.05	4.15	< 0.001	0.25	
CERTIFIED (ppb)				109 ± 13.2								

Appendix 2: Field Water Chemistry

			Handheld	Flowing start	Flowing end	DO Probe up	DO Probe down											
Sample	Temperature 1 °C	Temperature 2 °C	B mmHg	B mmHg	DO %	DO %	DO mg/L	DO mg/L	C µS/cm	C µS/cm	pH	pH	ORP mV	ORP mV	Mn mg/L	Fe mg/L	S mg/L	Alk mg/L
ws1-0	13		725		1.4		0.2		305		6.45		140			0.18		170
ws1-0B	14.1	15.1	722	721.8	11.1	0.6	1.15	0.06	184	351.7	6.5	6.47	71	49.4	0.8	0.26	0.43	120
ws3-0	13.5	14.7	724		3.9		0.4		63		5.8		193			0.28		35
ws3-0B	13.1	13.7	722	722	8.1	0.5	0.85	0.05	77.8	77.3	5.7	5.8	118	113.3	0.276	0.09	0.03	45
ws5-0	10.1		724		3	10	1		43	49	6		230			0		30
ws5-0B	11.2	11.4	722	722	8.9	3.7	0.98	0.4	58.7	59	5.9	5.8	122	132	0.444	0.11	0.04	40
ws7-0	12.7	15.7	716.7		10.5		1.1		91	96	6.3	6.38	160.9	175				
ws7-0																0		55
ws7-0B	12.9		723		0.1		0.01		177		6.3		976		0.8	0.23	0.3	70
ws7-50B	15.1	14.8	723	722	14.9	13	1.15	1.3	93	91.8	6	6	88	82	0.269	0.24	0.07	50
ws9-0	19.1		716.8		14.7		1.5		103.7		6.43		114.1					
ws9-0B	11.3	11.5	721.4	721.5	5.4	0	0.58	0	88.8	90.3	6.32	6.3	145.7	141.1	0.791	0.18	0.04	60
ws9-60	12.5	13.4	733	733	4	3.7	0.4	0.4	116	116	6.1	6.14	65	58	0.323	0.71	0.04	100
ws11-0	12		725		3.1		0.34		80		6.47		163			0.01		30
ws11-0B	12	11.6	721	720.9	13.4	3.2	1.45	0.35	81.8	82.5	6.43	6.4	221.6	187.3	0.417	0.11	0	50
ws11-60	11.7	12.7	733	733	2.3	3.6	0.25	0.4	148	144	6.2	6.3	56	34.1	0.198	0.84	0.01	110
ws13-0	13.6		725		9		0.9		119		6.6		110			0.36		40
ws13-0B	13.8	13.9	719.7	719.7	7.4	5.1	0.77	0.52	143.9	141.4	6.55	6.56	81.5	75.7	0.57	0.38	0	80
ws13-60	12.8		733		4.3		0.46		257		6.3		23		0.332	1.6	0.01	120
WS15-0	13.5		725		6.7		0.7		98		6.7		175			0.07		80
ws15-0B	13.6	13.5	719.7	719.8	5.7	3.5	0.59	0.36	141.7	136.8	6.69	6.67	140.6	134	limit	0.09	0.01	80
ws15-70	12.5	12.4	732.3	732.3	2.7	2.6	0.3	0.27	145.6	143.8	6.39	6.38	48.2	38.2	0.286	0.41	0.02	100
ws17-0	13.1		725						119		6.9		170			0.09		90
ws17-0B	12.4	12.4	719.8	719.7	1.7	1.6	0.17	0.17	132.2	132.2	6.74	6.74	175.4	174.1	0.1	0.03	0	100
ws17-85	12.2	12.2	733	733	5.4	5.7	0.58	0.61	159	158.1	6.2	6.2	34	30.6	0.31	1.42	0.03	100
ws19-0	14.6		725		2.8		0.29		129		6.7		138			0.05		80
ws19-0B	13	13.3	719.9	719.7	3.4	5.6	0.33	0.59	147.9	142.9	6.65	6.64	169	155.4	limit	0.2	0.09	120
ws19-60	13.3		732.5		4.7		0.49		141.6		6.26		48.2		11.6	0.2	0.03	100
ws21-0	13.1	16.2	725		12.2		1.27		133	151	6.9	6.85	166	400		0.08		90
ws21-0B	12.6	12.7	719.9	719.9	12.6	8.5	1.3	0.92	142.3	141.1	6.8	6.6	209.6	205	limit	0.16	0.03	100
ws21-60	13.1	13	730	730	5.1	4.7	0.54	0.5	127	126.3	6.2	6.2	89	84	0.216	0.12	0.03	80
ws21-140	9.4		732.5		3.5		0.41		178.4		6.07		62.1		0.399	2.73	0.55	80
ws23-0	13.3	18	725		17.2		1.8		127	144	6.9	6.93	162	371		0		110
ws23-0B	12.5	12.8	720.3	720.2	15.3	16.1	1.63	1.68	134.8	135.7	6.79	6.81	212	206	limit	0.03	0.03	100
ws23-60	13.1	12.1	730	729.1	3.3	3.1	0.35	0.34	133	133	6.45	6.46	55.8	41.4	0.586	0.27	0.02	150
ws25-0	12		725		8				123		6.8		150			0		110
ws25-0B	11.8	11.7	720.6	720.4	16	8.2	1.72	0.75	179.8	138.8	6.75	6.71	192.4	190.8	0.192	0.04	0.02	140
ws25-60	14.9	14.9	728.4	728.4	8.7	7.9	0.88	0.8	162	162	6.24	6.23	34.3	29.6	0.153	1.37	0.02	120
ws27-0	11	12.9	733		7		0.8		144	161	6.7		157		0.38	0.05	6.01	80
ws27-0B	11.8	11.8	720.7	720.7	6.3	0.1	0.68	0.01	149.4	149.4	6.69	6.69	169	157.7	0.17	0.08	0.01	120
ws27-60	11.2	11.2	727.9	727.9	3	3	0.33	0.33	159.9	157.6	6.42	6.43	93.3	81.6	0.028	0.05	0.01	150
ws27-80	18.1	18.2	727	727	23.3	20.3	2.2	1.9	399	399.6	6.6	6.6	22.4	19.2	0.3	1.72	0.02	210
ws29-0	9	10.6	733		13.8		1.6		98	116	6.55		137		0.362	0.07	0.13	70
ws29-40	22.4	12.8	726	726	71.5	10	6.18	1	176	131.5	6.7	6.35	232	181	0.128	0.06	0.03	110
ws31-0	9.9	9.7	727	727	3.3	1.9	0.36	0.22	128	118.3	6.6	6.6	174	165	0.39	0.15	0.26	90
ws33-0	10	10.5	726.5	726.5	4.8	4.5	0.34	0.5	256	256	6.86	6.9	209	205	0.394	0.07	0.07	180
ws35-0	11.9		726		12		1.3		241		6.7		219		0.306	0.06	0.08	160
ws36-0	12.6	12.7	720	720	3.4	4.3	0.37	0.45	144	115	6	6.1	60	75	0.081	0.18	0	80
ws38-0	11.5	11.9	720		1.8		0.19		102	125	6.3	6.4	71.1		0.127	0.1	0	100
ws38-50	13.3	11.5	722.3	722.3	8.2	8.2	0.86	0.86	166	166	6.13	6.13	46.5	46.5	0.165	0.88	0.12	
ws40-0	12.6	12.6	720.9	720.8	5.2	1	0.54	0.1	117.3	110.3	6.5	6.49	93.2	97.5	0.044	0.08	0	80
ws40-50	12.4	11.4	723	723		8		0.87	124	122	6.2	6.3	23	53	0.058	0.11	0	
ws40-50B	15.3	14							201		6.32		164					
ws42-0	13.8	13.8	720.9	720.9	15.2	10.8	1.52	1.11	154.5	147.5	6.68	6.74	140.4	141.8	0.071	0.06	0	150
ws42-50	12.5	12.4	722.2	723.2	8.9	12.2	0.93	1.3	139.8	138.9	5.94	6.03	109.1	86.8	0.228	0.45	0.01	
ws42-85																		
ws44-0	12.6	13	721.1	721.2	9.5	15.4	1.01	1.63	135.1	134.1	6.57	6.67	151.6	142	0.075	0	0.05	100
ws44-50	12.9	12.5	723	723	5.2	7.3	0.55	0.76	135	132	6.2	6.2	110	117		0.03	0.11	
ws44-50B																		
ws46-0	12.8	12.8	721.4	721.4	9.8	3.3	1.04	0.35	128.2	114.2	6.6	6.64	168.1	163.8	0.08	0	0	100
ws46-0B	12.9	12.7							146		6.65		419	420				
ws46-50	14	13.5	723.6	723.7	13	22.5	1.4	2.5	126.9	128	6.01	6.06	143.2	132.4	0.148	0.1	0.01	
ws46-100	12.9	12.2							241	237	6.27		175		0.22	0.5	0	130
ws48-0	12.7	12.7	721.7	721.6	20.9	8.2	2.22	0.86	127.3	128.2	7.02	6.93	130.9	139.8	0.007	0.04	0	70
ws48-50	14	12.1	723.6	724	6.7	16	0.7	1	127.8	119	6.03	6		90	0.4	0.51	0.01	
ws48-50B																		
ws48-100	11.8	11.8							257	273	6.25	6.3	270	239	0.222	0.12	0.04	150
ws50-0	12.9	12.8	721.9	722	17.6	2.9	1.86	0.3	117.2	119.7	6.61	6.53	234	223.5	0.037	0	0	70
ws50-0B	12.3	12							146		6.82		241		0.031	0.01	0	100
WS50-50	11.9	11.3							165		6.3		180		0.094	0.01	0.06	100
ws50-50B	14.4	13.7							155		6.31		174					
ws50-100	12.5								240		6.3		235		0.152	0.16	0.02	140
ws52-0	12.1	12	722.1	722	18.3	13	1.95	1.32	104	105	6.61	6.62	217.2	215.6	0.046	0.11	0	90
ws52-0	11.8	11.9							137		6.86		251		0.232	0.08	0.01	110
ws52-50	12.7	13.5							143		6.35		260		0.095	0.01	0	100
ws52-50B	14	14.2							170	170	6.21		206					
ws52-95	11.9	11.6							273		6.31	6.32	181		0.459	0.37	0.02	140
ws54-0	12.2	12.2	722	722	12.5	8.1	1.35	0.88	106.4	105.1	6.56	6.55	260.7	255.8	0.041	0.06	0	70
ws54-50	16.1	15.9							171	179	6.5		224	227	0.18	0.06	0.01	100
ws54-50B	14.2	13.9							182		6.4		238					
ws56-0	11.3	11.2	722.1	722.1	13.5	3	1.48	0.3	77.5	106.9	6.55	6.5	275.4	258.6	0.172	0	0	90
ws58-0	10.5	10.5	722.1	722.1	19.8	5.1	2.19	0.57	82.8	79.9	6.32	6.27	273.7	262.5	0.075	0	0	80
ws60-0	10.7	10.7							118	111	6.57	6.6	234	237	0.089	0	0.01	70
ws60-0	9.3	9.2							97		6.44		172		0.055	0.05	0.02	60
ws62-0	9.4	9.4							124		6.56		192		0.05	0.01	0.01	80

Appendix 3: Lab Water Chemistry Results

	pH meter DIRECT unit	Conductivity meter DIRECT µS/cm	DOC SHIMADZU DIRECT ppm	Alkalinity PC-Titrate as CaCO3 ppm
D.L.	0.1	10	1	1
WS1 - 0	8.0	342	66	199
WS1 - 0B	8.1	334	64	202
WS3 - 0	7.7	61	56	18
WS3 - 0B	7.8	70	59	24
WS5 - 0	7.7	53	45	16
WS5 - 0B	7.6	60	45	17
WS5 - 60	7.5	69	46	30
WS7 - 0	7.4	84	38	36
WS7 - 0B	7.8	163		
WS7 - 50	7.5	90	40	44
WS9 - 0	7.6	91	32	42
WS9 - 60	7.5	117	34	62
WS11 - 0	7.6	89	29	47
WS11 - 0B	7.8	91		
WS11 - 50	7.7	148	31	82
WS13 - 0	7.8	126	27	68
WS13 - 0B	7.9	148		
WS13 - 60	8.1	247	29	139
WS15 - 0	8.0	108	26	56
WS15 - 0B	7.9	131		
WS15 - 70	7.9	152	28	82
WS17 - 0	8.0	130	25	71
WS17 - 0B	8.0	133		
WS17 - 85	7.9	161	30	90
WS19 - 0	8.0	144	25	76
WS19 - 0B	8.0	154		
WS19 - 60	8.0	141	25	75
WS21 - 0	8.0	147	23	80
WS21 - 60	7.9	137	24	74
WS21 - 140	7.9	184	26	103
WS23 - 0	8.0	141	24	75
WS23 - 0B	8.0	143		
WS23 - 60	8.1	144	24	78
WS25 - 0	8.1	140	25	76
WS25 - 0B	8.0	139		
WS25 - 60	8.1	158	28	88
WS27 - 0	8.1	149	26	85
WS27 - 0 DUP	7.9	150	26	82
WS27 - 0B	7.9	164		
WS27 - 60	8.0	183	28	103
WS27 - 80	8.2	361	29	221
WS29 - 0	8.0	107	35	54
WS29 - 40	7.9	141	35	74
WS31 - 0	7.9	136	40	71
WS33 - 0	8.1	278	30	161
WS35 - 0	8.1	262	30	152
WS36 - 0	8.0	117	30	58
WS38 - 0	8.0	112	30	56
WS38 - 50	7.8	179	32	95
WS40 - 0	7.9	124	30	66
WS40 - 50	7.9	140	31	73
WS42 - 0	7.9	154	29	84
WS42 - 50	7.9	151	35	81
WS42 - 85	7.8	216	32	121
WS44 - 0	8.0	148	25	80
WS44 - 50	7.9	147	26	79
WS44 - 50B	7.9	196		
WS46 - 0	8.0	143	24	78
WS46 - 50	7.9	139	27	74
WS46 - 50B	7.9	152		
WS46 - 100	8.0	241	32	136
WS48 - 0	8.0	145	24	78
WS48 - 50	7.9	129	28	70
WS48 - 100	7.9	246	38	137
WS50 - 0B	8.0	140	26	80
WS50 - 50	7.9	151	28	78
WS50 - 50B	7.9	152		
WS50 - 100	7.9	228	33	126
WS50 - 100B	7.9	238		
WS52 - 0B	8.0	136	28	73
WS52 - 0	8.0	125		
WS52 - 50	7.9	152	28	87
WS52 - 50B	7.9	161		
WS52 - 95	7.8	266	34	148
WS52 - 95B	8.0	244		
WS54 - 0	7.9	122	31	63
WS54 - 50	7.9	173	38	91
WS54 - 50B	8.0	169		
WS56 - 0	8.1	125	33	66
WS56 - 50	7.7	117	36	58
WS58 - 0	7.8	95	37	47
WS60 - 0	7.8	114	43	58
WS60 - 0B	7.8	96	41	37
WS62 - 0	7.8	122	42	61

	pH meter DIRECT unit		Conductivity meter DIRECT µS/cm		DOC SHIMADZU DIRECT ppm		Alkalinity PC-Titrate as CaCO3 ppm
D.L.	0.1		10		1		1
		CONTROLS		REPEATS		REPEATS	
				WS1 - 0B	64	WS19 - 60	75
		ONTARIO-99	301	WS1-0B REP	64	WS19 - 60 REP	77
		ONTARIO-99	298	WS17 - 85	30	WS40 - 0	66
		ONTARIO-99	298	WS17-85 REP	32	WS40 - 0 REP	65
		CERTIFIED (ppm)	306. ± 16.	WS38 - 50	32	WS52 - 0B	73
				WS38-50 REP	33	WS52 - 0B REP	70
				WS44 - 0	25		
				WS44-0 REP	25		
				CONTROLS		CONTROLS	
						BLANK	< 1
				BLANK	< 1		
				BLANK	< 1	HAMILTON-20	104
				BLANK	< 1	CERTIFIED (ppm)	103 ± 4.4
				BLANK	< 1		
				TROIS-94	5		
				TROIS-94	5		
				TROIS-94	5		
				TROIS-94	5		
				CERTIFIED	5.6 ± 1.0		

Appendix 4: AA5 Leach Results

	Ag ICP-MS 1M NH4OAc 2 hr pH 5.0	Ag ICP-MS Aqua Regia	Ag ICP-MS Sum	Al ICP-ES 1M NH4OAc 2 hr pH 5.0	Al ICP-ES Aqua Regia	Al ICP-ES SUM	As ICP-MS 1M NH4OAc 2 hr pH 5.0	As ICP-MS Aqua Regia	As ICP-MS Sum	B ICP-MS 1M NH4OAc 2 hr pH 5.0	B ICP-MS Aqua Regia	B ICP-MS Sum	Ba ICP-MS 1M NH4OAc 2 hr pH 5.0	Ba ICP-MS Aqua Regia	Ba ICP-MS Sum
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.004	0.01	0.01	8	20	28	0.08	0.2	0.3	0.4	1	1	0.2	0.4	0.6
CS 1-1 0-10cm	< 0.004	0.04	0.04	48	7378	7425	0.09	0.6	0.7	2.8	11	14	106.8	188.1	294.9
CS 5-1 0-10cm	< 0.004	0.06	0.06	< 8	1172	1176	0.39	2.9	3.3	0.8	8	9	22.7	27.4	50.1
CS 9-1 0-10cm	< 0.004	0.03	0.03	< 8	475	479	0.81	2.7	3.5	1.3	8	9	40.4	47.4	87.8
CS 9-1 55-61cm	< 0.004	0.06	0.06	36	3889	3925	0.09	1.2	1.2	1.4	8	10	35.0	67.7	102.6
CS 11-1 0-10cm	< 0.004	0.03	0.03	< 8	906	913	0.68	4.9	5.6	1.2	8	9	29.9	46.0	75.9
CS 11-1 44-47cm	< 0.004	0.09	0.09	93	18290	18383	< 0.08	1.2	1.3	0.6	7	8	61.7	135.7	197.4
CS 13-1 0-5cm	< 0.004	0.05	0.05	10	679	690	3.67	5.2	8.9	1.5	5	7	31.8	28.8	60.5
CS 13-1 45-49cm	< 0.004	0.08	0.08	27	4829	4856	0.17	2.1	2.3	1.3	8	9	30.8	61.1	91.9
CS 17-1 0-5cm	< 0.004	0.03	0.03	< 8	596	598	0.21	1.9	2.2	0.8	9	10	13.1	20.7	33.8
CS 17-1B 70-75 cm	< 0.004	0.10	0.10	118	9797	9915	< 0.08	1.4	1.5	< 0.4	4	4	40.0	79.6	119.6
CS 19-1 0-10cm	< 0.004	0.03	0.03	< 8	991	994	1.85	5.7	7.6	1.3	10	11	29.0	48.1	77.0
CS 19-1 59-64cm	< 0.004	0.02	0.02	< 8	675	675	0.09	1.3	1.4	< 0.4	4	4	15.8	24.6	40.4
CS 21-1 0-10cm	< 0.004	0.02	0.02	< 8	1083	1088	0.84	4.9	5.7	1.4	13	14	36.6	64.4	101.0
CS 21-1 59-62cm	< 0.004	0.03	0.03	17	2827	2843	< 0.08	0.8	0.8	0.9	5	6	16.6	20.8	37.4
CS 21-1 89-94cm	< 0.004	0.07	0.06	64	5128	5192	< 0.08	1.2	1.2	0.6	5	6	26.2	42.5	68.7
CS 23-1 0-10cm	< 0.004	0.04	0.03	< 8	604	610	3.29	8.3	11.6	1.7	9	10	65.0	86.2	151.1
CS 25-1A 0-10cm	< 0.004	0.03	0.03	< 8	640	643	0.83	2.7	3.5	1.6	7	9	32.9	43.5	76.5
CS 25-1 23-28cm	< 0.004	0.03	0.03	< 8	774	773	0.34	1.8	2.1	1.1	9	10	23.9	44.1	68.0
CS 25-1 58-63cm	< 0.004	0.06	0.06	9	1108	1117	< 0.08	0.9	0.9	1.4	9	10	28.4	44.4	72.9
CS 27-1 0-5cm	< 0.004	0.01	< 0.01	9	829	838	0.35	2.7	3.1	1.7	11	12	23.0	34.7	57.8
CS 27-1 56-66cm	< 0.004	0.05	0.05	9	1438	1447	0.13	0.4	0.6	1.3	9	10	34.5	49.1	83.5
CS 38-1 28-33cm	< 0.004	0.06	0.06	28	3047	3075	0.78	2.5	3.3	0.9	7	8	17.8	30.8	48.6
CS 38-1 38-43cm	< 0.004	0.09	0.09	70	11718	11788	0.27	1.7	2.0	0.9	8	9	35.7	66.6	102.3
CS 42-1 0-8cm	< 0.004	0.03	0.03	< 8	647	654	0.85	3.6	4.4	1.1	7	9	19.6	26.7	46.4
CS 42-1 48-53cm	< 0.004	0.09	0.09	25	2326	2352	0.10	0.9	1.0	< 0.4	3	3	27.0	41.2	68.2
CS 42-1 85-95cm	< 0.004	0.13	0.13	67	14143	14209	0.09	1.6	1.7	< 0.4	7	8	31.7	50.6	82.3
CS 46-1 10-20cm	< 0.004	0.03	0.03	< 8	1308	1314	1.36	4.5	5.8	1.3	10	11	17.8	28.4	46.2
CS 46-1 50-60cm	< 0.004	0.03	0.03	< 8	793	799	0.11	1.5	1.6	< 0.4	4	4	12.2	18.4	30.7
CS 46-1 97-107cm	< 0.004	0.08	0.08	32	2052	2084	0.12	1.5	1.6	< 0.4	2	2	18.5	28.9	47.4
CS 48-1 12-18cm	< 0.004	0.03	0.03	< 8	638	642	0.56	3.2	3.8	0.9	8	9	15.5	23.2	38.7
CS 48-1 100-105cm	< 0.004	0.07	0.07	16	1533	1549	0.11	1.6	1.8	< 0.4	3	3	21.3	33.5	54.7
CS 50-1 15-23cm	< 0.004	0.03	0.03	< 8	1192	1200	0.77	3.1	3.9	1.2	9	10	18.3	28.4	46.7
CS 50-1 64-74cm	< 0.004	0.02	0.02	< 8	589	595	0.10	1.2	1.3	< 0.4	3	4	14.1	20.3	34.5
CS 50-1 104-114cm	< 0.004	0.08	0.08	19	950	969	0.11	1.5	1.6	< 0.4	2	2	17.4	24.6	41.9
CS 52-1 6-13cm	< 0.004	0.04	0.04	< 8	1118	1126	0.79	4.0	4.8	1.2	11	12	13.7	25.1	38.8
CS 52-1 49-54cm	< 0.004	0.03	0.03	< 8	647	654	0.25	1.4	1.6	< 0.4	4	4	19.7	27.8	47.6
CS 52-1 94-98cm	< 0.004	0.06	0.06	17	1443	1460	0.09	1.3	1.4	< 0.4	4	4	19.6	28.5	48.1
CS 54-1 10-23cm	< 0.004	0.02	0.02	< 8	602	606	0.43	1.8	2.2	0.7	9	10	12.7	19.0	31.7
CS 56-1 13-18cm	< 0.004	0.04	0.04	< 8	1108	1116	1.07	4.1	5.2	1.2	9	10	14.1	24.3	38.4
CS 56-1 48-53cm	< 0.004	0.03	0.03	< 8	724	730	0.10	0.5	0.6	0.5	6	7	16.7	24.4	41.1
CS 58-1 10-22cm	< 0.004	0.03	0.03	< 8	708	713	0.65	4.8	5.5	1.0	10	11	13.2	23.8	37.0
REPEATS															
CS 1-1 0-10cm	< 0.004	0.04	0.04	48	7378	7425	0.09	0.6	0.7	2.8	11	14	106.8	188.1	294.9
CS 1-1 0-10cm REP	< 0.004	0.05	0.05	45	7288	7333	0.10	1.0	1.1	2.7	10	13	106.5	193.3	299.8
CS 17-1B 70-75 cm	< 0.004	0.10	0.10	118	9797	9915	< 0.08	1.4	1.5	< 0.4	4	4	40.0	79.6	119.6
CS 17-1B 70-75 cm	< 0.004	0.09	0.09	112	9776	9888	< 0.08	1.1	1.1	< 0.4	4	5	41.0	78.8	119.8
CS 25-1 23-28cm	< 0.004	0.03	0.03	< 8	774	773	0.34	1.8	2.1	1.1	9	10	23.9	44.1	68.0
CS 25-1 23-28cm REP	< 0.004	0.03	0.03	< 8	774	780	0.40	1.8	2.2	1.0	8	9	24.4	44.3	68.7
CS 38-1 38-43cm	< 0.004	0.09	0.09	70	11718	11788	0.27	1.7	2.0	0.9	8	9	35.7	66.6	102.3
CS 38-1 38-43cm REP	< 0.004	0.08	0.08	75	11721	11797	0.28	1.8	2.1	0.9	7	8	35.7	66.4	102.1
CS 52-1 49-54cm	< 0.004	0.03	0.03	< 8	647	654	0.25	1.4	1.6	< 0.4	4	4	19.7	27.8	47.6
CS 52-1 49-54cm REP	< 0.004	0.03	0.03	< 8	619	626	0.24	1.3	1.5	< 0.4	4	4	19.2	27.0	46.2
CONTROLS															
BLANK	< 0.004	< 0.01	< 0.01	< 8	< 20	< 28	< 0.08	0.3	0.3	< 0.4	< 1	< 1	< 0.2	< 0.4	< 0.6
BLANK	< 0.004	< 0.01	< 0.01	< 8	< 20	< 28	< 0.08	< 0.2	< 0.3	< 0.4	< 1	< 1	< 0.2	< 0.4	< 0.6
BLANK	< 0.004	< 0.01	< 0.01	< 8	< 20	< 28	< 0.08	< 0.2	< 0.3	< 0.4	< 1	< 1	< 0.2	< 0.4	< 0.6
LKSD-4	< 0.004	0.22	0.22	622	11584	12206	1.12	12.5	13.6	2.4	7	9	25.3	109.2	134.6
LKSD-4	< 0.004	0.24	0.24	612	11775	12386	1.21	12.2	13.4	2.4	7	9	25.6	107.5	133.1
LKSD-4	< 0.004	0.22	0.22	594	11559	12153	1.17	12.3	13.5	2.3	7	9	25.7	110.7	136.4
Provisional Values			0.2 ± 0.1			1.44 ± 0.19 %			13 ± 3						135 ± 4

	Be	Be	Be	Bi	Bi	Bi	Br	Br	Br	Ca	Ca	Ca	Cd	Cd	Cd
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS
	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum	1M NH4OAc 2 hr pH 5.0	Aqua Regia	SUM	1M NH4OAc 2 hr pH 5.0	Aqua Regia	SUM	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.004	0.01	0.01	0.02	0.04	0.06	20	50	70	8	20	28	0.02	0.04	0.06
CS 1-1 0-10cm	0.014	0.23	0.24	< 0.02	0.05	< 0.06	< 20	< 50	< 70	29256	19691	48947	0.05	0.11	0.16
CS 5-1 0-10cm	< 0.004	0.04	0.04	< 0.02	0.19	0.17	< 20	< 50	< 70	11418	6228	17646	0.19	0.45	0.65
CS 9-1 0-10cm	< 0.004	0.03	0.03	< 0.02	0.11	0.09	< 20	< 50	< 70	14816	8836	23653	0.24	0.35	0.59
CS 9-1 55-61cm	0.022	0.21	0.23	< 0.02	0.06	< 0.06	< 20	< 50	< 70	21518	14928	36446	0.06	0.07	0.13
CS 11-1 0-10cm	< 0.004	0.04	0.05	< 0.02	0.12	0.09	< 20	53	< 70	18433	14296	32729	0.33	0.37	0.70
CS 11-1 44-47cm	0.048	0.56	0.61	< 0.02	0.12	0.09	< 20	< 50	< 70	16518	9358	25876	0.07	0.07	0.14
CS 13-1 0-5cm	0.004	0.03	0.03	< 0.02	0.10	0.07	< 20	< 50	< 70	10979	4623	15602	0.14	0.78	0.92
CS 13-1 45-49cm	0.013	0.20	0.21	< 0.02	0.06	< 0.06	< 20	< 50	< 70	20374	14262	34636	0.11	0.16	0.27
CS 17-1 0-5cm	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	17550	12636	30186	0.04	0.08	0.12
CS 17-1B 70-75 cm	0.039	0.37	0.41	< 0.02	0.08	< 0.06	< 20	< 50	< 70	17102	9699	26801	0.13	0.20	0.33
CS 19-1 0-10cm	< 0.004	0.04	0.04	< 0.02	0.15	0.13	< 20	< 50	< 70	20962	14527	35489	0.06	0.47	0.53
CS 19-1 59-64cm	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	16158	11776	27933	0.05	0.09	0.14
CS 21-1 0-10cm	< 0.004	0.06	0.06	< 0.02	0.13	0.12	< 20	< 50	< 70	25856	19510	45366	0.08	0.96	1.04
CS 21-1 59-62cm	0.009	0.11	0.12	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	13530	7049	20579	0.08	0.13	0.21
CS 21-1 89-94cm	0.018	0.22	0.24	< 0.02	0.04	< 0.06	< 20	< 50	< 70	21365	14358	35723	0.18	0.28	0.47
CS 23-1 0-10cm	< 0.004	0.04	0.04	< 0.02	0.22	0.20	< 20	< 50	< 70	18970	10624	29593	0.12	2.43	2.55
CS 25-1A 0-10cm	< 0.004	0.03	0.03	< 0.02	0.13	0.10	< 20	< 50	< 70	19618	12010	31627	0.41	0.46	0.88
CS 25-1 23-28cm	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	22550	16839	39389	0.04	0.21	0.26
CS 25-1 58-63cm	0.006	0.05	0.05	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	21420	13881	35302	< 0.02	< 0.04	< 0.06
CS 27-1 0-5cm	< 0.004	0.03	0.03	< 0.02	0.10	0.08	< 20	< 50	< 70	27040	18738	45778	0.10	0.53	0.64
CS 27-1 56-66cm	< 0.004	0.07	0.07	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	26258	17066	43324	0.08	0.15	0.23
CS 38-1 28-33cm	0.012	0.13	0.14	< 0.02	0.05	< 0.06	< 20	< 50	< 70	17079	11441	28520	0.09	0.14	0.22
CS 38-1 38-43cm	0.039	0.31	0.35	< 0.02	0.07	< 0.06	< 20	< 50	< 70	15628	8570	24198	0.05	0.13	0.18
CS 42-1 0-8cm	< 0.004	0.03	0.03	< 0.02	0.11	0.08	< 20	< 50	< 70	16342	10713	27055	0.19	0.58	0.77
CS 42-1 48-53cm	0.010	0.10	0.11	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	19201	12362	31563	0.03	< 0.04	0.07
CS 42-1 85-95cm	0.033	0.30	0.33	< 0.02	0.08	< 0.06	< 20	< 50	< 70	10802	5067	15869	0.06	0.07	0.13
CS 46-1 10-20cm	< 0.004	0.03	0.03	< 0.02	0.16	0.14	< 20	67	< 70	19185	12397	31582	0.18	0.74	0.92
CS 46-1 50-60cm	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	17171	11299	28469	0.04	0.07	0.12
CS 46-1 97-107cm	0.013	0.09	0.11	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	16746	10390	27136	0.04	0.05	0.09
CS 48-1 12-18cm	< 0.004	0.04	0.04	< 0.02	0.13	0.11	< 20	< 50	< 70	17088	10131	27219	0.28	0.58	0.87
CS 48-1 100-105cm	0.005	0.08	0.08	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	18792	12405	31196	0.03	0.06	0.09
CS 50-1 15-23cm	< 0.004	0.05	0.05	< 0.02	0.21	0.19	< 20	< 50	< 70	20300	12645	32945	0.25	0.89	1.14
CS 50-1 64-74cm	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	16759	11115	27873	0.03	0.05	0.07
CS 50-1 104-114cm	0.010	0.06	0.07	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	16338	9942	26280	0.02	< 0.04	< 0.06
CS 52-1 6-13cm	< 0.004	0.04	0.04	< 0.02	0.18	0.15	< 20	< 50	< 70	18520	11741	30261	0.19	0.98	1.16
CS 52-1 49-54cm	< 0.004	0.02	0.03	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	18623	12075	30698	0.04	0.08	0.12
CS 52-1 94-98cm	0.008	0.05	0.06	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	14813	9073	23885	0.05	0.09	0.14
CS 54-1 10-23cm	< 0.004	0.03	0.03	< 0.02	0.04	< 0.06	< 20	< 50	< 70	18381	12304	30685	0.04	0.14	0.17
CS 56-1 13-18cm	0.005	0.04	0.04	< 0.02	0.15	0.13	< 20	< 50	< 70	15882	9225	25107	0.15	1.45	1.59
CS 56-1 48-53cm	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	18078	12715	30793	0.02	< 0.04	< 0.06
CS 58-1 10-22cm	< 0.004	0.02	0.03	< 0.02	0.12	0.09	< 20	< 50	< 70	13169	8233	21402	0.26	0.85	1.11
REPEATS															
CS 1-1 0-10cm	0.014	0.23	0.24	< 0.02	0.05	< 0.06	< 20	< 50	< 70	29256	19691	48947	0.05	0.11	0.16
CS 1-1 0-10cm REP	0.013	0.23	0.25	< 0.02	0.05	< 0.06	< 20	< 50	< 70	30979	20033	51012	0.05	0.12	0.17
CS 17-1B 70-75 cm	0.039	0.37	0.41	< 0.02	0.08	< 0.06	< 20	< 50	< 70	17102	9699	26801	0.13	0.20	0.33
CS 17-1B 70-75 cm	0.038	0.34	0.38	< 0.02	0.08	< 0.06	< 20	< 50	< 70	17961	9872	27833	0.13	0.22	0.35
CS 25-1 23-28cm	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	22550	16839	39389	0.04	0.21	0.26
CS 25-1 23-28cm REP	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	23262	16734	39996	0.04	0.21	0.25
CS 38-1 38-43cm	0.039	0.31	0.35	< 0.02	0.07	< 0.06	< 20	< 50	< 70	15628	8570	24198	0.05	0.13	0.18
CS 38-1 38-43cm REP	0.033	0.32	0.35	< 0.02	0.07	< 0.06	< 20	< 50	< 70	16158	8602	24759	0.05	0.12	0.17
CS 52-1 49-54cm	< 0.004	0.02	0.03	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	18623	12075	30698	0.04	0.08	0.12
CS 52-1 49-54cm REP	< 0.004	0.04	0.04	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	18026	11820	29845	0.03	0.07	0.11
CONTROLS															
BLANK	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	< 8	< 20	< 28	< 0.02	< 0.04	< 0.06
BLANK	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	< 8	< 20	< 28	< 0.02	< 0.04	< 0.06
BLANK	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 20	< 50	< 70	< 8	< 20	< 28	< 0.02	< 0.04	< 0.06
LKSD-4	0.084	0.33	0.41	0.06	0.39	0.46	< 20	< 50	< 70	6321	2396	8717	0.73	1.30	2.03
LKSD-4	0.099	0.34	0.44	0.07	0.40	0.47	< 20	< 50	< 70	6457	2432	8889	0.77	1.27	2.04
LKSD-4	0.097	0.36	0.46	0.06	0.41	0.47	< 20	< 50	< 70	6294	2395	8689	0.75	1.23	1.98
Provisional Values												0.89 ± 0.05%			1.9 ± 0.2

	Ce ICP-MS 1M NH4OAc 2 hr pH 5.0	Ce ICP-MS Aqua Regia	Ce ICP-MS Sum	Cl ICP-ES 1M NH4OAc 2 hr pH 5.0	Cl ICP-ES Aqua Regia	Cl ICP-ES SUM	Co ICP-MS 1M NH4OAc 2 hr pH 5.0	Co ICP-MS Aqua Regia	Co ICP-MS Sum	Cr ICP-ES 1M NH4OAc 2 hr pH 5.0	Cr ICP-ES Aqua Regia	Cr ICP-ES SUM	Cs ICP-MS 1M NH4OAc 2 hr pH 5.0	Cs ICP-MS Aqua Regia	Cs ICP-MS Sum
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.008	0.02	0.03	40	NA	NA	0.04	0.1	0.1	0.4	1	1	0.008	0.02	0.03
CS 1-1 0-10cm	0.139	13.51	13.65	< 40	NA	NA	1.19	7.6	8.8	< 0.4	28	28	< 0.008	0.38	0.38
CS 5-1 0-10cm	0.050	2.36	2.41	< 40	NA	NA	0.35	1.4	1.8	< 0.4	2	2	< 0.008	0.25	0.26
CS 9-1 0-10cm	0.028	1.03	1.06	88	NA	NA	1.16	4.9	6.1	< 0.4	< 1	< 1	0.009	0.08	0.09
CS 9-1 55-61cm	0.380	21.19	21.57	< 40	NA	NA	0.52	4.0	4.5	< 0.4	8	8	0.010	0.26	0.27
CS 11-1 0-10cm	0.020	1.38	1.40	< 40	NA	NA	0.52	3.1	3.7	< 0.4	2	1	< 0.008	0.13	0.13
CS 11-1 44-47cm	0.896	54.44	55.33	< 40	NA	NA	0.25	7.0	7.2	< 0.4	51	51	0.095	1.30	1.39
CS 13-1 0-5cm	0.051	1.34	1.40	46	NA	NA	2.02	3.4	5.4	< 0.4	1	1	< 0.008	0.11	0.11
CS 13-1 45-49cm	0.195	16.34	16.54	< 40	NA	NA	0.61	5.2	5.8	< 0.4	10	9	0.012	0.34	0.35
CS 17-1 0-5cm	0.011	1.07	1.08	40	NA	NA	0.19	1.4	1.6	< 0.4	< 1	< 1	< 0.008	0.03	0.03
CS 17-1B 70-75 cm	0.480	29.41	29.89	< 40	NA	NA	1.36	6.9	8.2	< 0.4	45	45	0.025	0.74	0.77
CS 19-1 0-10cm	0.016	1.62	1.63	99	NA	NA	0.62	3.3	3.9	< 0.4	< 1	< 1	0.028	0.42	0.45
CS 19-1 59-64cm	0.011	1.08	1.09	< 40	NA	NA	0.19	1.7	1.9	< 0.4	2	1	< 0.008	0.02	< 0.03
CS 21-1 0-10cm	0.018	2.13	2.15	< 40	NA	NA	0.20	1.7	1.9	< 0.4	2	2	0.015	0.27	0.29
CS 21-1 59-62cm	0.084	12.61	12.69	< 40	NA	NA	0.06	0.9	1.0	< 0.4	9	9	< 0.008	0.17	0.17
CS 21-1 89-94cm	0.105	7.36	7.46	< 40	NA	NA	0.14	1.3	1.4	< 0.4	12	12	< 0.008	0.13	0.13
CS 23-1 0-10cm	0.056	1.99	2.05	164	NA	NA	1.53	5.2	6.8	< 0.4	< 1	< 1	0.025	0.13	0.16
CS 25-1A 0-10cm	0.026	1.36	1.39	56	NA	NA	0.43	2.5	3.0	< 0.4	< 1	< 1	< 0.008	0.11	0.11
CS 25-1 23-28cm	0.014	1.26	1.27	< 40	NA	NA	0.27	1.5	1.8	< 0.4	2	2	< 0.008	0.04	0.04
CS 25-1 58-63cm	0.036	2.22	2.26	< 40	NA	NA	0.41	1.7	2.1	< 0.4	4	4	< 0.008	0.04	0.04
CS 27-1 0-5cm	0.017	1.58	1.60	76	NA	NA	0.06	0.7	0.8	< 0.4	< 1	< 1	< 0.008	0.14	0.14
CS 27-1 56-66cm	0.037	2.83	2.86	< 40	NA	NA	0.12	1.0	1.1	< 0.4	4	4	< 0.008	0.09	0.09
CS 38-1 28-33cm	0.151	9.30	9.45	< 40	NA	NA	0.28	1.5	1.7	< 0.4	6	6	< 0.008	0.17	0.17
CS 38-1 38-43cm	0.435	25.36	25.79	< 40	NA	NA	0.69	2.9	3.6	< 0.4	29	29	0.019	0.68	0.70
CS 42-1 0-8cm	0.027	1.30	1.32	65	NA	NA	0.37	1.6	2.0	< 0.4	3	3	< 0.008	0.09	0.10
CS 42-1 48-53cm	0.134	5.98	6.11	< 40	NA	NA	0.63	2.4	3.0	< 0.4	5	5	< 0.008	0.06	0.06
CS 42-1 85-95cm	0.500	28.16	28.66	< 40	NA	NA	0.38	8.9	9.3	< 0.4	56	56	0.044	0.79	0.83
CS 46-1 10-20cm	0.023	2.07	2.09	177	NA	NA	0.24	1.6	1.8	< 0.4	2	2	< 0.008	0.29	0.29
CS 46-1 50-60cm	0.014	1.04	1.06	< 40	NA	NA	0.20	1.2	1.4	< 0.4	1	1	< 0.008	0.04	0.04
CS 46-1 97-107cm	0.113	4.74	4.86	< 40	NA	NA	0.31	2.1	2.4	< 0.4	4	4	< 0.008	0.05	0.05
CS 48-1 12-18cm	0.017	1.14	1.16	196	NA	NA	0.10	0.8	0.9	< 0.4	< 1	< 1	0.009	0.15	0.16
CS 48-1 100-105cm	0.075	4.03	4.11	< 40	NA	NA	0.32	1.5	1.8	< 0.4	4	4	< 0.008	0.03	0.03
CS 50-1 15-23cm	0.025	2.28	2.31	58	NA	NA	0.15	1.1	1.3	< 0.4	2	2	< 0.008	0.23	0.23
CS 50-1 64-74cm	0.016	0.90	0.91	< 40	NA	NA	0.14	0.9	1.0	< 0.4	2	2	< 0.008	0.03	0.03
CS 50-1 104-114cm	0.082	2.87	2.95	< 40	NA	NA	0.52	2.0	2.5	< 0.4	2	2	< 0.008	0.02	< 0.03
CS 52-1 6-13cm	0.020	1.79	1.81	42	NA	NA	0.12	0.7	0.9	< 0.4	2	2	0.009	0.17	0.18
CS 52-1 49-54cm	0.013	0.95	0.97	< 40	NA	NA	0.28	1.5	1.8	< 0.4	2	1	< 0.008	0.03	0.03
CS 52-1 94-98cm	0.046	2.36	2.41	< 40	NA	NA	0.86	3.1	4.0	< 0.4	6	6	< 0.008	0.08	0.09
CS 54-1 10-23cm	< 0.008	0.91	0.92	60	NA	NA	0.07	0.6	0.7	< 0.4	2	1	< 0.008	0.07	0.07
CS 56-1 13-18cm	0.029	1.84	1.87	98	NA	NA	0.12	0.7	0.8	< 0.4	3	3	< 0.008	0.16	0.16
CS 56-1 48-53cm	0.015	1.05	1.07	< 40	NA	NA	0.11	0.7	0.8	< 0.4	5	5	< 0.008	0.04	0.04
CS 58-1 10-22cm	0.023	1.09	1.11	251	NA	NA	0.18	0.8	1.0	< 0.4	1	1	< 0.008	0.13	0.14
REPEATS															
CS 1-1 0-10cm	0.139	13.51	13.65	< 40	NA	NA	1.19	7.6	8.8	< 0.4	28	28	< 0.008	0.38	0.38
CS 1-1 0-10cm REP	0.134	14.99	15.12	< 40	NA	NA	1.15	8.2	9.3	< 0.4	28	27	< 0.008	0.40	0.41
CS 17-1B 70-75 cm	0.480	29.41	29.89	< 40	NA	NA	1.36	6.9	8.2	< 0.4	45	45	0.025	0.74	0.77
CS 17-1B 70-75 cm	0.498	28.30	28.80	< 40	NA	NA	1.36	7.1	8.5	< 0.4	41	41	0.024	0.75	0.77
CS 25-1 23-28cm	0.014	1.26	1.27	< 40	NA	NA	0.27	1.5	1.8	< 0.4	2	2	< 0.008	0.04	0.04
CS 25-1 23-28cm REP	0.015	1.23	1.24	< 40	NA	NA	0.30	1.5	1.7	< 0.4	4	4	< 0.008	0.04	0.04
CS 38-1 38-43cm	0.435	25.36	25.79	< 40	NA	NA	0.69	2.9	3.6	< 0.4	29	29	0.019	0.68	0.70
CS 38-1 38-43cm REP	0.445	25.36	25.80	< 40	NA	NA	0.68	2.8	3.5	< 0.4	29	29	0.019	0.68	0.70
CS 52-1 49-54cm	0.013	0.95	0.97	< 40	NA	NA	0.28	1.5	1.8	< 0.4	2	1	< 0.008	0.03	0.03
CS 52-1 49-54cm REP	0.013	0.91	0.92	< 40	NA	NA	0.27	1.5	1.7	< 0.4	3	3	< 0.008	0.03	0.03
CONTROLS															
BLANK	< 0.008	< 0.02	< 0.03	< 40	NA	NA	< 0.04	< 0.1	< 0.1	< 0.4	< 1	< 1	< 0.008	< 0.02	< 0.03
BLANK	< 0.008	< 0.02	< 0.03	< 40	NA	NA	< 0.04	< 0.1	< 0.1	< 0.4	< 1	< 1	< 0.008	< 0.02	< 0.03
BLANK	< 0.008	< 0.02	< 0.03	< 40	NA	NA	< 0.04	< 0.1	< 0.1	< 0.4	< 1	< 1	< 0.008	< 0.02	< 0.03
LKSD-4	3.750	35.41	39.16	< 40	NA	NA	1.73	7.4	9.1	< 0.4	19	19	0.090	0.98	1.07
LKSD-4	4.024	34.95	38.98	48	NA	NA	1.87	7.2	9.1	< 0.4	19	20	0.089	0.96	1.05
LKSD-4	3.956	35.32	39.27	40	NA	NA	1.79	7.0	8.8	0.7	20	20	0.089	0.97	1.06
Provisional Values									10 ± 1			21 ± 2			

	Cu ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Cu ICP-MS Aqua Regia ppm	Cu ICP-MS Sum ppm	Dy ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Dy ICP-MS Aqua Regia ppm	Dy ICP-MS Sum ppm	Er ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Er ICP-MS Aqua Regia ppm	Er ICP-MS Sum ppm	Eu ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Eu ICP-MS Aqua Regia ppm	Eu ICP-MS Sum ppm	Fe ICP-ES 1M NH4OAc 2 hr pH 5.0 ppm	Fe ICP-ES Aqua Regia ppm	Fe ICP-ES SUM ppm
D.L.	0.08	0.2	0.3	0.004	0.01	0.01	0.004	0.01	0.01	0.004	0.01	0.01	2	5	7
CS 1-1 0-10cm	0.26	21.8	22.0	0.012	0.65	0.66	0.006	0.32	0.33	0.008	0.23	0.24	13	7515	7528
CS 5-1 0-10cm	< 0.08	9.3	9.4	< 0.004	0.13	0.13	< 0.004	0.07	0.07	< 0.004	0.04	0.04	3	1628	1630
CS 9-1 0-10cm	0.12	8.5	8.6	< 0.004	0.06	0.06	< 0.004	0.03	0.03	< 0.004	0.02	0.02	3	2271	2274
CS 9-1 55-61cm	0.15	18.5	18.6	0.025	0.94	0.97	0.011	0.44	0.45	0.011	0.31	0.32	32	7353	7385
CS 11-1 0-10cm	0.09	8.6	8.6	< 0.004	0.11	0.11	< 0.004	0.06	0.06	< 0.004	0.03	0.03	4	2914	2919
CS 11-1 44-47cm	0.38	40.9	41.3	0.043	1.82	1.86	0.019	0.89	0.91	0.018	0.65	0.67	12	14828	14840
CS 13-1 0-5cm	0.13	7.6	7.7	0.005	0.07	0.08	< 0.004	0.04	0.04	< 0.004	0.02	0.02	19	3883	3902
CS 13-1 45-49cm	0.13	19.5	19.6	0.012	0.65	0.66	0.005	0.32	0.33	0.004	0.22	0.23	15	6280	6295
CS 17-1 0-5cm	< 0.08	6.0	6.0	< 0.004	0.07	0.07	< 0.004	0.04	0.04	< 0.004	0.02	0.02	2	1817	1819
CS 17-1B 70-75 cm	0.14	19.8	19.9	0.029	1.03	1.05	0.013	0.50	0.51	0.010	0.33	0.34	45	9868	9913
CS 19-1 0-10cm	< 0.08	8.3	8.3	< 0.004	0.12	0.12	< 0.004	0.06	0.06	< 0.004	0.04	0.04	9	5856	5865
CS 19-1 59-64cm	< 0.08	5.3	5.3	< 0.004	0.07	0.07	< 0.004	0.03	0.03	< 0.004	0.02	0.02	3	2104	2107
CS 21-1 0-10cm	< 0.08	7.7	7.8	< 0.004	0.17	0.17	< 0.004	0.08	0.08	< 0.004	0.05	0.05	6	3906	3912
CS 21-1 59-62cm	< 0.08	5.7	5.7	< 0.004	0.45	0.45	< 0.004	0.18	0.18	< 0.004	0.12	0.12	< 2	1740	1741
CS 21-1 89-94cm	< 0.08	15.6	15.6	0.007	0.36	0.37	< 0.004	0.18	0.19	< 0.004	0.12	0.12	4	2030	2033
CS 23-1 0-10cm	0.08	10.7	10.8	< 0.004	0.09	0.09	< 0.004	0.04	0.04	< 0.004	0.02	0.03	14	6398	6412
CS 25-1A 0-10cm	0.16	8.9	9.0	< 0.004	0.09	0.09	< 0.004	0.04	0.05	< 0.004	0.02	0.02	4	2143	2147
CS 25-1 23-28cm	< 0.08	6.7	6.7	< 0.004	0.11	0.11	< 0.004	0.06	0.06	< 0.004	0.03	0.03	14	6357	6371
CS 25-1 58-63cm	< 0.08	12.1	12.1	< 0.004	0.16	0.16	< 0.004	0.08	0.08	< 0.004	0.04	0.04	43	8733	8776
CS 27-1 0-5cm	< 0.08	8.7	8.8	< 0.004	0.12	0.12	< 0.004	0.06	0.06	< 0.004	0.03	0.03	< 2	926	927
CS 27-1 56-66cm	< 0.08	7.1	7.2	< 0.004	0.19	0.19	< 0.004	0.09	0.10	< 0.004	0.05	0.05	< 2	1436	1437
CS 38-1 28-33cm	0.24	18.2	18.4	0.009	0.45	0.46	0.005	0.23	0.23	0.004	0.15	0.15	17	3713	3730
CS 38-1 38-43cm	0.27	27.7	28.0	0.028	0.99	1.02	0.011	0.47	0.48	0.011	0.36	0.37	37	7712	7749
CS 42-1 0-8cm	< 0.08	8.9	9.0	< 0.004	0.08	0.08	< 0.004	0.04	0.04	< 0.004	0.02	0.03	4	1953	1957
CS 42-1 48-53cm	0.17	22.6	22.8	0.012	0.37	0.38	0.005	0.19	0.20	0.005	0.12	0.12	22	4791	4814
CS 42-1 85-95cm	0.44	37.0	37.4	0.031	0.99	1.02	0.015	0.38	0.40	0.014	0.37	0.38	31	19793	19824
CS 46-1 10-20cm	0.09	8.4	8.5	< 0.004	0.12	0.13	< 0.004	0.06	0.06	< 0.004	0.04	0.04	5	3952	3957
CS 46-1 50-60cm	< 0.08	6.4	6.5	< 0.004	0.07	0.07	< 0.004	0.03	0.04	< 0.004	0.02	0.02	7	3680	3687
CS 46-1 97-107cm	< 0.08	17.2	17.2	0.009	0.26	0.27	< 0.004	0.14	0.14	< 0.004	0.08	0.08	13	4965	4978
CS 48-1 12-18cm	< 0.08	8.9	8.9	< 0.004	0.09	0.10	< 0.004	0.05	0.05	< 0.004	0.03	0.03	3	1890	1893
CS 48-1 100-105cm	< 0.08	12.0	12.1	0.006	0.23	0.24	< 0.004	0.13	0.13	< 0.004	0.08	0.08	28	8686	8713
CS 50-1 15-23cm	0.08	9.6	9.7	< 0.004	0.14	0.14	< 0.004	0.07	0.07	< 0.004	0.04	0.04	3	2393	2396
CS 50-1 64-74cm	< 0.08	4.9	4.9	< 0.004	0.06	0.06	< 0.004	0.03	0.03	< 0.004	0.02	0.02	6	3230	3236
CS 50-1 104-114cm	< 0.08	15.3	15.3	0.007	0.16	0.17	< 0.004	0.09	0.09	< 0.004	0.05	0.05	35	7531	7566
CS 52-1 6-13cm	< 0.08	11.5	11.5	< 0.004	0.14	0.14	< 0.004	0.07	0.07	< 0.004	0.04	0.04	3	1861	1863
CS 52-1 49-54cm	< 0.08	6.2	6.2	< 0.004	0.07	0.07	< 0.004	0.04	0.04	< 0.004	0.02	0.02	11	3509	3520
CS 52-1 94-98cm	< 0.08	10.0	10.0	0.005	0.13	0.13	< 0.004	0.07	0.07	< 0.004	0.04	0.04	40	8168	8208
CS 54-1 10-23cm	< 0.08	3.3	3.3	< 0.004	0.07	0.07	< 0.004	0.04	0.04	< 0.004	0.02	0.02	< 2	1092	1093
CS 56-1 13-18cm	0.08	11.9	12.0	< 0.004	0.13	0.13	< 0.004	0.07	0.07	< 0.004	0.04	0.04	3	1392	1394
CS 56-1 48-53cm	< 0.08	5.4	5.4	< 0.004	0.08	0.08	< 0.004	0.05	0.05	< 0.004	0.02	0.02	4	1826	1830
CS 58-1 10-22cm	0.09	9.7	9.8	< 0.004	0.08	0.09	< 0.004	0.04	0.05	< 0.004	0.02	0.03	2	1461	1463
REPEATS															
CS 1-1 0-10cm	0.26	21.8	22.0	0.012	0.65	0.66	0.006	0.32	0.33	0.008	0.23	0.24	13	7515	7528
CS 1-1 0-10cm REP	0.23	22.5	22.7	0.012	0.71	0.72	0.006	0.30	0.31	0.008	0.24	0.25	13	7448	7461
CS 17-1B 70-75 cm	0.14	19.8	19.9	0.029	1.03	1.05	0.013	0.50	0.51	0.010	0.33	0.34	45	9868	9913
CS 17-1B 70-75 cm	0.14	19.7	19.8	0.028	1.02	1.04	0.013	0.48	0.49	0.011	0.32	0.33	44	9856	9901
CS 25-1 23-28cm	< 0.08	6.7	6.7	< 0.004	0.11	0.11	< 0.004	0.06	0.06	< 0.004	0.03	0.03	14	6357	6371
CS 25-1 23-28cm REP	< 0.08	6.5	6.5	< 0.004	0.11	0.11	< 0.004	0.06	0.06	< 0.004	0.03	0.03	14	6248	6261
CS 38-1 38-43cm	0.27	27.7	28.0	0.028	0.99	1.02	0.011	0.47	0.48	0.011	0.36	0.37	37	7712	7749
CS 38-1 38-43cm REP	0.27	27.6	27.8	0.028	0.98	1.01	0.012	0.47	0.49	0.012	0.37	0.38	37	7858	7895
CS 52-1 49-54cm	< 0.08	6.2	6.2	< 0.004	0.07	0.07	< 0.004	0.04	0.04	< 0.004	0.02	0.02	11	3509	3520
CS 52-1 49-54cm REP	< 0.08	6.0	6.0	< 0.004	0.07	0.07	< 0.004	0.03	0.03	< 0.004	0.02	0.02	13	3448	3461
CONTROLS															
BLANK	< 0.08	< 0.2	< 0.3	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 2	< 5	< 7
BLANK	< 0.08	< 0.2	< 0.3	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 2	< 5	< 7
BLANK	< 0.08	< 0.2	< 0.3	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 2	< 5	< 7
LKSD-4	0.95	28.1	29.1	0.392	2.52	2.91	0.198	1.37	1.57	0.129	0.71	0.84	420	22989	23409
LKSD-4	0.96	28.9	29.9	0.417	2.48	2.89	0.194	1.36	1.56	0.131	0.71	0.84	415	23007	23423
LKSD-4	1.00	28.1	29.1	0.377	2.44	2.82	0.197	1.43	1.63	0.133	0.73	0.86	408	22907	23315
Provisional Values			29 ± 3												2.7 ± 0.3 %

	Ga ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Ga ICP-MS Aqua Regia ppm	Ga ICP-MS Sum ppm	Gd ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Gd ICP-MS Aqua Regia ppm	Gd ICP-MS Sum ppm	Ge ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Ge ICP-MS Aqua Regia ppm	Ge ICP-MS Sum ppm	Hf ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Hf ICP-MS Aqua Regia ppm	Hf ICP-MS Sum ppm	Ho ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Ho ICP-MS Aqua Regia ppm	Ho ICP-MS Sum ppm
D.L.	0.008	0.02	0.03	0.004	0.01	0.01	0.02	0.04	0.06	0.008	0.02	0.03	0.004	0.01	0.01
CS 1-1 0-10cm	< 0.008	1.87	1.87	0.018	0.97	0.99	< 0.02	< 0.04	< 0.06	< 0.008	0.06	0.06	< 0.004	0.12	0.12
CS 5-1 0-10cm	< 0.008	0.36	0.37	0.006	0.17	0.17	< 0.02	< 0.04	< 0.06	0.011	0.26	0.27	< 0.004	0.03	0.03
CS 9-1 0-10cm	0.019	0.14	0.16	< 0.004	0.08	0.08	< 0.02	< 0.04	< 0.06	0.015	0.07	0.09	< 0.004	0.01	< 0.01
CS 9-1 55-61cm	< 0.008	0.99	1.00	0.039	1.31	1.34	< 0.02	< 0.04	< 0.06	< 0.008	0.10	0.11	0.005	0.18	0.18
CS 11-1 0-10cm	< 0.008	0.27	0.27	< 0.004	0.14	0.15	< 0.02	< 0.04	< 0.06	< 0.008	0.05	0.05	< 0.004	0.02	0.02
CS 11-1 44-47cm	< 0.008	5.72	5.72	0.075	2.74	2.81	< 0.02	0.04	< 0.06	< 0.008	0.15	0.15	0.008	0.34	0.35
CS 13-1 0-5cm	0.016	0.18	0.20	0.006	0.09	0.10	< 0.02	< 0.04	< 0.06	< 0.008	0.03	0.04	< 0.004	0.01	0.01
CS 13-1 45-49cm	< 0.008	1.38	1.38	0.017	0.97	0.99	< 0.02	0.04	< 0.06	< 0.008	0.08	0.08	< 0.004	0.12	0.12
CS 17-1 0-5cm	< 0.008	0.14	0.14	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	< 0.008	0.03	< 0.03	< 0.004	0.01	< 0.01
CS 17-1B 70-75 cm	< 0.008	3.17	3.18	0.041	1.48	1.52	< 0.02	< 0.04	< 0.06	< 0.008	0.10	0.11	0.005	0.19	0.19
CS 19-1 0-10cm	< 0.008	0.29	0.30	< 0.004	0.16	0.17	< 0.02	< 0.04	< 0.06	< 0.008	0.04	0.04	< 0.004	0.02	0.02
CS 19-1 59-64cm	< 0.008	0.15	0.15	< 0.004	0.08	0.09	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01
CS 21-1 0-10cm	0.009	0.28	0.29	< 0.004	0.22	0.22	< 0.02	< 0.04	< 0.06	< 0.008	0.05	0.06	< 0.004	0.03	0.03
CS 21-1 59-62cm	< 0.008	0.78	0.78	0.006	0.74	0.74	< 0.02	< 0.04	< 0.06	< 0.008	0.03	< 0.03	< 0.004	0.08	0.08
CS 21-1 89-94cm	< 0.008	0.88	0.88	0.009	0.45	0.46	< 0.02	0.06	0.06	< 0.008	0.05	0.05	< 0.004	0.07	0.07
CS 23-1 0-10cm	0.038	0.21	0.24	0.005	0.11	0.11	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02
CS 25-1A 0-10cm	0.017	0.19	0.20	< 0.004	0.12	0.12	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02
CS 25-1 23-28cm	< 0.008	0.16	0.16	< 0.004	0.14	0.14	< 0.02	< 0.04	< 0.06	< 0.008	0.03	< 0.03	< 0.004	0.02	0.02
CS 25-1 58-63cm	< 0.008	0.24	0.24	0.006	0.19	0.20	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03
CS 27-1 0-5cm	< 0.008	0.22	0.22	< 0.004	0.15	0.16	< 0.02	< 0.04	< 0.06	0.016	0.26	0.28	< 0.004	0.02	0.02
CS 27-1 56-66cm	< 0.008	0.29	0.29	0.004	0.23	0.24	< 0.02	< 0.04	< 0.06	< 0.008	0.09	0.10	< 0.004	0.04	0.04
CS 38-1 28-33cm	< 0.008	0.73	0.73	0.016	0.63	0.65	< 0.02	0.06	0.06	< 0.008	0.09	0.10	< 0.004	0.09	0.09
CS 38-1 38-43cm	< 0.008	3.67	3.68	0.043	1.45	1.50	< 0.02	< 0.04	< 0.06	< 0.008	0.11	0.11	0.005	0.19	0.19
CS 42-1 0-8cm	0.016	0.19	0.20	< 0.004	0.10	0.10	< 0.02	< 0.04	< 0.06	< 0.008	0.03	0.04	< 0.004	0.02	0.02
CS 42-1 48-53cm	< 0.008	0.47	0.47	0.018	0.49	0.51	< 0.02	< 0.04	< 0.06	< 0.008	0.05	0.05	< 0.004	0.07	0.07
CS 42-1 85-95cm	< 0.008	5.72	5.72	0.051	1.77	1.82	< 0.02	0.06	0.06	< 0.008	0.08	0.08	0.006	0.16	0.16
CS 46-1 10-20cm	< 0.008	0.39	0.39	< 0.004	0.17	0.17	< 0.02	< 0.04	< 0.06	< 0.008	0.04	0.04	< 0.004	0.03	0.03
CS 46-1 50-60cm	< 0.008	0.17	0.17	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01
CS 46-1 97-107cm	< 0.008	0.46	0.46	0.013	0.33	0.34	< 0.02	< 0.04	< 0.06	< 0.008	0.03	0.03	< 0.004	0.05	0.05
CS 48-1 12-18cm	< 0.008	0.17	0.17	< 0.004	0.12	0.13	< 0.02	< 0.04	< 0.06	< 0.008	0.02	< 0.03	< 0.004	0.02	0.02
CS 48-1 100-105cm	< 0.008	0.33	0.33	0.009	0.31	0.32	< 0.02	< 0.04	< 0.06	< 0.008	0.04	0.04	< 0.004	0.05	0.05
CS 50-1 15-23cm	< 0.008	0.37	0.38	< 0.004	0.19	0.20	< 0.02	< 0.04	< 0.06	< 0.008	0.03	0.04	< 0.004	0.03	0.03
CS 50-1 64-74cm	< 0.008	0.13	0.13	< 0.004	0.07	0.08	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01
CS 50-1 104-114cm	< 0.008	0.19	0.19	0.011	0.21	0.22	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03
CS 52-1 6-13cm	< 0.008	0.33	0.33	< 0.004	0.17	0.17	< 0.02	< 0.04	< 0.06	< 0.008	0.02	< 0.03	< 0.004	0.03	0.03
CS 52-1 49-54cm	< 0.008	0.14	0.14	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01
CS 52-1 94-98cm	< 0.008	0.35	0.35	0.006	0.17	0.18	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03
CS 54-1 10-23cm	< 0.008	0.14	0.14	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	0.016	0.24	0.26	< 0.004	0.01	< 0.01
CS 56-1 13-18cm	< 0.008	0.33	0.33	0.004	0.17	0.17	< 0.02	< 0.04	< 0.06	0.015	0.09	0.10	< 0.004	0.02	0.03
CS 56-1 48-53cm	< 0.008	0.15	0.15	< 0.004	0.10	0.10	< 0.02	< 0.04	< 0.06	< 0.008	0.04	0.05	< 0.004	0.02	0.02
CS 58-1 10-22cm	< 0.008	0.19	0.20	< 0.004	0.11	0.11	< 0.02	< 0.04	< 0.06	< 0.008	0.04	0.04	< 0.004	0.02	0.02
REPEATS															
CS 1-1 0-10cm	< 0.008	1.87	1.87	0.018	0.97	0.99	< 0.02	< 0.04	< 0.06	< 0.008	0.06	0.06	< 0.004	0.12	0.12
CS 1-1 0-10cm REP	< 0.008	1.98	1.98	0.017	1.11	1.13	< 0.02	< 0.04	< 0.06	< 0.008	0.05	0.05	< 0.004	0.12	0.12
CS 17-1B 70-75 cm	< 0.008	3.17	3.18	0.041	1.48	1.52	< 0.02	< 0.04	< 0.06	< 0.008	0.10	0.11	0.005	0.19	0.19
CS 17-1B 70-75 cm	< 0.008	3.09	3.10	0.042	1.45	1.50	< 0.02	< 0.04	< 0.06	< 0.008	0.09	0.09	0.005	0.19	0.19
CS 25-1 23-28cm	< 0.008	0.16	0.16	< 0.004	0.14	0.14	< 0.02	< 0.04	< 0.06	< 0.008	0.03	< 0.03	< 0.004	0.02	0.02
CS 25-1 23-28cm REP	< 0.008	0.15	0.16	< 0.004	0.13	0.14	< 0.02	< 0.04	< 0.06	< 0.008	0.04	0.04	< 0.004	0.02	0.02
CS 38-1 38-43cm	< 0.008	3.67	3.68	0.043	1.45	1.50	< 0.02	< 0.04	< 0.06	< 0.008	0.11	0.11	0.005	0.19	0.19
CS 38-1 38-43cm REP	< 0.008	3.58	3.59	0.046	1.44	1.49	< 0.02	< 0.04	< 0.06	< 0.008	0.09	0.09	0.005	0.18	0.19
CS 52-1 49-54cm	< 0.008	0.14	0.14	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01
CS 52-1 49-54cm REP	< 0.008	0.13	0.13	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	< 0.008	0.03	< 0.03	< 0.004	0.01	< 0.01
CONTROLS															
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01
LKSD-4	0.037	3.63	3.67	0.527	3.05	3.57	< 0.02	0.04	< 0.06	0.012	< 0.02	< 0.03	0.078	0.49	0.57
LKSD-4	0.043	3.70	3.74	0.557	3.00	3.56	< 0.02	0.06	0.07	0.014	< 0.02	< 0.03	0.077	0.49	0.56
LKSD-4	0.042	3.46	3.51	0.559	3.01	3.57	< 0.02	0.04	< 0.06	0.022	< 0.02	0.04	0.075	0.50	0.58

Provisional Values

	In	In	In	K	K	K	La	La	La	Li	Li	Li	Lu	Lu	Lu
	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum	1M NH4OAc 2 hr pH 5.0	Aqua Regia	SUM	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum	1M NH4OAc 2 hr pH 5.0	Aqua Regia	Sum
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.008	0.02	0.03	20	50	70	0.008	0.02	0.03	0.02	0.04	0.06	0.004	0.01	0.01
CS 1-1 0-10cm	< 0.008	< 0.02	< 0.03	181	1127	1308	0.074	6.48	6.55	0.17	6.72	6.89	< 0.004	0.04	0.04
CS 5-1 0-10cm	< 0.008	< 0.02	< 0.03	372	205	576	0.032	1.26	1.29	0.04	0.29	0.33	< 0.004	< 0.01	< 0.01
CS 9-1 0-10cm	< 0.008	< 0.02	< 0.03	950	366	1316	0.018	0.56	0.57	0.02	0.14	0.16	< 0.004	< 0.01	< 0.01
CS 9-1 55-61cm	< 0.008	< 0.02	< 0.03	35	184	219	0.211	10.19	10.40	0.05	1.11	1.16	< 0.004	0.06	0.06
CS 11-1 0-10cm	< 0.008	< 0.02	< 0.03	290	166	455	0.015	0.85	0.86	0.03	0.22	0.24	< 0.004	< 0.01	< 0.01
CS 11-1 44-47cm	< 0.008	0.02	< 0.03	139	2657	2796	0.503	27.90	28.41	0.32	14.23	14.55	< 0.004	0.11	0.11
CS 13-1 0-5cm	< 0.008	< 0.02	< 0.03	663	238	901	0.034	0.76	0.80	0.02	0.35	0.37	< 0.004	< 0.01	< 0.01
CS 13-1 45-49cm	< 0.008	< 0.02	< 0.03	94	329	423	0.108	8.12	8.23	0.06	2.01	2.07	< 0.004	0.04	0.04
CS 17-1 0-5cm	< 0.008	< 0.02	< 0.03	176	84	260	0.008	0.59	0.60	< 0.02	0.11	0.12	< 0.004	< 0.01	< 0.01
CS 17-1B 70-75 cm	< 0.008	< 0.02	< 0.03	66	1037	1103	0.226	13.50	13.72	0.15	6.28	6.43	< 0.004	0.06	0.06
CS 19-1 0-10cm	< 0.008	< 0.02	< 0.03	869	319	1188	0.013	0.98	0.99	0.02	0.41	0.43	< 0.004	< 0.01	< 0.01
CS 19-1 59-64cm	< 0.008	< 0.02	< 0.03	83	< 50	124	< 0.008	0.58	0.58	< 0.02	0.07	0.08	< 0.004	< 0.01	< 0.01
CS 21-1 0-10cm	< 0.008	< 0.02	< 0.03	632	225	857	0.011	1.01	1.02	< 0.02	0.43	0.45	< 0.004	< 0.01	< 0.01
CS 21-1 59-62cm	< 0.008	< 0.02	< 0.03	< 20	153	170	0.034	5.27	5.30	0.04	2.10	2.14	< 0.004	0.02	0.02
CS 21-1 89-94cm	< 0.008	< 0.02	< 0.03	39	137	176	0.044	2.96	3.00	0.04	1.37	1.41	< 0.004	0.02	0.02
CS 23-1 0-10cm	< 0.008	< 0.02	< 0.03	1383	414	1797	0.023	0.76	0.79	0.05	0.21	0.26	< 0.004	< 0.01	< 0.01
CS 25-1A 0-10cm	< 0.008	< 0.02	< 0.03	642	261	903	0.015	0.69	0.71	< 0.02	0.29	0.31	< 0.004	< 0.01	< 0.01
CS 25-1 23-28cm	< 0.008	< 0.02	< 0.03	162	75	237	< 0.008	0.61	0.62	< 0.02	0.14	0.15	< 0.004	< 0.01	< 0.01
CS 25-1 58-63cm	< 0.008	< 0.02	< 0.03	28	< 50	< 70	0.021	1.13	1.15	< 0.02	0.27	0.28	< 0.004	0.01	< 0.01
CS 27-1 0-5cm	< 0.008	< 0.02	< 0.03	381	165	546	0.011	0.73	0.75	< 0.02	0.14	0.15	< 0.004	< 0.01	< 0.01
CS 27-1 56-66cm	< 0.008	< 0.02	< 0.03	35	52	87	0.021	1.35	1.38	0.02	0.29	0.31	< 0.004	0.01	< 0.01
CS 38-1 28-33cm	< 0.008	< 0.02	< 0.03	244	213	457	0.087	4.65	4.74	0.03	0.93	0.96	< 0.004	0.03	0.03
CS 38-1 38-43cm	< 0.008	< 0.02	< 0.03	261	927	1187	0.234	12.82	13.05	0.21	6.81	7.03	< 0.004	0.06	0.06
CS 42-1 0-8cm	< 0.008	< 0.02	< 0.03	462	226	688	0.015	0.61	0.63	0.03	0.18	0.20	< 0.004	< 0.01	< 0.01
CS 42-1 48-53cm	< 0.008	< 0.02	< 0.03	48	77	125	0.095	3.65	3.75	0.03	0.38	0.42	< 0.004	0.02	0.03
CS 42-1 85-95cm	< 0.008	< 0.02	< 0.03	106	878	984	0.263	13.06	13.32	0.07	21.60	21.67	< 0.004	0.04	0.04
CS 46-1 10-20cm	< 0.008	< 0.02	< 0.03	1239	496	1736	0.013	1.04	1.06	0.03	0.79	0.82	< 0.004	< 0.01	< 0.01
CS 46-1 50-60cm	< 0.008	< 0.02	< 0.03	28	< 50	< 70	0.009	0.55	0.56	< 0.02	0.09	0.10	< 0.004	< 0.01	< 0.01
CS 46-1 97-107cm	< 0.008	< 0.02	< 0.03	22	< 50	< 70	0.071	2.57	2.64	< 0.02	0.23	0.25	< 0.004	0.02	0.02
CS 48-1 12-18cm	< 0.008	< 0.02	< 0.03	851	315	1166	0.013	0.68	0.70	0.03	0.25	0.28	< 0.004	< 0.01	< 0.01
CS 48-1 100-105cm	< 0.008	< 0.02	< 0.03	63	< 50	108	0.051	2.33	2.38	< 0.02	0.16	0.17	< 0.004	0.02	0.02
CS 50-1 15-23cm	< 0.008	< 0.02	< 0.03	465	239	704	0.014	1.10	1.12	0.02	0.57	0.59	< 0.004	< 0.01	< 0.01
CS 50-1 64-74cm	< 0.008	< 0.02	< 0.03	28	< 50	< 70	0.009	0.48	0.49	0.02	0.06	0.08	< 0.004	< 0.01	< 0.01
CS 50-1 104-114cm	< 0.008	< 0.02	< 0.03	23	< 50	< 70	0.051	1.66	1.71	0.03	0.10	0.13	< 0.004	0.01	< 0.01
CS 52-1 6-13cm	< 0.008	< 0.02	< 0.03	323	182	505	0.014	0.99	1.00	0.02	0.30	0.32	< 0.004	< 0.01	< 0.01
CS 52-1 49-54cm	< 0.008	< 0.02	< 0.03	195	76	271	< 0.008	0.45	0.45	0.02	0.07	0.09	< 0.004	< 0.01	< 0.01
CS 52-1 94-98cm	< 0.008	< 0.02	< 0.03	42	149	191	0.027	1.21	1.24	0.04	0.52	0.57	< 0.004	< 0.01	< 0.01
CS 54-1 10-23cm	< 0.008	< 0.02	< 0.03	178	82	260	< 0.008	0.45	0.45	0.02	0.14	0.17	< 0.004	< 0.01	< 0.01
CS 56-1 13-18cm	< 0.008	< 0.02	< 0.03	481	236	717	0.018	0.98	0.99	0.03	0.33	0.36	< 0.004	< 0.01	< 0.01
CS 56-1 48-53cm	< 0.008	< 0.02	< 0.03	175	78	252	0.008	0.54	0.55	0.02	0.08	0.11	< 0.004	< 0.01	< 0.01
CS 58-1 10-22cm	< 0.008	< 0.02	< 0.03	1408	558	1966	0.017	0.64	0.65	0.04	0.21	0.25	< 0.004	< 0.01	< 0.01
REPEATS															
CS 1-1 0-10cm	< 0.008	< 0.02	< 0.03	181	1127	1308	0.074	6.48	6.55	0.17	6.72	6.89	< 0.004	0.04	0.04
CS 1-1 0-10cm REP	< 0.008	< 0.02	< 0.03	183	1116	1298	0.072	7.07	7.14	0.17	7.18	7.35	< 0.004	0.04	0.04
CS 17-1B 70-75 cm	< 0.008	< 0.02	< 0.03	66	1037	1103	0.226	13.50	13.72	0.15	6.28	6.43	< 0.004	0.06	0.06
CS 17-1B 70-75 cm	< 0.008	< 0.02	< 0.03	48	1007	1055	0.237	13.07	13.30	0.16	6.00	6.16	< 0.004	0.06	0.06
CS 25-1 23-28cm	< 0.008	< 0.02	< 0.03	162	75	237	< 0.008	0.61	0.62	< 0.02	0.14	0.15	< 0.004	< 0.01	< 0.01
CS 25-1 23-28cm REP	< 0.008	< 0.02	< 0.03	171	77	248	0.009	0.61	0.62	< 0.02	0.15	0.16	< 0.004	< 0.01	< 0.01
CS 38-1 38-43cm	< 0.008	< 0.02	< 0.03	261	927	1187	0.234	12.82	13.05	0.21	6.81	7.03	< 0.004	0.06	0.06
CS 38-1 38-43cm REP	< 0.008	< 0.02	< 0.03	256	932	1187	0.240	12.92	13.16	0.21	6.73	6.94	< 0.004	0.06	0.06
CS 52-1 49-54cm	< 0.008	< 0.02	< 0.03	195	76	271	< 0.008	0.45	0.45	0.02	0.07	0.09	< 0.004	< 0.01	< 0.01
CS 52-1 49-54cm REP	< 0.008	< 0.02	< 0.03	205	75	280	< 0.008	0.42	0.43	0.02	0.06	0.08	< 0.004	< 0.01	< 0.01
CONTROLS															
BLANK	< 0.008	< 0.02	< 0.03	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.02	< 0.04	< 0.06	< 0.004	< 0.01	< 0.01
BLANK	< 0.008	< 0.02	< 0.03	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.02	< 0.04	< 0.06	< 0.004	< 0.01	< 0.01
BLANK	< 0.008	< 0.02	< 0.03	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.02	< 0.04	< 0.06	< 0.004	< 0.01	< 0.01
LKSD-4	0.024	0.03	0.05	128	956	1084	2.228	18.61	20.84	0.06	8.84	8.90	0.024	0.21	0.23
LKSD-4	0.024	0.03	0.06	124	975	1099	2.331	18.64	20.97	0.07	8.62	8.69	0.026	0.20	0.23
LKSD-4	0.021	0.03	0.05	126	946	1072	2.362	18.61	20.97	0.06	8.61	8.67	0.025	0.21	0.23

Provisional Values

	Mg ICP-ES 1M NH4OAc 2 hr pH 5.0 ppm	Mg ICP-ES Aqua Regia ppm	Mg ICP-ES SUM ppm	Mn ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Mn ICP-MS Aqua Regia ppm	Mn ICP-MS Sum ppm	Mo ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Mo ICP-MS Aqua Regia ppm	Mo ICP-MS Sum ppm	Na ICP-ES 1M NH4OAc 2 hr pH 5.0 ppm	Na ICP-ES Aqua Regia ppm	Na ICP-ES SUM ppm	Nb ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Nb ICP-MS Aqua Regia ppm	Nb ICP-MS Sum ppm
D.L.	2	5	7	0.08	0.2	0.3	0.04	0.1	0.1	20	50	70	0.008	0.02	0.03
CS 1-1 0-10cm	2592	2798	5390	132.63	107.4	240.0	< 0.04	0.3	0.3	22	< 50	< 70	< 0.008	0.81	0.80
CS 5-1 0-10cm	3943	1374	5317	226.52	120.9	347.4	< 0.04	0.6	0.6	48	< 50	77	< 0.008	0.13	0.13
CS 9-1 0-10cm	4432	1743	6176	2013.57	1135.2	3148.8	< 0.04	1.3	1.3	24	< 50	< 70	< 0.008	0.03	0.03
CS 9-1 55-61cm	3936	1245	5181	64.25	147.8	212.0	< 0.04	0.3	0.3	< 20	< 50	< 70	< 0.008	0.45	0.44
CS 11-1 0-10cm	5203	2240	7442	520.02	416.7	936.7	< 0.04	0.9	0.9	31	< 50	< 70	< 0.008	0.06	0.05
CS 11-1 44-47cm	3585	4797	8382	48.28	192.9	241.2	< 0.04	0.1	< 0.1	< 20	< 50	< 70	< 0.008	2.11	2.11
CS 13-1 0-5cm	2584	786	3370	1628.19	609.4	2237.6	< 0.04	0.6	0.6	27	< 50	< 70	< 0.008	0.06	0.06
CS 13-1 45-49cm	4064	1575	5639	155.54	306.2	461.7	< 0.04	0.2	0.2	22	< 50	< 70	< 0.008	0.57	0.57
CS 17-1 0-5cm	4647	1715	6362	56.92	51.9	108.8	< 0.04	0.7	0.7	< 20	< 50	< 70	< 0.008	0.03	0.03
CS 17-1B 70-75 cm	3299	2261	5560	209.12	176.9	386.1	< 0.04	0.5	0.5	33	< 50	< 70	< 0.008	1.22	1.22
CS 19-1 0-10cm	5987	1963	7949	645.51	435.8	1081.3	< 0.04	0.7	0.7	46	< 50	< 70	< 0.008	0.07	0.06
CS 19-1 59-64cm	3835	1305	5140	77.96	90.8	168.7	< 0.04	0.3	0.3	54	< 50	78	< 0.008	0.04	0.04
CS 21-1 0-10cm	6495	2182	8676	960.47	738.2	1698.6	< 0.04	0.8	0.8	< 20	< 50	< 70	< 0.008	0.09	0.09
CS 21-1 59-62cm	3209	1150	4359	58.33	64.2	122.6	< 0.04	0.1	< 0.1	< 20	< 50	< 70	< 0.008	0.30	0.30
CS 21-1 89-94cm	5055	1699	6754	50.79	69.3	120.1	< 0.04	0.1	< 0.1	26	< 50	< 70	< 0.008	0.35	0.35
CS 23-1 0-10cm	5167	1635	6802	3935.95	2202.6	6138.5	< 0.04	1.3	1.3	43	< 50	< 70	< 0.008	0.04	0.04
CS 25-1A 0-10cm	5063	1960	7023	1550.45	1003.0	2553.4	< 0.04	0.8	0.8	67	< 50	94	< 0.008	0.02	< 0.03
CS 25-1 23-28cm	4603	1603	6205	158.44	130.8	289.3	< 0.04	0.5	0.5	78	< 50	108	< 0.008	0.04	0.04
CS 25-1 58-63cm	3329	1084	4413	127.94	95.7	223.7	< 0.04	0.2	0.2	33	< 50	< 70	< 0.008	0.08	0.07
CS 27-1 0-5cm	5278	2112	7390	49.82	48.1	98.0	< 0.04	1.7	1.7	23	< 50	< 70	< 0.008	0.14	0.14
CS 27-1 56-66cm	5373	1829	7202	87.80	70.0	157.8	< 0.04	0.6	0.6	< 20	< 50	< 70	< 0.008	0.13	0.13
CS 38-1 28-33cm	3779	1525	5304	33.37	28.0	61.4	< 0.04	0.3	0.3	36	< 50	< 70	< 0.008	0.37	0.37
CS 38-1 38-43cm	3493	1973	5466	58.27	45.5	103.8	< 0.04	0.2	0.2	35	< 50	74	< 0.008	1.18	1.18
CS 42-1 0-8cm	4416	1933	6349	1456.12	914.9	2371.0	< 0.04	1.0	1.0	32	< 50	< 70	< 0.008	0.03	< 0.03
CS 42-1 48-53cm	3668	1365	5033	79.96	49.6	129.5	< 0.04	0.3	0.3	39	< 50	73	< 0.008	0.24	0.24
CS 42-1 85-95cm	2589	7361	9949	84.45	201.2	285.6	< 0.04	0.5	0.4	29	< 50	< 70	< 0.008	1.85	1.85
CS 46-1 10-20cm	4899	1926	6825	355.28	221.3	576.5	< 0.04	0.7	0.7	21	< 50	< 70	< 0.008	0.13	0.13
CS 46-1 50-60cm	3761	1298	5060	73.65	56.0	129.7	< 0.04	0.5	0.5	< 20	< 50	< 70	< 0.008	0.05	0.05
CS 46-1 97-107cm	3565	1205	4770	77.41	194.6	272.0	< 0.04	0.4	0.4	26	< 50	< 70	< 0.008	0.19	0.19
CS 48-1 12-18cm	4504	1650	6153	169.03	181.6	350.6	< 0.04	1.0	1.0	71	< 50	95	< 0.008	0.04	0.04
CS 48-1 100-105cm	3723	1286	5009	132.84	88.7	221.5	< 0.04	0.4	0.4	59	< 50	80	< 0.008	0.15	0.15
CS 50-1 15-23cm	5004	1839	6842	377.71	258.6	636.3	< 0.04	0.6	0.6	25	< 50	< 70	< 0.008	0.12	0.11
CS 50-1 64-74cm	3623	1220	4842	83.60	59.0	142.6	< 0.04	0.5	0.5	32	< 50	< 70	< 0.008	0.02	< 0.03
CS 50-1 104-114cm	3297	1081	4378	217.47	120.3	337.8	< 0.04	0.3	0.3	45	< 50	< 70	< 0.008	0.05	0.04
CS 52-1 6-13cm	4647	1767	6414	111.10	76.7	187.8	< 0.04	0.6	0.6	29	< 50	< 70	< 0.008	0.04	0.04
CS 52-1 49-54cm	4064	1461	5525	109.40	73.9	183.3	< 0.04	0.5	0.5	49	< 50	< 70	< 0.008	< 0.02	< 0.03
CS 52-1 94-98cm	3095	1219	4314	219.01	129.8	348.8	< 0.04	0.3	0.3	46	< 50	< 70	< 0.008	0.11	0.10
CS 54-1 10-23cm	4172	1522	5693	147.37	107.6	255.0	< 0.04	1.9	1.9	68	< 50	96	< 0.008	0.12	0.12
CS 56-1 13-18cm	4632	1779	6411	116.08	74.5	190.5	< 0.04	0.8	0.8	54	< 50	75	< 0.008	0.08	0.07
CS 56-1 48-53cm	4364	1678	6042	42.75	28.6	71.3	< 0.04	0.5	0.5	52	< 50	73	< 0.008	0.04	0.03
CS 58-1 10-22cm	4328	1855	6184	178.16	150.7	328.8	< 0.04	0.7	0.7	150	59	209	< 0.008	< 0.02	< 0.03
REPEATS															
CS 1-1 0-10cm	2592	2798	5390	132.63	107.4	240.0	< 0.04	0.3	0.3	22	< 50	< 70	< 0.008	0.81	0.80
CS 1-1 0-10cm REP	2637	2798	5435	133.16	120.9	254.1	< 0.04	0.3	0.3	21	< 50	< 70	< 0.008	0.87	0.87
CS 17-1B 70-75 cm	3299	2261	5560	209.12	176.9	386.1	< 0.04	0.5	0.5	33	< 50	< 70	< 0.008	1.22	1.22
CS 17-1B 70-75 cm	3137	2232	5368	213.99	179.8	393.8	< 0.04	0.4	0.4	30	< 50	< 70	< 0.008	1.20	1.20
CS 25-1 23-28cm	4603	1603	6205	158.44	130.8	289.3	< 0.04	0.5	0.5	78	< 50	108	< 0.008	0.04	0.04
CS 25-1 23-28cm REP	4900	1633	6532	173.65	123.8	297.5	< 0.04	0.4	0.4	80	< 50	108	< 0.008	0.07	0.07
CS 38-1 38-43cm	3493	1973	5466	58.27	45.5	103.8	< 0.04	0.2	0.2	35	< 50	74	< 0.008	1.18	1.18
CS 38-1 38-43cm REP	3537	1978	5515	59.16	45.1	104.3	< 0.04	0.2	0.2	35	< 50	76	< 0.008	1.18	1.18
CS 52-1 49-54cm	4064	1461	5525	109.40	73.9	183.3	< 0.04	0.5	0.5	49	< 50	< 70	< 0.008	< 0.02	< 0.03
CS 52-1 49-54cm REP	4118	1453	5571	104.70	71.6	176.3	< 0.04	0.5	0.5	51	< 50	78	< 0.008	< 0.02	< 0.03
CONTROLS															
BLANK	< 2	< 5	< 7	< 0.08	< 0.2	< 0.3	< 0.04	< 0.1	< 0.1	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03
BLANK	< 2	< 5	< 7	< 0.08	< 0.2	< 0.3	< 0.04	< 0.1	< 0.1	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03
BLANK	< 2	< 5	< 7	< 0.08	< 0.2	< 0.3	< 0.04	< 0.1	< 0.1	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03
LKSD-4	418	3136	3553	191.87	219.5	411.3	0.09	1.6	1.7	41	135	176	0.012	0.99	1.00
LKSD-4	424	3142	3566	206.98	216.6	423.6	0.09	1.5	1.6	37	146	183	0.014	1.03	1.05
LKSD-4	406	3098	3504	208.82	213.0	421.9	0.09	1.5	1.6	39	134	173	0.021	0.97	0.99
Provisional Values			0.41 ± 0.05%			430 ± 30			2 ± 1						

D.L.	Nd ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm 0.004	Nd ICP-MS Aqua Regia ppm 0.01	Nd ICP-MS Sum ppm 0.01	Ni ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm 0.2	Ni ICP-MS Aqua Regia ppm 0.4	Ni ICP-MS Sum ppm 0.6	P ICP-ES 1M NH4OAc 2 hr pH 5.0 ppm 20	P ICP-ES Aqua Regia ppm 50	P ICP-ES SUM ppm 70	Pb ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm 0.008	Pb ICP-MS Aqua Regia ppm 0.02	Pb ICP-MS Sum ppm 0.03	Pr ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm 0.004	Pr ICP-MS Aqua Regia ppm 0.01	Pr ICP-MS Sum ppm 0.01
CS 1-1 0-10cm	0.079	6.57	6.64	0.6	20.0	20.6	25	615	639	0.109	1.32	1.43	0.018	1.61	1.63
CS 5-1 0-10cm	0.029	1.11	1.14	< 0.2	2.0	2.1	174	590	765	7.145	23.24	30.39	0.006	0.27	0.28
CS 9-1 0-10cm	0.015	0.45	0.47	< 0.2	1.7	1.8	434	776	1210	4.171	14.06	18.23	< 0.004	0.11	0.12
CS 9-1 55-61cm	0.197	9.33	9.52	0.5	11.4	11.9	< 20	527	537	0.215	1.73	1.95	0.046	2.42	2.47
CS 11-1 0-10cm	0.013	0.80	0.81	< 0.2	2.1	2.2	181	683	864	2.366	11.28	13.64	< 0.004	0.20	0.20
CS 11-1 44-47cm	0.438	23.00	23.44	1.3	32.4	33.6	< 20	514	518	0.399	4.07	4.47	0.108	6.21	6.32
CS 13-1 0-5cm	0.026	0.60	0.62	< 0.2	1.7	1.9	136	702	838	4.451	9.09	13.54	0.006	0.15	0.16
CS 13-1 45-49cm	0.100	6.51	6.61	0.5	11.9	12.4	< 20	687	698	0.153	1.91	2.06	0.023	1.76	1.78
CS 17-1 0-5cm	0.006	0.47	0.47	< 0.2	1.8	1.8	61	753	814	0.074	0.73	0.80	< 0.004	0.13	0.13
CS 17-1B 70-75 cm	0.216	10.81	11.02	1.2	31.0	32.2	< 20	486	491	0.354	3.23	3.58	0.050	2.96	3.01
CS 19-1 0-10cm	0.013	0.93	0.94	< 0.2	1.6	1.6	201	883	1084	4.154	21.37	25.52	< 0.004	0.24	0.24
CS 19-1 59-64cm	0.006	0.53	0.54	< 0.2	2.2	2.2	< 20	405	414	< 0.008	0.35	0.35	< 0.004	0.14	0.14
CS 21-1 0-10cm	0.012	1.13	1.14	< 0.2	1.6	1.5	191	885	1076	1.697	12.73	14.42	< 0.004	0.28	0.28
CS 21-1 59-62cm	0.033	5.09	5.13	< 0.2	3.0	3.0	< 20	367	370	0.059	1.01	1.07	0.008	1.35	1.35
CS 21-1 89-94cm	0.049	2.80	2.85	< 0.2	4.3	4.4	< 20	380	384	0.049	0.81	0.86	0.010	0.74	0.75
CS 23-1 0-10cm	0.020	0.60	0.62	< 0.2	1.5	1.7	326	931	1257	6.578	31.28	37.86	0.004	0.16	0.17
CS 25-1A 0-10cm	0.014	0.60	0.61	< 0.2	1.7	1.7	210	598	808	4.998	18.36	23.36	< 0.004	0.16	0.16
CS 25-1 23-28cm	0.010	0.71	0.72	< 0.2	3.1	3.2	42	669	711	0.248	2.03	2.27	< 0.004	0.18	0.18
CS 25-1 58-63cm	0.025	1.09	1.11	0.2	6.5	6.8	< 20	442	446	0.030	0.46	0.49	0.005	0.28	0.28
CS 27-1 0-5cm	0.012	0.77	0.78	< 0.2	1.9	1.9	99	560	659	1.074	8.67	9.75	< 0.004	0.20	0.20
CS 27-1 56-66cm	0.020	1.29	1.31	< 0.2	2.8	2.8	< 20	279	291	0.045	0.61	0.65	0.004	0.33	0.33
CS 38-1 28-33cm	0.077	4.10	4.18	< 0.2	5.7	5.8	45	840	885	0.206	1.29	1.49	0.018	1.08	1.09
CS 38-1 38-43cm	0.221	10.94	11.16	0.6	12.9	13.5	22	883	905	0.408	2.58	2.99	0.052	2.93	2.98
CS 42-1 0-8cm	0.011	0.56	0.57	< 0.2	2.6	2.6	136	651	787	4.660	16.40	21.06	< 0.004	0.15	0.15
CS 42-1 48-53cm	0.083	3.22	3.30	0.3	7.2	7.4	< 20	520	531	0.075	0.59	0.66	0.019	0.81	0.83
CS 42-1 85-95cm	0.261	12.07	12.33	0.5	24.3	24.8	< 20	705	714	1.298	5.78	7.08	0.059	3.11	3.17
CS 46-1 10-20cm	0.014	1.04	1.06	< 0.2	2.3	2.4	198	858	1056	4.352	19.31	23.66	< 0.004	0.26	0.26
CS 46-1 50-60cm	0.008	0.53	0.54	< 0.2	2.7	2.7	< 20	451	461	0.069	0.59	0.66	< 0.004	0.13	0.13
CS 46-1 97-107cm	0.059	2.22	2.28	< 0.2	6.7	6.8	< 20	400	407	0.079	0.63	0.71	0.014	0.58	0.59
CS 48-1 12-18cm	0.011	0.64	0.66	< 0.2	1.5	1.5	90	721	810	3.694	15.44	19.14	< 0.004	0.16	0.16
CS 48-1 100-105cm	0.049	2.10	2.15	< 0.2	4.3	4.4	< 20	343	351	0.046	0.60	0.65	0.011	0.55	0.56
CS 50-1 15-23cm	0.015	1.10	1.11	< 0.2	1.9	1.9	150	629	779	5.867	27.90	33.77	< 0.004	0.29	0.29
CS 50-1 64-74cm	0.009	0.45	0.46	< 0.2	3.1	3.2	< 20	396	407	0.118	0.87	0.99	< 0.004	0.11	0.11
CS 50-1 104-114cm	0.045	1.26	1.31	0.2	6.0	6.2	< 20	365	370	0.091	0.62	0.71	0.010	0.33	0.34
CS 52-1 6-13cm	0.016	0.95	0.97	< 0.2	1.6	1.7	136	699	835	5.429	24.19	29.62	< 0.004	0.25	0.25
CS 52-1 49-54cm	0.009	0.46	0.46	< 0.2	2.8	2.8	< 20	445	464	0.021	0.41	0.43	< 0.004	0.12	0.12
CS 52-1 94-98cm	0.027	1.06	1.09	0.4	8.4	8.8	< 20	384	391	0.055	0.54	0.60	0.006	0.28	0.29
CS 54-1 10-23cm	0.005	0.46	0.46	< 0.2	1.5	1.6	67	627	695	0.192	1.60	1.79	< 0.004	0.12	0.12
CS 56-1 13-18cm	0.018	0.91	0.93	< 0.2	1.5	1.5	123	725	848	6.138	29.49	35.62	0.004	0.24	0.24
CS 56-1 48-53cm	0.009	0.54	0.55	< 0.2	3.5	3.5	< 20	408	421	0.027	0.42	0.45	< 0.004	0.14	0.14
CS 58-1 10-22cm	0.014	0.62	0.63	< 0.2	1.3	1.3	69	610	679	7.073	21.86	28.93	< 0.004	0.16	0.16
REPEATS															
CS 1-1 0-10cm	0.079	6.57	6.64	0.6	20.0	20.6	25	615	639	0.109	1.32	1.43	0.018	1.61	1.63
CS 1-1 0-10cm REP	0.077	6.61	6.69	0.5	20.8	21.3	21	610	631	0.096	1.44	1.53	0.017	1.77	1.79
CS 17-1B 70-75 cm	0.216	10.81	11.02	1.2	31.0	32.2	< 20	486	491	0.354	3.23	3.58	0.050	2.96	3.01
CS 17-1B 70-75 cm	0.211	10.76	10.97	1.2	30.5	31.6	< 20	493	497	0.381	3.06	3.45	0.050	2.94	2.99
CS 25-1 23-28cm	0.010	0.71	0.72	< 0.2	3.1	3.2	42	669	711	0.248	2.03	2.27	< 0.004	0.18	0.18
CS 25-1 23-28cm REP	0.011	0.72	0.73	< 0.2	3.8	3.8	45	689	734	0.256	1.89	2.15	< 0.004	0.17	0.17
CS 38-1 38-43cm	0.221	10.94	11.16	0.6	12.9	13.5	22	883	905	0.408	2.58	2.99	0.052	2.93	2.98
CS 38-1 38-43cm REP	0.218	10.77	10.99	0.5	12.7	13.3	24	883	907	0.408	2.62	3.03	0.052	2.84	2.89
CS 52-1 49-54cm	0.009	0.46	0.46	< 0.2	2.8	2.8	< 20	445	464	0.021	0.41	0.43	< 0.004	0.12	0.12
CS 52-1 49-54cm REP	0.007	0.43	0.44	< 0.2	2.8	2.8	< 20	426	445	0.018	0.39	0.41	< 0.004	0.12	0.12
CONTROLS															
BLANK	< 0.004	< 0.01	< 0.01	< 0.2	< 0.4	< 0.6	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01
BLANK	< 0.004	< 0.01	< 0.01	< 0.2	< 0.4	< 0.6	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01
BLANK	< 0.004	< 0.01	< 0.01	< 0.2	< 0.4	< 0.6	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01
LKSD-4	2.636	18.83	21.47	4.6	26.6	31.1	82	1194	1276	40.331	47.76	88.09	0.599	4.93	5.53
LKSD-4	2.757	18.79	21.55	4.7	26.7	31.4	75	1191	1266	42.837	47.78	90.61	0.637	4.86	5.50
LKSD-4	2.577	19.02	21.60	4.6	26.0	30.6	77	1201	1278	42.298	48.31	90.61	0.613	4.85	5.46
Provisional Values						31 ± 5			1440 ± 182			89 ± 4			

	Rb ICP-MS 1M NH4OAc 2 hr pH 5.0	Rb ICP-MS Aqua Regia	Rb ICP-MS Sum	Re ICP-MS 1M NH4OAc 2 hr pH 5.0	Re ICP-MS Aqua Regia	Re ICP-MS Sum	S ICP-ES 1M NH4OAc 2 hr pH 5.0	S ICP-ES Aqua Regia	S ICP-ES SUM	Sb ICP-MS 1M NH4OAc 2 hr pH 5.0	Sb ICP-MS Aqua Regia	Sb ICP-MS Sum	Sc ICP-ES 1M NH4OAc 2 hr pH 5.0	Sc ICP-ES Aqua Regia	Sc ICP-ES SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.04	0.1	0.1	0.004	0.01	0.01	20	50	70	0.008	0.02	0.03	0.4	1	1
CS 1-1 0-10cm	0.04	8.7	8.8	< 0.004	< 0.01	< 0.01	39	1295	1334	< 0.008	0.09	0.10	< 0.4	1	1
CS 5-1 0-10cm	0.39	1.0	1.3	< 0.004	< 0.01	< 0.01	50	1688	1738	< 0.008	0.36	0.36	< 0.4	< 1	< 1
CS 9-1 0-10cm	1.68	1.0	2.7	< 0.004	< 0.01	< 0.01	52	1743	1794	< 0.008	0.20	0.20	< 0.4	< 1	< 1
CS 9-1 55-61cm	0.12	2.2	2.3	< 0.004	< 0.01	< 0.01	46	1827	1873	0.010	0.08	0.09	< 0.4	1	1
CS 11-1 0-10cm	0.65	0.8	1.5	< 0.004	< 0.01	< 0.01	43	1889	1932	< 0.008	0.27	0.26	< 0.4	1	1
CS 11-1 44-47cm	1.47	24.3	25.8	< 0.004	< 0.01	< 0.01	27	1152	1179	0.018	0.10	0.11	< 0.4	5	5
CS 13-1 0-5cm	0.71	1.7	2.4	< 0.004	< 0.01	< 0.01	46	1460	1506	< 0.008	0.12	0.11	< 0.4	< 1	< 1
CS 13-1 45-49cm	0.16	3.1	3.3	< 0.004	< 0.01	< 0.01	50	1869	1919	< 0.008	0.09	0.09	< 0.4	1	1
CS 17-1 0-5cm	0.14	0.4	0.6	< 0.004	< 0.01	< 0.01	< 20	1891	1910	< 0.008	0.07	0.05	< 0.4	< 1	< 1
CS 17-1B 70-75 cm	0.24	8.4	8.6	< 0.004	< 0.01	< 0.01	< 20	1590	1607	< 0.008	0.05	0.04	< 0.4	3	3
CS 19-1 0-10cm	1.47	2.0	3.4	< 0.004	< 0.01	< 0.01	60	2407	2467	< 0.008	0.23	0.22	< 0.4	< 1	< 1
CS 19-1 59-64cm	0.06	0.2	0.3	< 0.004	< 0.01	< 0.01	< 20	1704	1720	< 0.008	0.02	< 0.03	< 0.4	< 1	< 1
CS 21-1 0-10cm	1.40	1.5	2.9	< 0.004	< 0.01	< 0.01	67	2554	2621	< 0.008	0.22	0.22	< 0.4	< 1	< 1
CS 21-1 59-62cm	< 0.04	1.5	1.5	< 0.004	< 0.01	< 0.01	< 20	1049	1068	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
CS 21-1 89-94cm	< 0.04	1.1	1.2	< 0.004	< 0.01	< 0.01	33	1988	2021	< 0.008	0.04	0.03	< 0.4	< 1	< 1
CS 23-1 0-10cm	2.77	1.4	4.2	< 0.004	< 0.01	< 0.01	62	1969	2030	< 0.008	0.34	0.34	< 0.4	< 1	< 1
CS 25-1A 0-10cm	0.83	1.1	1.9	< 0.004	< 0.01	< 0.01	58	1832	1890	< 0.008	0.22	0.22	< 0.4	< 1	< 1
CS 25-1 23-28cm	0.09	0.3	0.4	< 0.004	< 0.01	< 0.01	29	2057	2085	< 0.008	0.07	0.06	< 0.4	< 1	< 1
CS 25-1 58-63cm	< 0.04	0.3	0.3	< 0.004	< 0.01	< 0.01	21	2008	2029	< 0.008	0.05	0.05	< 0.4	< 1	< 1
CS 27-1 0-5cm	0.40	0.6	1.0	< 0.004	< 0.01	< 0.01	96	2831	2926	< 0.008	0.24	0.24	< 0.4	< 1	< 1
CS 27-1 56-66cm	0.04	0.4	0.4	< 0.004	< 0.01	< 0.01	72	1439	1511	< 0.008	0.06	0.06	< 0.4	< 1	< 1
CS 38-1 28-33cm	0.15	1.6	1.7	< 0.004	< 0.01	< 0.01	35	1754	1789	< 0.008	0.08	0.08	< 0.4	< 1	< 1
CS 38-1 38-43cm	0.28	7.6	7.9	< 0.004	< 0.01	< 0.01	30	1599	1629	0.019	0.09	0.11	< 0.4	3	3
CS 42-1 0-8cm	0.89	1.0	1.9	< 0.004	< 0.01	< 0.01	44	1976	2020	< 0.008	0.25	0.24	< 0.4	< 1	< 1
CS 42-1 48-53cm	< 0.04	0.4	0.4	< 0.004	< 0.01	< 0.01	25	1875	1901	< 0.008	0.06	0.06	< 0.4	< 1	< 1
CS 42-1 85-95cm	0.16	5.4	5.5	< 0.004	< 0.01	< 0.01	< 20	1031	1050	< 0.008	0.08	0.08	< 0.4	3	3
CS 46-1 10-20cm	1.56	3.2	4.8	< 0.004	< 0.01	< 0.01	56	2540	2595	< 0.008	0.24	0.23	< 0.4	< 1	< 1
CS 46-1 50-60cm	0.05	0.2	0.3	< 0.004	< 0.01	< 0.01	< 20	1774	1789	< 0.008	0.03	< 0.03	< 0.4	< 1	< 1
CS 46-1 97-107cm	0.05	0.3	0.3	< 0.004	< 0.01	< 0.01	< 20	1810	1830	< 0.008	0.05	0.04	< 0.4	< 1	< 1
CS 48-1 12-18cm	1.16	1.3	2.5	< 0.004	< 0.01	< 0.01	61	2512	2573	< 0.008	0.29	0.28	< 0.4	< 1	< 1
CS 48-1 100-105cm	0.08	0.3	0.3	< 0.004	< 0.01	< 0.01	< 20	1867	1882	< 0.008	0.04	0.03	< 0.4	< 1	< 1
CS 50-1 15-23cm	0.64	1.7	2.4	< 0.004	< 0.01	< 0.01	63	2254	2317	< 0.008	0.29	0.28	< 0.4	< 1	< 1
CS 50-1 64-74cm	0.04	0.1	0.2	< 0.004	< 0.01	< 0.01	< 20	1605	1624	< 0.008	0.03	< 0.03	< 0.4	< 1	< 1
CS 50-1 104-114cm	< 0.04	0.1	0.2	< 0.004	< 0.01	< 0.01	28	1790	1817	< 0.008	0.05	0.05	< 0.4	< 1	< 1
CS 52-1 6-13cm	0.46	1.1	1.5	< 0.004	< 0.01	< 0.01	72	2740	2812	< 0.008	0.31	0.30	< 0.4	< 1	< 1
CS 52-1 49-54cm	0.22	0.2	0.5	< 0.004	< 0.01	< 0.01	22	1833	1855	< 0.008	0.04	0.03	< 0.4	< 1	< 1
CS 52-1 94-98cm	0.10	1.2	1.3	< 0.004	< 0.01	< 0.01	< 20	1802	1815	< 0.008	0.04	0.04	< 0.4	< 1	< 1
CS 54-1 10-23cm	0.15	0.3	0.5	< 0.004	< 0.01	< 0.01	41	2422	2463	< 0.008	0.12	0.12	< 0.4	< 1	< 1
CS 56-1 13-18cm	0.56	1.2	1.8	< 0.004	< 0.01	< 0.01	176	3776	3952	< 0.008	0.33	0.33	< 0.4	< 1	< 1
CS 56-1 48-53cm	0.24	0.4	0.7	< 0.004	< 0.01	< 0.01	< 20	1701	1716	< 0.008	0.04	0.03	< 0.4	< 1	< 1
CS 58-1 10-22cm	1.64	1.3	3.0	< 0.004	< 0.01	< 0.01	210	3175	3384	< 0.008	0.28	0.27	< 0.4	< 1	< 1
REPEATS															
CS 1-1 0-10cm	0.04	8.7	8.8	< 0.004	< 0.01	< 0.01	39	1295	1334	< 0.008	0.09	0.10	< 0.4	1	1
CS 1-1 0-10cm REP	0.04	9.4	9.4	< 0.004	< 0.01	< 0.01	34	1287	1321	< 0.008	0.10	0.09	< 0.4	1	< 1
CS 17-1B 70-75 cm	0.24	8.4	8.6	< 0.004	< 0.01	< 0.01	< 20	1590	1607	< 0.008	0.05	0.04	< 0.4	3	3
CS 17-1B 70-75 cm	0.22	8.4	8.6	< 0.004	< 0.01	< 0.01	< 20	1618	1632	< 0.008	0.06	0.05	< 0.4	3	2
CS 25-1 23-28cm	0.09	0.3	0.4	< 0.004	< 0.01	< 0.01	29	2057	2085	< 0.008	0.07	0.06	< 0.4	< 1	< 1
CS 25-1 23-28cm REP	0.09	0.3	0.4	< 0.004	< 0.01	< 0.01	30	2069	2099	< 0.008	0.06	0.05	< 0.4	< 1	< 1
CS 38-1 38-43cm	0.28	7.6	7.9	< 0.004	< 0.01	< 0.01	30	1599	1629	0.019	0.09	0.11	< 0.4	3	3
CS 38-1 38-43cm REP	0.27	7.4	7.7	< 0.004	< 0.01	< 0.01	24	1587	1611	0.012	0.09	0.11	< 0.4	3	3
CS 52-1 49-54cm	0.22	0.2	0.5	< 0.004	< 0.01	< 0.01	22	1833	1855	< 0.008	0.04	0.03	< 0.4	< 1	< 1
CS 52-1 49-54cm REP	0.20	0.2	0.4	< 0.004	< 0.01	< 0.01	21	1747	1767	< 0.008	0.04	0.03	< 0.4	< 1	< 1
CONTROLS															
BLANK	< 0.04	< 0.1	< 0.1	< 0.004	< 0.01	< 0.01	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
BLANK	< 0.04	< 0.1	< 0.1	< 0.004	< 0.01	< 0.01	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
BLANK	< 0.04	< 0.1	< 0.1	< 0.004	< 0.01	< 0.01	< 20	< 50	< 70	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
LKSD-4	0.72	9.0	9.7	< 0.004	< 0.01	< 0.01	2884	6763	9648	0.189	1.01	1.20	< 0.4	3	3
LKSD-4	0.76	9.0	9.7	< 0.004	< 0.01	< 0.01	2737	6775	9511	0.198	1.03	1.23	< 0.4	3	3
LKSD-4	0.74	8.9	9.6	< 0.004	< 0.01	< 0.01	2716	6777	9493	0.198	1.02	1.22	< 0.4	3	3
Provisional Values												1.5 ± 0.6			

	Se ICP-MS 1M NH4OAc 2 hr pH 5.0	Se ICP-MS Aqua Regia	Se ICP-MS Sum	Si ICP-ES 1M NH4OAc 2 hr pH 5.0	Si ICP-ES Aqua Regia	Si ICP-ES SUM	Sm ICP-MS 1M NH4OAc 2 hr pH 5.0	Sm ICP-MS Aqua Regia	Sm ICP-MS Sum	Sn ICP-MS 1M NH4OAc 2 hr pH 5.0	Sn ICP-MS Aqua Regia	Sn ICP-MS Sum	Sr ICP-ES 1M NH4OAc 2 hr pH 5.0	Sr ICP-ES Aqua Regia	Sr ICP-ES SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.8	2	3	8	20	28	0.004	0.01	0.01	0.008	0.02	0.03	0.4	1	1
CS 1-1 0-10cm	< 0.8	< 2	< 3	37	506	542	0.017	1.22	1.24	< 0.008	0.18	0.18	31.6	25	57
CS 5-1 0-10cm	< 0.8	< 2	< 3	199	906	1105	0.006	0.21	0.22	< 0.008	0.19	0.19	27.2	17	44
CS 9-1 0-10cm	< 0.8	< 2	< 3	50	582	632	< 0.004	0.09	0.09	< 0.008	0.07	0.07	21.2	15	36
CS 9-1 55-61cm	< 0.8	< 2	< 3	< 8	685	688	0.042	1.58	1.62	< 0.008	0.13	0.12	27.8	24	51
CS 11-1 0-10cm	< 0.8	< 2	< 3	21	694	715	< 0.004	0.17	0.18	< 0.008	0.12	0.12	19.6	17	36
CS 11-1 44-47cm	< 0.8	< 2	< 3	31	680	711	0.081	3.70	3.79	< 0.008	0.51	0.51	27.7	23	51
CS 13-1 0-5cm	< 0.8	< 2	< 3	80	510	591	0.006	0.11	0.11	< 0.008	0.07	0.07	10.4	5	16
CS 13-1 45-49cm	< 0.8	< 2	< 3	13	686	699	0.017	1.13	1.15	< 0.008	0.13	0.13	24.6	22	47
CS 17-1 0-5cm	< 0.8	< 2	< 3	10	248	258	< 0.004	0.10	0.10	< 0.008	0.02	< 0.03	14.0	12	26
CS 17-1B 70-75 cm	< 0.8	< 2	< 3	33	691	724	0.042	1.87	1.91	< 0.008	0.49	0.49	26.5	21	47
CS 19-1 0-10cm	< 0.8	< 2	< 3	93	820	913	< 0.004	0.19	0.19	< 0.008	0.19	0.19	16.2	13	29
CS 19-1 59-64cm	< 0.8	< 2	< 3	< 8	163	166	< 0.004	0.10	0.10	< 0.008	< 0.02	< 0.03	17.3	14	31
CS 21-1 0-10cm	< 0.8	< 2	< 3	97	712	809	< 0.004	0.22	0.22	< 0.008	0.10	0.10	18.1	17	35
CS 21-1 59-62cm	< 0.8	< 2	< 3	11	506	517	0.007	0.93	0.94	< 0.008	0.07	0.07	10.5	7	17
CS 21-1 89-94cm	< 0.8	< 2	< 3	10	764	773	0.010	0.51	0.52	< 0.008	0.09	0.09	17.8	14	32
CS 23-1 0-10cm	< 0.8	< 2	< 3	146	618	764	0.005	0.11	0.12	< 0.008	0.12	0.12	16.1	11	27
CS 25-1A 0-10cm	< 0.8	< 2	< 3	30	706	736	< 0.004	0.12	0.12	< 0.008	0.13	0.12	15.6	11	27
CS 25-1 23-28cm	< 0.8	< 2	< 3	29	329	359	< 0.004	0.16	0.16	< 0.008	0.03	< 0.03	20.6	19	39
CS 25-1 58-63cm	< 0.8	< 2	< 3	12	360	373	0.007	0.21	0.21	< 0.008	0.03	< 0.03	23.8	19	43
CS 27-1 0-5cm	< 0.8	< 2	< 3	42	446	488	< 0.004	0.17	0.17	< 0.008	0.07	0.07	26.4	23	49
CS 27-1 56-66cm	< 0.8	< 2	< 3	12	426	437	0.005	0.25	0.25	< 0.008	0.03	0.03	37.5	30	68
CS 38-1 28-33cm	< 0.8	< 2	< 3	24	844	868	0.016	0.75	0.77	< 0.008	0.07	0.07	18.5	16	34
CS 38-1 38-43cm	< 0.8	< 2	< 3	35	805	840	0.046	1.94	1.98	< 0.008	0.32	0.31	17.4	15	32
CS 42-1 0-8cm	< 0.8	< 2	< 3	69	633	702	< 0.004	0.11	0.11	< 0.008	0.12	0.11	15.1	12	27
CS 42-1 48-53cm	< 0.8	< 2	< 3	15	648	662	0.019	0.58	0.60	< 0.008	0.05	0.04	21.0	17	38
CS 42-1 85-95cm	< 0.8	< 2	< 3	19	585	604	0.054	2.18	2.24	< 0.008	0.34	0.34	12.8	9	21
CS 46-1 10-20cm	< 0.8	< 2	< 3	122	761	883	< 0.004	0.20	0.21	< 0.008	0.15	0.14	13.8	11	25
CS 46-1 50-60cm	< 0.8	< 2	< 3	11	228	239	< 0.004	0.11	0.11	< 0.008	0.02	< 0.03	17.4	14	31
CS 46-1 97-107cm	< 0.8	< 2	< 3	8	406	414	0.013	0.39	0.40	< 0.008	0.04	0.04	25.4	19	44
CS 48-1 12-18cm	< 0.8	< 2	< 3	70	638	708	< 0.004	0.13	0.14	< 0.008	0.09	0.09	13.0	10	23
CS 48-1 100-105cm	< 0.8	< 2	< 3	15	272	287	0.011	0.38	0.39	< 0.008	0.04	0.04	25.4	21	46
CS 50-1 15-23cm	< 0.8	< 2	< 3	77	813	890	0.004	0.22	0.22	< 0.008	0.18	0.18	18.0	14	32
CS 50-1 64-74cm	< 0.8	< 2	< 3	10	169	179	< 0.004	0.08	0.09	< 0.008	0.03	< 0.03	23.0	18	41
CS 50-1 104-114cm	< 0.8	< 2	< 3	19	200	219	0.009	0.25	0.26	< 0.008	0.03	< 0.03	24.3	19	43
CS 52-1 6-13cm	< 0.8	< 2	< 3	63	887	950	< 0.004	0.19	0.20	< 0.008	0.21	0.20	21.3	17	38
CS 52-1 49-54cm	< 0.8	< 2	< 3	29	159	188	< 0.004	0.10	0.10	< 0.008	< 0.02	< 0.03	25.6	21	46
CS 52-1 94-98cm	< 0.8	< 2	< 3	38	655	693	0.006	0.20	0.21	< 0.008	0.03	0.03	25.3	19	44
CS 54-1 10-23cm	< 0.8	< 2	< 3	34	343	378	< 0.004	0.09	0.09	< 0.008	0.03	0.03	19.0	16	35
CS 56-1 13-18cm	< 0.8	< 2	< 3	62	880	941	0.004	0.18	0.18	< 0.008	0.18	0.18	19.1	15	34
CS 56-1 48-53cm	< 0.8	< 2	< 3	23	192	215	< 0.004	0.12	0.12	< 0.008	< 0.02	< 0.03	23.6	19	43
CS 58-1 10-22cm	< 0.8	< 2	< 3	< 8	646	651	0.004	0.13	0.13	< 0.008	0.13	0.13	19.2	15	34
REPEATS															
CS 1-1 0-10cm	< 0.8	< 2	< 3	37	506	542	0.017	1.22	1.24	< 0.008	0.18	0.18	31.6	25	57
CS 1-1 0-10cm REP	< 0.8	< 2	< 3	34	506	541	0.017	1.28	1.29	< 0.008	0.20	0.20	31.7	26	57
CS 17-1B 70-75 cm	< 0.8	< 2	< 3	33	691	724	0.042	1.87	1.91	< 0.008	0.49	0.49	26.5	21	47
CS 17-1B 70-75 cm	< 0.8	< 2	< 3	30	710	740	0.044	1.82	1.86	< 0.008	0.47	0.47	25.3	21	46
CS 25-1 23-28cm	< 0.8	< 2	< 3	29	329	359	< 0.004	0.16	0.16	< 0.008	0.03	< 0.03	20.6	19	39
CS 25-1 23-28cm REP	< 0.8	< 2	< 3	30	341	370	< 0.004	0.14	0.15	< 0.008	0.03	< 0.03	21.8	19	41
CS 38-1 38-43cm	< 0.8	< 2	< 3	35	805	840	0.046	1.94	1.98	< 0.008	0.32	0.31	17.4	15	32
CS 38-1 38-43cm REP	< 0.8	< 2	< 3	35	790	824	0.046	1.88	1.93	< 0.008	0.32	0.32	17.4	15	32
CS 52-1 49-54cm	< 0.8	< 2	< 3	29	159	188	< 0.004	0.10	0.10	< 0.008	< 0.02	< 0.03	25.6	21	46
CS 52-1 49-54cm REP	< 0.8	< 2	< 3	30	146	176	< 0.004	0.09	0.09	< 0.008	< 0.02	< 0.03	26.3	20	47
CONTROLS															
BLANK	< 0.8	< 2	< 3	< 8	< 20	< 28	< 0.004	< 0.01	< 0.01	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
BLANK	< 0.8	< 2	< 3	< 8	< 20	< 28	< 0.004	< 0.01	< 0.01	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
BLANK	< 0.8	< 2	< 3	< 8	< 20	< 28	< 0.004	< 0.01	< 0.01	< 0.008	< 0.02	< 0.03	< 0.4	< 1	< 1
LKSD-4	< 0.8	2	< 3	38	718	756	0.552	3.48	4.03	0.027	2.88	2.91	23.5	15	39
LKSD-4	< 0.8	2	< 3	34	650	684	0.574	3.40	3.97	0.030	2.90	2.92	23.3	16	39
LKSD-4	< 0.8	2	< 3	36	443	479	0.568	3.56	4.13	0.027	2.94	2.96	22.4	16	38
Provisional Values															41 ± 5

	Ta ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Ta ICP-MS Aqua Regia ppm	Ta ICP-MS Sum ppm	Tb ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Tb ICP-MS Aqua Regia ppm	Tb ICP-MS Sum ppm	Te ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Te ICP-MS Aqua Regia ppm	Te ICP-MS Sum ppm	Th ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Th ICP-MS Aqua Regia ppm	Th ICP-MS Sum ppm	Ti ICP-ES 1M NH4OAc 2 hr pH 5.0 ppm	Ti ICP-ES Aqua Regia ppm	Ti ICP-ES SUM ppm
D.L.	0.008	0.02	0.03	0.004	0.01	0.01	0.02	0.04	0.06	0.02	0.04	0.06	0.8	2	3
CS 1-1 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.13	0.13	< 0.02	< 0.04	< 0.06	< 0.02	0.37	0.37	< 0.8	321	321
CS 5-1 0-10cm	< 0.008	0.05	0.05	< 0.004	0.02	0.03	< 0.02	< 0.04	< 0.06	0.04	0.20	0.24	< 0.8	40	40
CS 9-1 0-10cm	< 0.008	0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	0.03	0.04	0.07	< 0.8	11	11
CS 9-1 55-61cm	< 0.008	< 0.02	< 0.03	0.005	0.17	0.18	< 0.02	< 0.04	< 0.06	< 0.02	0.65	0.66	< 0.8	145	145
CS 11-1 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	0.06	0.06	< 0.02	0.10	0.10	< 0.8	25	25
CS 11-1 44-47cm	< 0.008	< 0.02	< 0.03	0.009	0.37	0.38	< 0.02	< 0.04	< 0.06	< 0.02	3.28	3.29	< 0.8	876	877
CS 13-1 0-5cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	0.02	< 0.02	< 0.04	< 0.06	< 0.02	0.09	0.10	< 0.8	25	25
CS 13-1 45-49cm	< 0.008	< 0.02	< 0.03	< 0.004	0.13	0.13	< 0.02	< 0.04	< 0.06	< 0.02	0.68	0.68	< 0.8	198	198
CS 17-1 0-5cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	11	11
CS 17-1B 70-75 cm	< 0.008	< 0.02	< 0.03	0.005	0.21	0.21	< 0.02	< 0.04	< 0.06	< 0.02	2.10	2.11	0.9	477	478
CS 19-1 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	0.05	< 0.06	< 0.02	0.16	0.16	< 0.8	29	29
CS 19-1 59-64cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	17	18
CS 21-1 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 0.02	0.21	0.21	< 0.8	28	28
CS 21-1 59-62cm	< 0.008	< 0.02	< 0.03	< 0.004	0.10	0.10	< 0.02	< 0.04	< 0.06	< 0.02	1.16	1.16	< 0.8	144	144
CS 21-1 89-94cm	< 0.008	< 0.02	< 0.03	< 0.004	0.07	0.07	< 0.02	< 0.04	< 0.06	< 0.02	0.44	0.45	0.8	128	129
CS 23-1 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	0.10	0.11	< 0.02	0.08	0.08	< 0.8	15	15
CS 25-1A 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 0.02	0.06	0.07	< 0.8	15	16
CS 25-1 23-28cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 0.02	0.05	< 0.06	< 0.8	20	20
CS 25-1 58-63cm	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	33	33
CS 27-1 0-5cm	< 0.008	0.05	0.05	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	0.08	0.16	0.24	< 0.8	22	22
CS 27-1 56-66cm	< 0.008	0.03	< 0.03	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 0.02	0.15	0.16	< 0.8	41	41
CS 38-1 28-33cm	< 0.008	0.02	< 0.03	< 0.004	0.09	0.09	< 0.02	< 0.04	< 0.06	0.03	0.35	0.37	< 0.8	117	117
CS 38-1 38-43cm	< 0.008	< 0.02	< 0.03	0.006	0.20	0.20	< 0.02	< 0.04	< 0.06	< 0.02	1.53	1.54	< 0.8	398	399
CS 42-1 0-8cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	0.03	0.06	0.09	< 0.8	16	16
CS 42-1 48-53cm	< 0.008	< 0.02	< 0.03	< 0.004	0.07	0.07	< 0.02	< 0.04	< 0.06	< 0.02	0.32	0.33	< 0.8	73	74
CS 42-1 85-95cm	< 0.008	< 0.02	< 0.03	0.006	0.23	0.24	< 0.02	< 0.04	< 0.06	< 0.02	1.88	1.90	< 0.8	718	719
CS 46-1 10-20cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 0.02	0.17	0.19	< 0.8	58	58
CS 46-1 50-60cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	20	20
CS 46-1 97-107cm	< 0.008	< 0.02	< 0.03	< 0.004	0.05	0.05	< 0.02	< 0.04	< 0.06	< 0.02	0.25	0.25	< 0.8	60	60
CS 48-1 12-18cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	0.04	< 0.06	0.02	0.05	0.07	< 0.8	15	15
CS 48-1 100-105cm	< 0.008	< 0.02	< 0.03	< 0.004	0.05	0.05	< 0.02	< 0.04	< 0.06	< 0.02	0.28	0.29	< 0.8	41	41
CS 50-1 15-23cm	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 0.02	0.12	0.13	< 0.8	44	44
CS 50-1 64-74cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	15	15
CS 50-1 104-114cm	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 0.02	0.08	0.08	< 0.8	24	24
CS 52-1 6-13cm	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03	< 0.02	0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	27	27
CS 52-1 49-54cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	15	15
CS 52-1 94-98cm	< 0.008	< 0.02	< 0.03	< 0.004	0.03	0.03	< 0.02	< 0.04	< 0.06	< 0.02	0.23	0.22	< 0.8	62	62
CS 54-1 10-23cm	< 0.008	0.04	0.04	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	0.13	0.09	0.22	< 0.8	15	15
CS 56-1 13-18cm	< 0.008	0.03	< 0.03	< 0.004	0.03	0.03	< 0.02	0.07	0.07	0.08	0.06	0.15	< 0.8	25	25
CS 56-1 48-53cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	17	17
CS 58-1 10-22cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	0.06	0.07	0.04	< 0.04	< 0.06	< 0.8	14	14
REPEATS															
CS 1-1 0-10cm	< 0.008	< 0.02	< 0.03	< 0.004	0.13	0.13	< 0.02	< 0.04	< 0.06	< 0.02	0.37	0.37	< 0.8	321	321
CS 1-1 0-10cm REP	< 0.008	< 0.02	< 0.03	< 0.004	0.15	0.15	< 0.02	< 0.04	< 0.06	< 0.02	0.38	0.38	< 0.8	320	321
CS 17-1B 70-75 cm	< 0.008	< 0.02	< 0.03	0.005	0.21	0.21	< 0.02	< 0.04	< 0.06	< 0.02	2.10	2.11	0.9	477	478
CS 17-1B 70-75 cm	< 0.008	< 0.02	< 0.03	0.005	0.20	0.20	< 0.02	< 0.04	< 0.06	< 0.02	1.91	1.92	1.0	471	472
CS 25-1 23-28cm	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 0.02	0.05	< 0.06	< 0.8	20	20
CS 25-1 23-28cm REP	< 0.008	< 0.02	< 0.03	< 0.004	0.02	0.02	< 0.02	< 0.04	< 0.06	< 0.02	0.06	0.07	< 0.8	20	20
CS 38-1 38-43cm	< 0.008	< 0.02	< 0.03	0.006	0.20	0.20	< 0.02	< 0.04	< 0.06	< 0.02	1.53	1.54	< 0.8	398	399
CS 38-1 38-43cm REP	< 0.008	< 0.02	< 0.03	0.006	0.21	0.21	< 0.02	< 0.04	< 0.06	< 0.02	1.59	1.61	< 0.8	397	397
CS 52-1 49-54cm	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	15	15
CS 52-1 49-54cm REP	< 0.008	< 0.02	< 0.03	< 0.004	0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	15	15
CONTROLS															
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	< 2	< 3
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	< 2	< 3
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.02	< 0.04	< 0.06	< 0.02	< 0.04	< 0.06	< 0.8	< 2	< 3
LKSD-4	< 0.008	< 0.02	< 0.03	0.070	0.43	0.50	< 0.02	0.10	0.10	0.20	1.15	1.36	2.1	589	591
LKSD-4	< 0.008	< 0.02	< 0.03	0.074	0.43	0.51	< 0.02	0.12	0.12	0.21	1.16	1.37	1.9	587	588
LKSD-4	< 0.008	< 0.02	< 0.03	0.075	0.44	0.51	< 0.02	0.12	0.12	0.23	1.22	1.45	1.9	567	569
Provisional Values															660 ± 86

	Tl ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Tl ICP-MS Aqua Regia ppm	Tl ICP-MS Sum ppm	Tm ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	Tm ICP-MS Aqua Regia ppm	Tm ICP-MS Sum ppm	U ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	U ICP-MS Aqua Regia ppm	U ICP-MS Sum ppm	V ICP-ES 1M NH4OAc 2 hr pH 5.0 ppm	V ICP-ES Aqua Regia ppm	V ICP-ES SUM ppm	W ICP-MS 1M NH4OAc 2 hr pH 5.0 ppm	W ICP-MS Aqua Regia ppm	W ICP-MS Sum ppm
D.L.	0.004	0.01	0.01	0.004	0.01	0.01	0.004	0.01	0.01	0.8	2	3	0.02	0.02	0.04
CS 1-1 0-10cm	0.008	0.09	0.09	< 0.004	0.04	0.04	0.586	3.44	4.03	< 0.8	29	29	< 0.02	0.05	< 0.04
CS 5-1 0-10cm	0.018	0.03	0.05	< 0.004	< 0.01	< 0.01	0.014	0.13	0.14	< 0.8	2	< 3	< 0.02	0.06	0.06
CS 9-1 0-10cm	0.029	0.03	0.06	< 0.004	< 0.01	< 0.01	0.005	0.04	0.05	< 0.8	< 2	< 3	< 0.02	0.06	0.06
CS 9-1 55-61cm	0.006	0.02	0.03	< 0.004	0.06	0.06	0.515	2.32	2.84	< 0.8	10	10	< 0.02	0.03	< 0.04
CS 11-1 0-10cm	0.020	0.02	0.04	< 0.004	< 0.01	< 0.01	0.006	0.07	0.08	< 0.8	< 2	< 3	< 0.02	0.03	< 0.04
CS 11-1 44-47cm	0.012	0.17	0.18	< 0.004	0.11	0.12	0.904	4.44	5.34	< 0.8	44	44	< 0.02	0.08	0.08
CS 13-1 0-5cm	0.017	0.02	0.03	< 0.004	< 0.01	< 0.01	0.016	0.06	0.07	< 0.8	< 2	< 3	< 0.02	0.31	0.31
CS 13-1 45-49cm	0.005	0.03	0.03	< 0.004	0.04	0.04	0.032	0.36	0.39	< 0.8	16	16	< 0.02	0.04	< 0.04
CS 17-1 0-5cm	0.014	0.01	0.03	< 0.004	< 0.01	< 0.01	< 0.004	0.07	0.08	< 0.8	2	< 3	< 0.02	0.02	< 0.04
CS 17-1B 70-75 cm	0.006	0.07	0.08	< 0.004	0.07	0.07	0.327	1.92	2.24	< 0.8	26	27	< 0.02	0.07	0.07
CS 19-1 0-10cm	0.020	0.03	0.05	< 0.004	< 0.01	< 0.01	0.007	0.07	0.08	< 0.8	2	< 3	< 0.02	0.03	< 0.04
CS 19-1 59-64cm	0.006	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.005	0.11	0.12	< 0.8	2	< 3	< 0.02	< 0.02	< 0.04
CS 21-1 0-10cm	0.030	0.04	0.07	< 0.004	0.01	< 0.01	0.006	0.09	0.09	< 0.8	< 2	< 3	< 0.02	0.02	< 0.04
CS 21-1 59-62cm	< 0.004	0.01	0.02	< 0.004	0.02	0.02	0.041	0.65	0.69	< 0.8	10	9	< 0.02	< 0.02	< 0.04
CS 21-1 89-94cm	0.005	0.02	0.02	< 0.004	0.03	0.03	0.078	0.91	0.99	< 0.8	21	20	< 0.02	0.02	< 0.04
CS 23-1 0-10cm	0.089	0.10	0.19	< 0.004	< 0.01	< 0.01	0.016	0.09	0.11	< 0.8	2	< 3	< 0.02	0.04	0.04
CS 25-1A 0-10cm	0.022	0.03	0.05	< 0.004	< 0.01	< 0.01	0.019	0.07	0.08	< 0.8	2	< 3	< 0.02	0.04	< 0.04
CS 25-1 23-28cm	0.015	0.02	0.03	< 0.004	< 0.01	< 0.01	0.014	0.14	0.15	< 0.8	2	< 3	< 0.02	< 0.02	< 0.04
CS 25-1 58-63cm	< 0.004	< 0.01	< 0.01	< 0.004	0.01	< 0.01	0.061	0.41	0.47	< 0.8	3	3	< 0.02	< 0.02	< 0.04
CS 27-1 0-5cm	0.012	0.02	0.03	< 0.004	< 0.01	< 0.01	0.005	0.09	0.10	< 0.8	3	< 3	< 0.02	< 0.02	< 0.04
CS 27-1 56-66cm	0.004	0.01	0.02	< 0.004	0.01	0.01	0.043	0.59	0.63	< 0.8	6	6	< 0.02	0.02	< 0.04
CS 38-1 28-33cm	0.016	0.03	0.04	< 0.004	0.03	0.03	0.024	0.22	0.24	< 0.8	13	13	< 0.02	0.03	< 0.04
CS 38-1 38-43cm	0.008	0.08	0.09	< 0.004	0.06	0.07	0.086	0.61	0.70	< 0.8	19	20	< 0.02	0.08	0.08
CS 42-1 0-8cm	0.018	0.02	0.04	< 0.004	< 0.01	< 0.01	0.006	0.06	0.07	< 0.8	2	< 3	< 0.02	0.07	0.07
CS 42-1 48-53cm	< 0.004	0.01	0.01	< 0.004	0.03	0.03	0.030	0.29	0.32	< 0.8	16	17	< 0.02	0.02	< 0.04
CS 42-1 85-95cm	0.009	0.06	0.07	< 0.004	0.05	0.05	0.335	1.47	1.80	< 0.8	55	56	< 0.02	0.10	0.10
CS 46-1 10-20cm	0.013	0.02	0.04	< 0.004	< 0.01	< 0.01	0.006	0.08	0.08	< 0.8	4	4	< 0.02	0.07	0.07
CS 46-1 50-60cm	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.006	0.08	0.09	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CS 46-1 97-107cm	< 0.004	< 0.01	< 0.01	< 0.004	0.02	0.02	0.060	0.45	0.52	< 0.8	15	16	< 0.02	0.03	< 0.04
CS 48-1 12-18cm	0.030	0.03	0.06	< 0.004	< 0.01	< 0.01	< 0.004	0.06	0.06	< 0.8	2	< 3	< 0.02	0.02	< 0.04
CS 48-1 100-105cm	0.008	< 0.01	0.02	< 0.004	0.02	0.02	0.029	0.27	0.30	< 0.8	8	8	< 0.02	0.02	< 0.04
CS 50-1 15-23cm	0.018	0.02	0.04	< 0.004	< 0.01	< 0.01	0.005	0.08	0.09	< 0.8	3	3	< 0.02	0.03	< 0.04
CS 50-1 64-74cm	0.009	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.020	0.10	0.12	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CS 50-1 104-114cm	0.007	< 0.01	< 0.01	< 0.004	0.01	< 0.01	0.052	0.33	0.39	< 0.8	7	7	< 0.02	0.03	< 0.04
CS 52-1 6-13cm	0.014	0.02	0.03	< 0.004	< 0.01	< 0.01	0.006	0.08	0.09	< 0.8	3	4	< 0.02	< 0.02	< 0.04
CS 52-1 49-54cm	0.005	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.009	0.11	0.12	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CS 52-1 94-98cm	0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.029	0.28	0.31	< 0.8	5	5	< 0.02	< 0.02	< 0.04
CS 54-1 10-23cm	0.027	0.02	0.05	< 0.004	< 0.01	< 0.01	< 0.004	0.06	0.07	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CS 56-1 13-18cm	0.016	0.03	0.04	< 0.004	< 0.01	< 0.01	0.006	0.09	0.10	< 0.8	3	4	< 0.02	0.02	< 0.04
CS 56-1 48-53cm	0.005	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.008	0.13	0.14	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CS 58-1 10-22cm	0.030	0.04	0.07	< 0.004	< 0.01	< 0.01	0.006	0.06	0.07	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
REPEATS															
CS 1-1 0-10cm	0.008	0.09	0.09	< 0.004	0.04	0.04	0.586	3.44	4.03	< 0.8	29	29	< 0.02	0.05	< 0.04
CS 1-1 0-10cm REP	0.008	0.09	0.09	< 0.004	0.04	0.04	0.529	3.75	4.28	< 0.8	31	31	< 0.02	0.05	0.05
CS 17-1B 70-75 cm	0.006	0.07	0.08	< 0.004	0.07	0.07	0.327	1.92	2.24	< 0.8	26	27	< 0.02	0.07	0.07
CS 17-1B 70-75 cm	0.006	0.07	0.07	< 0.004	0.06	0.07	0.369	1.77	2.14	< 0.8	25	26	< 0.02	0.06	0.06
CS 25-1 23-28cm	0.015	0.02	0.03	< 0.004	< 0.01	< 0.01	0.014	0.14	0.15	< 0.8	2	< 3	< 0.02	< 0.02	< 0.04
CS 25-1 23-28cm REP	0.017	0.01	0.03	< 0.004	< 0.01	< 0.01	0.014	0.15	0.17	< 0.8	2	< 3	< 0.02	0.02	< 0.04
CS 38-1 38-43cm	0.008	0.08	0.09	< 0.004	0.06	0.07	0.086	0.61	0.70	< 0.8	19	20	< 0.02	0.08	0.08
CS 38-1 38-43cm REP	0.009	0.08	0.09	< 0.004	0.06	0.07	0.091	0.64	0.73	< 0.8	20	20	< 0.02	0.09	0.08
CS 52-1 49-54cm	0.005	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.009	0.11	0.12	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CS 52-1 49-54cm REP	0.005	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	0.008	0.11	0.12	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
CONTROLS															
BLANK	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
BLANK	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
BLANK	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.004	< 0.01	< 0.01	< 0.8	< 2	< 3	< 0.02	< 0.02	< 0.04
LKSD-4	0.198	0.19	0.39	0.025	0.20	0.22	14.868	13.09	27.95	2.1	31	33	< 0.02	0.48	0.49
LKSD-4	0.197	0.19	0.39	0.025	0.20	0.22	14.994	13.43	28.42	2.2	30	33	< 0.02	0.27	0.28
LKSD-4	0.209	0.20	0.41	0.026	0.20	0.23	15.726	13.61	29.33	2.2	30	32	< 0.02	0.26	0.27

Provisional Values

	Y ICP-MS 1M NH4OAc 2 hr pH 5.0	Y ICP-MS Aqua Regia	Y ICP-MS Sum	Yb ICP-MS 1M NH4OAc 2 hr pH 5.0	Yb ICP-MS Aqua Regia	Yb ICP-MS Sum	Zn ICP-MS 1M NH4OAc 2 hr pH 5.0	Zn ICP-MS Aqua Regia	Zn ICP-MS Sum	Zr ICP-MS 1M NH4OAc 2 hr pH 5.0	Zr ICP-MS Aqua Regia	Zr ICP-MS Sum
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.008	0.02	0.03	0.004	0.01	0.01	0.4	1	1	0.04	0.1	0.1
CS 1-1 0-10cm	0.076	3.43	3.50	0.005	0.24	0.25	0.5	12	13	0.05	1.5	1.6
CS 5-1 0-10cm	0.023	0.68	0.70	< 0.004	0.05	0.05	17.8	43	61	< 0.04	0.7	0.7
CS 9-1 0-10cm	0.013	0.34	0.35	< 0.004	0.03	0.03	23.9	59	83	< 0.04	0.2	0.3
CS 9-1 55-61cm	0.156	4.97	5.12	0.007	0.36	0.37	2.8	10	13	< 0.04	2.8	2.8
CS 11-1 0-10cm	0.014	0.59	0.61	< 0.004	0.05	0.05	18.2	54	72	< 0.04	0.5	0.5
CS 11-1 44-47cm	0.281	9.66	9.94	0.011	0.69	0.70	1.3	43	44	0.06	5.6	5.6
CS 13-1 0-5cm	0.029	0.39	0.42	< 0.004	0.03	0.03	25.0	44	69	< 0.04	0.5	0.5
CS 13-1 45-49cm	0.080	3.55	3.63	< 0.004	0.28	0.28	5.7	21	27	< 0.04	2.2	2.3
CS 17-1 0-5cm	< 0.008	0.40	0.41	< 0.004	0.03	0.03	5.4	24	29	< 0.04	0.1	< 0.1
CS 17-1B 70-75 cm	0.172	5.17	5.34	0.007	0.44	0.44	< 0.4	22	22	0.06	4.0	4.1
CS 19-1 0-10cm	0.014	0.65	0.66	< 0.004	0.05	0.05	18.2	64	82	< 0.04	0.7	0.7
CS 19-1 59-64cm	< 0.008	0.36	0.37	< 0.004	0.03	0.03	2.3	12	15	< 0.04	0.1	0.1
CS 21-1 0-10cm	0.014	0.87	0.88	< 0.004	0.07	0.07	20.0	92	112	< 0.04	1.1	1.1
CS 21-1 59-62cm	0.020	1.98	2.00	< 0.004	0.14	0.14	4.5	19	24	< 0.04	0.7	0.7
CS 21-1 89-94cm	0.041	1.90	1.94	< 0.004	0.17	0.17	2.8	16	18	< 0.04	1.5	1.5
CS 23-1 0-10cm	0.021	0.47	0.49	< 0.004	0.04	0.04	22.9	118	141	< 0.04	0.4	0.4
CS 25-1A 0-10cm	0.015	0.49	0.51	< 0.004	0.04	0.04	15.0	48	63	< 0.04	0.4	0.4
CS 25-1 23-28cm	0.013	0.61	0.63	< 0.004	0.05	0.05	1.3	8	10	< 0.04	0.6	0.6
CS 25-1 58-63cm	0.028	0.79	0.82	< 0.004	0.07	0.07	< 0.4	3	3	< 0.04	0.4	0.4
CS 27-1 0-5cm	0.011	0.61	0.62	< 0.004	0.05	0.05	8.8	50	59	< 0.04	0.8	0.9
CS 27-1 56-66cm	0.019	0.99	1.01	< 0.004	0.08	0.08	3.1	15	18	< 0.04	1.0	1.0
CS 38-1 28-33cm	0.063	2.47	2.53	< 0.004	0.19	0.19	4.7	15	20	< 0.04	1.7	1.7
CS 38-1 38-43cm	0.168	4.94	5.11	0.007	0.38	0.39	3.1	20	23	0.05	2.9	2.9
CS 42-1 0-8cm	0.013	0.44	0.46	< 0.004	0.03	0.03	15.8	43	58	< 0.04	0.3	0.4
CS 42-1 48-53cm	0.076	1.97	2.04	< 0.004	0.16	0.17	< 0.4	4	5	< 0.04	1.6	1.6
CS 42-1 85-95cm	0.204	4.37	4.57	0.009	0.31	0.32	2.7	36	39	0.04	2.8	2.8
CS 46-1 10-20cm	0.013	0.62	0.63	< 0.004	0.05	0.05	10.7	43	54	< 0.04	0.8	0.8
CS 46-1 50-60cm	< 0.008	0.36	0.37	< 0.004	0.03	0.03	0.8	6	7	< 0.04	0.3	0.3
CS 46-1 97-107cm	0.056	1.37	1.43	< 0.004	0.11	0.12	< 0.4	4	5	< 0.04	1.0	1.0
CS 48-1 12-18cm	0.011	0.50	0.51	< 0.004	0.04	0.04	13.3	47	60	< 0.04	0.3	0.3
CS 48-1 100-105cm	0.041	1.23	1.27	< 0.004	0.10	0.10	< 0.4	3	4	< 0.04	0.9	1.0
CS 50-1 15-23cm	0.015	0.73	0.74	< 0.004	0.05	0.06	12.3	50	62	< 0.04	0.6	0.6
CS 50-1 64-74cm	0.009	0.32	0.33	< 0.004	0.03	0.03	0.7	5	6	< 0.04	0.2	0.2
CS 50-1 104-114cm	0.047	0.92	0.96	< 0.004	0.07	0.07	0.5	5	5	< 0.04	0.4	0.4
CS 52-1 6-13cm	0.016	0.77	0.78	< 0.004	0.06	0.06	13.2	51	64	< 0.04	0.4	0.4
CS 52-1 49-54cm	0.010	0.36	0.37	< 0.004	0.04	0.04	< 0.4	5	6	< 0.04	0.2	0.2
CS 52-1 94-98cm	0.028	0.65	0.68	< 0.004	0.06	0.06	0.4	5	6	< 0.04	0.7	0.7
CS 54-1 10-23cm	< 0.008	0.35	0.35	< 0.004	0.03	0.03	3.2	18	21	< 0.04	0.5	0.5
CS 56-1 13-18cm	0.018	0.67	0.68	< 0.004	0.06	0.06	10.1	76	86	< 0.04	0.5	0.5
CS 56-1 48-53cm	0.010	0.43	0.44	< 0.004	0.04	0.04	< 0.4	4	4	< 0.04	0.2	0.2
CS 58-1 10-22cm	0.015	0.48	0.49	< 0.004	0.04	0.04	25.0	82	108	< 0.04	0.3	0.3
REPEATS												
CS 1-1 0-10cm	0.076	3.43	3.50	0.005	0.24	0.25	0.5	12	13	0.05	1.5	1.6
CS 1-1 0-10cm REP	0.073	3.66	3.73	< 0.004	0.27	0.27	0.4	14	14	0.05	1.6	1.6
CS 17-1B 70-75 cm	0.172	5.17	5.34	0.007	0.44	0.44	< 0.4	22	22	0.06	4.0	4.1
CS 17-1B 70-75 cm	0.177	5.14	5.32	0.009	0.40	0.41	< 0.4	20	20	0.06	3.8	3.8
CS 25-1 23-28cm	0.013	0.61	0.63	< 0.004	0.05	0.05	1.3	8	10	< 0.04	0.6	0.6
CS 25-1 23-28cm REP	0.014	0.60	0.61	< 0.004	0.05	0.05	1.3	7	9	< 0.04	0.6	0.6
CS 38-1 38-43cm	0.168	4.94	5.11	0.007	0.38	0.39	3.1	20	23	0.05	2.9	2.9
CS 38-1 38-43cm REP	0.171	4.91	5.08	0.007	0.40	0.40	3.0	20	23	0.05	2.9	3.0
CS 52-1 49-54cm	0.010	0.36	0.37	< 0.004	0.04	0.04	< 0.4	5	6	< 0.04	0.2	0.2
CS 52-1 49-54cm REP	0.010	0.34	0.35	< 0.004	0.03	0.03	< 0.4	5	6	< 0.04	0.2	0.2
CONTROLS												
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.4	< 1	< 1	< 0.04	< 0.1	< 0.1
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.4	< 1	< 1	< 0.04	< 0.1	< 0.1
BLANK	< 0.008	< 0.02	< 0.03	< 0.004	< 0.01	< 0.01	< 0.4	< 1	< 1	< 0.04	< 0.1	< 0.1
LKSD-4	2.338	14.15	16.49	0.148	1.30	1.45	49.7	132	182	0.30	0.4	0.7
LKSD-4	2.416	13.99	16.40	0.158	1.32	1.47	51.7	131	183	0.32	0.4	0.7
LKSD-4	2.418	14.07	16.49	0.158	1.34	1.50	52.4	130	182	0.32	0.4	0.7
Provisional Values									174 ± 7			

Appendix 5: Hydroxylamine Leach Results

	Ag ICP-MS 0.25M NH2OH 0.25M HCl	Ag ICP-MS 1M NH2OH 25% HOAc	Ag ICP-MS Aqua Regia	Ag ICP-MS SUM	Al ICP-ES 0.25M NH2OH 0.25M HCl	Al ICP-ES 1M NH2OH 25% HOAc	Al ICP-ES Aqua Regia	Al ICP-ES SUM	As ICP-MS 0.25M NH2OH 0.25M HCl	As ICP-MS 1M NH2OH 25% HOAc	As ICP-MS Aqua Regia	As ICP-MS SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.005	0.02	0.01	0.04	5	20	20	45	0.1	0.4	0.2	0.7
CS 1-1 0-10cm	0.039	< 0.02	< 0.01	0.05	4127	1762	1763	7652	0.2	0.2	0.6	1.0
CS 5-1 0-10cm	0.050	< 0.02	< 0.01	0.07	662	225	437	1324	0.7	0.7	1.9	3.2
CS 9-1 0-10cm	0.028	< 0.02	< 0.01	< 0.04	284	93	177	553	1.6	0.8	1.3	3.7
CS 11-1 0-10cm	0.022	< 0.02	< 0.01	< 0.04	489	135	236	860	1.1	0.8	2.3	4.3
CS 13-1 0-5cm	0.043	< 0.02	< 0.01	0.05	398	125	204	727	6.4	1.6	1.2	9.1
CS 17-1 0-5cm	0.025	< 0.02	< 0.01	< 0.04	414	92	172	678	0.7	0.2	0.7	1.7
CS 19-1 0-10cm	0.024	< 0.02	< 0.01	0.04	439	184	496	1119	2.9	1.9	2.4	7.1
CS 21-1 0-10cm	0.019	< 0.02	< 0.01	< 0.04	572	174	455	1201	1.6	1.6	2.0	5.2
CS 23-1 0-10cm	0.022	< 0.02	< 0.01	< 0.04	327	97	257	681	6.2	2.3	2.3	10.8
CS 25-1A 0-10cm	0.028	< 0.02	< 0.01	< 0.04	316	121	273	710	1.3	0.8	1.2	3.4
CS 25-1 23-28cm	0.027	< 0.02	< 0.01	< 0.04	532	108	220	859	0.9	0.4	0.9	2.2
CS 27-1 0-5cm	0.013	< 0.02	< 0.01	< 0.04	549	136	229	914	0.6	0.8	1.6	3.0
CS 9-1 55-61cm	0.054	< 0.02	< 0.01	0.06	2851	568	854	4273	0.4	0.2	0.6	0.9
CS 11-1 44-47cm	0.076	< 0.02	< 0.01	0.09	8122	4466	5995	18583	0.3	0.2	0.6	1.2
CS 13-1 45-49cm	0.066	< 0.02	< 0.01	0.07	3045	814	1264	5123	1.1	0.6	0.8	2.4
CS 17-1B 70-75 cm	0.083	< 0.02	< 0.01	0.09	5256	2124	2889	10269	0.4	0.4	0.7	1.5
CS 19-1 59-64cm	0.018	< 0.02	< 0.01	< 0.04	430	82	116	628	0.2	0.2	0.6	1.1
CS 21-1 59-62cm	0.023	< 0.02	< 0.01	< 0.04	1751	422	635	2808	0.1	0.2	0.5	< 0.7
CS 25-1 58-63cm	0.055	< 0.02	< 0.01	0.06	903	145	238	1286	0.3	0.2	0.8	1.2
CS 27-1 56-66cm	0.056	< 0.02	< 0.01	0.06	1243	255	413	1912	0.3	0.2	0.5	0.8
CS 21-1 89-94cm	0.057	< 0.02	< 0.01	0.06	4166	767	794	5728	0.1	0.2	0.6	< 0.7
CS 38-1 28-33cm	0.054	< 0.02	< 0.01	0.06	2097	487	611	3195	3.0	0.9	0.8	4.6
CS 42-1 0-8cm	0.029	< 0.02	< 0.01	0.04	364	123	248	735	1.4	0.9	1.7	4.1
CS 46-1 10-20cm	0.030	< 0.02	< 0.01	0.04	619	266	538	1424	2.2	1.3	2.1	5.6
CS 48-1 12-18cm	0.029	< 0.02	< 0.01	< 0.04	349	123	303	775	1.1	1.2	1.8	4.1
CS 50-1 15-23cm	0.019	< 0.02	< 0.01	< 0.04	547	205	440	1192	1.2	1.1	1.5	3.8
CS 52-1 6-13cm	0.029	< 0.02	< 0.01	0.04	578	197	406	1181	1.3	1.2	2.0	4.5
CS 54-1 10-23cm	0.012	< 0.02	< 0.01	< 0.04	385	93	214	691	0.6	0.9	0.7	2.2
CS 56-1 13-18cm	0.030	< 0.02	< 0.01	0.04	580	189	419	1188	1.6	1.3	1.9	4.8
CS 58-1 10-22cm	0.027	< 0.02	< 0.01	0.04	403	141	284	828	1.6	1.7	2.2	5.4
CS 38-1 38-43cm	0.085	< 0.02	< 0.01	0.10	5571	2736	4845	13152	0.8	0.4	1.1	2.3
CS 42-1 48-53cm	0.085	< 0.02	< 0.01	0.10	1840	322	467	2628	0.6	0.2	0.4	1.3
CS 46-1 50-60cm	0.029	< 0.02	< 0.01	< 0.04	624	103	163	890	0.6	0.7	1.0	2.3
CS 50-1 64-74cm	0.020	< 0.02	< 0.01	< 0.04	484	80	109	673	0.3	0.5	0.4	1.2
CS 52-1 49-54cm	0.024	< 0.02	< 0.01	< 0.04	527	95	121	743	0.9	0.6	0.4	1.8
CS 56-1 48-53cm	0.028	< 0.02	< 0.01	< 0.04	592	105	139	836	0.3	0.2	0.4	0.8
CS 42-1 85-95cm	0.104	< 0.02	< 0.01	0.13	8520	2646	4334	15500	0.3	0.6	1.4	2.3
CS 46-1 97-107cm	0.078	< 0.02	< 0.01	0.09	1872	276	360	2508	0.8	0.4	0.4	1.6
CS 48-1 100-105cm	0.066	< 0.02	< 0.01	0.08	1344	179	227	1750	1.2	0.4	0.5	2.1
CS 50-1 104-114cm	0.075	< 0.02	< 0.01	0.09	821	126	169	1116	1.4	1.5	< 0.2	3.0
CS 52-1 94-98cm	0.059	< 0.02	< 0.01	0.07	996	283	304	1583	0.8	0.6	< 0.2	1.5
REPEATS												
CS 1-1 0-10cm	0.039	< 0.02	< 0.01	0.05	4127	1762	1763	7652	0.2	0.2	0.6	1.0
CS 1-1 0-10cm REP	0.042	< 0.02	< 0.01	0.04	4146	1799	1799	7745	0.2	0.2	0.6	0.9
CS 17-1B 70-75 cm	0.083	< 0.02	< 0.01	0.09	5256	2124	2889	10269	0.4	0.4	0.7	1.5
CS 17-1B 70-75 cm REP	0.076	< 0.02	< 0.01	0.09	5318	2228	2970	10516	0.3	0.2	1.0	1.6
CS 25-1 23-28cm	0.027	< 0.02	< 0.01	< 0.04	532	108	220	859	0.9	0.4	0.9	2.2
CS 25-1 23-28cm REP	0.025	< 0.02	< 0.01	< 0.04	534	104	251	889	0.9	0.6	0.6	2.1
CS 38-1 38-43cm	0.085	< 0.02	< 0.01	0.10	5571	2736	4845	13152	0.8	0.4	1.1	2.3
CS 38-1 38-43cm REP	0.080	< 0.02	< 0.01	0.09	5519	2711	4744	12974	0.8	0.7	0.4	1.9
CS 52-1 49-54cm	0.024	< 0.02	< 0.01	< 0.04	527	95	121	743	0.9	0.6	0.4	1.8
CS 52-1 49-54cm REP	0.024	< 0.02	< 0.01	< 0.04	524	89	115	727	0.8	0.2	0.4	1.6
CONTROLS												
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 5	< 20	< 20	< 45	0.1	0.2	0.5	< 0.7
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 5	< 20	< 20	< 45	0.1	0.2	< 0.2	< 0.7
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 5	< 20	< 20	< 45	0.1	0.2	< 0.2	< 0.7
LKSD-4	0.183	0.03	< 0.01	0.22	6964	2504	3185	12653	5.2	4.5	3.9	13.5
LKSD-4	0.188	0.04	< 0.01	0.23	7049	2501	3366	12916	5.4	4.7	3.7	13.8
LKSD-4	0.182	0.03	< 0.01	0.22	6860	2433	3345	12638	5.2	4.2	4.0	13.5
Provisional Values				0.2 ± 0.1				1.44 ± 0.19 %				13 ± 3

	B ICP-MS 0.25M NH2OH 0.25M HCl ppm	B ICP-MS 1M NH2OH 25% HOAc ppm	B ICP-MS Aqua Regia ppm	B ICP-MS SUM ppm	Ba ICP-MS 0.25M NH2OH 0.25M HCl ppm	Ba ICP-MS 1M NH2OH 25% HOAc ppm	Ba ICP-MS Aqua Regia ppm	Ba ICP-MS SUM ppm	Be ICP-MS 0.25M NH2OH 0.25M HCl ppm	Be ICP-MS 1M NH2OH 25% HOAc ppm	Be ICP-MS Aqua Regia ppm	Be ICP-MS SUM ppm
D.L.	0.5	2	1	4	0.2	0.8	0.4	1.4	0.005	0.02	0.01	0.04
CS 1-1 0-10cm	9.4	2	3	14	269.1	25.4	3.8	298.3	0.199	0.06	0.03	0.29
CS 5-1 0-10cm	7.2	2	< 1	10	43.3	6.2	1.5	50.9	0.037	< 0.02	< 0.01	0.05
CS 9-1 0-10cm	8.9	2	< 1	12	80.4	12.8	1.2	94.4	0.024	< 0.02	< 0.01	< 0.04
CS 11-1 0-10cm	7.3	< 2	< 1	9	56.9	9.1	1.1	67.0	0.035	< 0.02	< 0.01	0.05
CS 13-1 0-5cm	6.2	< 2	< 1	7	51.9	4.8	0.7	57.5	0.024	< 0.02	< 0.01	< 0.04
CS 17-1 0-5cm	9.4	< 2	< 1	11	30.3	3.5	0.5	34.3	0.032	< 0.02	< 0.01	0.05
CS 19-1 0-10cm	9.8	< 2	< 1	12	66.7	8.5	2.1	77.3	0.040	< 0.02	< 0.01	0.06
CS 21-1 0-10cm	11.0	3	< 1	15	94.5	9.4	1.2	105.1	0.054	< 0.02	< 0.01	0.07
CS 23-1 0-10cm	9.3	< 2	< 1	11	135.5	16.5	1.3	153.3	0.025	< 0.02	< 0.01	< 0.04
CS 25-1A 0-10cm	7.5	< 2	< 1	9	67.5	9.3	1.2	78.0	0.026	< 0.02	< 0.01	< 0.04
CS 25-1 23-28cm	8.9	< 2	< 1	11	62.3	6.4	0.8	69.5	0.040	< 0.02	< 0.01	0.05
CS 27-1 0-5cm	10.3	3	< 1	14	51.0	6.4	0.9	58.3	0.034	< 0.02	< 0.01	0.05
CS 9-1 55-61cm	7.8	< 2	< 1	10	95.4	9.1	2.0	106.5	0.196	0.02	< 0.01	0.23
CS 11-1 44-47cm	3.2	< 2	4	8	166.5	29.1	12.4	208.0	0.398	0.12	0.08	0.59
CS 13-1 45-49cm	7.7	< 2	< 1	10	81.1	9.6	3.0	93.7	0.174	0.02	0.02	0.21
CS 17-1B 70-75 cm	2.4	< 2	1	4	100.2	14.1	6.4	120.7	0.288	0.05	0.05	0.39
CS 19-1 59-64cm	3.5	< 2	< 1	< 4	30.9	3.1	< 0.4	34.4	0.031	< 0.02	< 0.01	0.04
CS 21-1 59-62cm	5.0	< 2	< 1	6	32.5	2.3	1.2	36.0	0.085	0.03	0.01	0.12
CS 25-1 58-63cm	8.6	< 2	< 1	11	67.4	7.4	0.8	75.6	0.057	< 0.02	< 0.01	0.06
CS 27-1 56-66cm	10.0	3	1	14	84.1	10.1	1.3	95.4	0.064	< 0.02	< 0.01	0.08
CS 21-1 89-94cm	5.3	< 2	< 1	7	62.0	7.5	1.3	70.7	0.210	0.04	< 0.01	0.26
CS 38-1 28-33cm	7.4	< 2	< 1	10	42.6	5.3	1.4	49.2	0.116	< 0.02	< 0.01	0.14
CS 42-1 0-8cm	8.0	< 2	< 1	10	40.3	7.2	1.2	48.7	0.026	< 0.02	< 0.01	0.04
CS 46-1 10-20cm	9.1	< 2	< 1	11	40.5	4.6	1.2	46.3	0.035	< 0.02	< 0.01	0.05
CS 48-1 12-18cm	8.7	< 2	< 1	10	36.9	4.6	1.0	42.5	0.033	< 0.02	< 0.01	0.04
CS 50-1 15-23cm	8.7	< 2	< 1	11	38.9	5.4	1.3	45.6	0.035	< 0.02	< 0.01	0.05
CS 52-1 6-13cm	11.0	2	< 1	14	31.8	7.4	1.4	40.6	0.048	< 0.02	< 0.01	0.06
CS 54-1 10-23cm	9.0	2	< 1	12	29.5	3.4	0.7	33.6	0.031	< 0.02	< 0.01	0.04
CS 56-1 13-18cm	9.5	2	< 1	12	30.8	6.4	1.4	38.6	0.032	< 0.02	< 0.01	0.04
CS 58-1 10-22cm	10.1	2	< 1	13	29.6	8.0	1.4	39.0	0.041	< 0.02	< 0.01	0.05
CS 38-1 38-43cm	4.8	< 2	3	10	90.2	14.1	8.3	112.6	0.278	0.05	0.04	0.37
CS 42-1 48-53cm	2.8	< 2	< 1	4	60.8	7.3	1.3	69.4	0.121	< 0.02	0.01	0.15
CS 46-1 50-60cm	4.1	< 2	< 1	4	28.9	2.9	0.5	32.2	0.032	< 0.02	< 0.01	0.05
CS 50-1 64-74cm	3.5	< 2	< 1	4	31.7	3.0	0.4	35.1	0.022	< 0.02	< 0.01	< 0.04
CS 52-1 49-54cm	3.7	< 2	< 1	5	43.0	5.9	0.5	49.5	0.027	< 0.02	< 0.01	< 0.04
CS 56-1 48-53cm	6.1	< 2	< 1	8	36.3	4.8	0.5	41.7	0.024	< 0.02	< 0.01	< 0.04
CS 42-1 85-95cm	2.1	< 2	5	8	63.4	10.9	3.8	78.1	0.201	0.05	0.07	0.32
CS 46-1 97-107cm	1.8	< 2	< 1	< 4	44.9	4.9	0.9	50.7	0.118	< 0.02	< 0.01	0.13
CS 48-1 100-105cm	2.5	< 2	< 1	< 4	49.7	4.9	0.6	55.3	0.078	< 0.02	< 0.01	0.10
CS 50-1 104-114cm	2.2	< 2	< 1	< 4	38.9	4.3	0.6	43.8	0.073	< 0.02	< 0.01	0.09
CS 52-1 94-98cm	3.6	< 2	< 1	5	41.7	5.5	0.9	48.0	0.051	< 0.02	< 0.01	0.07
REPEATS												
CS 1-1 0-10cm	9.4	2	3	14	269.1	25.4	3.8	298.3	0.199	0.06	0.03	0.29
CS 1-1 0-10cm REP	9.9	< 2	2	14	278.9	25.9	4.0	308.8	0.206	0.04	0.02	0.27
CS 17-1B 70-75 cm	2.4	< 2	1	4	100.2	14.1	6.4	120.7	0.288	0.05	0.05	0.39
CS 17-1B 70-75 cm REP	2.3	< 2	2	5	101.1	14.9	6.9	122.9	0.294	0.06	0.05	0.40
CS 25-1 23-28cm	8.9	< 2	< 1	11	62.3	6.4	0.8	69.5	0.040	< 0.02	< 0.01	0.05
CS 25-1 23-28cm REP	8.8	2	< 1	11	62.7	6.8	0.9	70.4	0.037	< 0.02	< 0.01	0.04
CS 38-1 38-43cm	4.8	< 2	3	10	90.2	14.1	8.3	112.6	0.278	0.05	0.04	0.37
CS 38-1 38-43cm REP	5.0	< 2	3	9	89.5	13.7	8.0	111.1	0.252	0.06	0.05	0.36
CS 52-1 49-54cm	3.7	< 2	< 1	5	43.0	5.9	0.5	49.5	0.027	< 0.02	< 0.01	< 0.04
CS 52-1 49-54cm REP	3.9	< 2	< 1	5	43.4	5.3	0.5	49.3	0.031	< 0.02	< 0.01	0.04
CONTROLS												
BLANK	< 0.5	< 2	< 1	< 4	< 0.2	< 0.8	< 0.4	< 1.4	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 0.5	< 2	< 1	< 4	< 0.2	< 0.8	< 0.4	< 1.4	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 0.5	< 2	< 1	< 4	< 0.2	< 0.8	< 0.4	< 1.4	< 0.005	< 0.02	< 0.01	< 0.04
LKSD-4	7.3	< 2	< 1	9	115.0	12.5	9.2	136.7	0.279	0.06	0.06	0.40
LKSD-4	7.6	< 2	1	9	116.8	13.0	9.6	139.3	0.295	0.07	0.08	0.44
LKSD-4	7.8	< 2	< 1	9	114.2	13.8	9.9	137.9	0.293	0.04	0.06	0.39
Provisional Values								135 ± 4				

	Ca ICP-ES 0.25M NH2OH 0.25M HCl	Ca ICP-ES 1M NH2OH 25% HOAc	Ca ICP-ES Aqua Regia	Ca ICP-ES SUM	Cd ICP-MS 0.25M NH2OH 0.25M HCl	Cd ICP-MS 1M NH2OH 25% HOAc	Cd ICP-MS Aqua Regia	Cd ICP-MS SUM	Ce ICP-MS 0.25M NH2OH 0.25M HCl	Ce ICP-MS 1M NH2OH 25% HOAc	Ce ICP-MS Aqua Regia	Ce ICP-MS SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	5	20	20	45	0.02	0.08	0.04	0.14	0.01	0.04	0.02	0.07
CS 1-1 0-10cm	47328	1703	108	49138	0.15	< 0.08	< 0.04	0.16	4.16	3.32	7.36	14.84
CS 5-1 0-10cm	16719	1638	75	18432	0.62	< 0.08	< 0.04	0.69	1.32	0.51	0.77	2.59
CS 9-1 0-10cm	21972	2630	154	24756	0.58	< 0.08	< 0.04	0.66	0.66	0.26	0.27	1.18
CS 11-1 0-10cm	25443	3054	162	28659	0.55	< 0.08	< 0.04	0.63	0.53	0.31	0.39	1.23
CS 13-1 0-5cm	14121	1003	33	15156	0.85	< 0.08	< 0.04	0.92	0.78	0.20	0.32	1.30
CS 17-1 0-5cm	27800	2393	77	30270	0.11	< 0.08	< 0.04	< 0.14	0.42	0.29	0.37	1.07
CS 19-1 0-10cm	32823	2682	70	35575	0.49	< 0.08	< 0.04	0.55	0.50	0.37	0.76	1.63
CS 21-1 0-10cm	41842	2847	83	44772	1.01	< 0.08	< 0.04	1.08	0.67	0.57	0.92	2.16
CS 23-1 0-10cm	26764	2580	78	29422	2.43	0.25	< 0.04	2.69	1.21	0.44	0.41	2.06
CS 25-1A 0-10cm	27927	2589	103	30618	0.78	< 0.08	< 0.04	0.86	0.65	0.34	0.42	1.41
CS 25-1 23-28cm	36505	2446	70	39020	0.25	< 0.08	< 0.04	0.27	0.44	0.33	0.52	1.29
CS 27-1 0-5cm	39435	3622	123	43180	0.64	< 0.08	< 0.04	0.71	0.65	0.45	0.49	1.58
CS 9-1 55-61cm	35947	1888	64	37900	0.14	< 0.08	< 0.04	0.15	10.48	6.16	5.59	22.23
CS 11-1 44-47cm	25431	753	176	26359	0.13	< 0.08	< 0.04	< 0.14	27.49	13.45	17.34	58.27
CS 13-1 45-49cm	32179	2018	83	34280	0.25	< 0.08	< 0.04	0.27	6.47	4.12	5.20	15.79
CS 17-1B 70-75 cm	25654	1159	124	26938	0.32	< 0.08	< 0.04	0.34	13.35	5.75	9.38	28.49
CS 19-1 59-64cm	21440	1677	57	23173	0.11	< 0.08	< 0.04	< 0.14	0.42	0.18	0.31	0.90
CS 21-1 59-62cm	18577	532	92	19201	0.18	< 0.08	< 0.04	0.19	3.78	1.97	8.37	14.13
CS 25-1 58-63cm	32498	2388	84	34970	0.05	< 0.08	< 0.04	< 0.14	1.00	0.51	0.80	2.31
CS 27-1 56-66cm	41886	3342	121	45348	0.25	< 0.08	< 0.04	0.28	1.26	0.88	1.33	3.47
CS 21-1 89-94cm	33527	2566	84	36177	0.45	< 0.08	< 0.04	0.49	3.15	1.91	2.53	7.59
CS 38-1 28-33cm	24848	2087	72	27007	0.22	< 0.08	< 0.04	0.25	4.89	2.45	1.81	9.14
CS 42-1 0-8cm	23877	3213	203	27292	0.74	0.11	< 0.04	0.86	0.70	0.32	0.36	1.38
CS 46-1 10-20cm	27508	1902	67	29478	0.98	< 0.08	< 0.04	1.07	0.81	0.49	0.97	2.26
CS 48-1 12-18cm	25799	2287	87	28173	0.92	< 0.08	< 0.04	1.00	0.48	0.37	0.49	1.33
CS 50-1 15-23cm	27968	2408	98	30474	1.06	0.11	< 0.04	1.18	0.76	0.48	0.86	2.09
CS 52-1 6-13cm	27860	3442	116	31417	1.09	0.15	< 0.04	1.26	0.64	0.41	0.61	1.66
CS 54-1 10-23cm	29094	2232	82	31408	0.19	< 0.08	< 0.04	0.20	0.32	0.24	0.43	0.98
CS 56-1 13-18cm	21832	2181	89	24102	1.66	0.17	< 0.04	1.84	0.77	0.39	0.57	1.73
CS 58-1 10-22cm	19036	2469	148	21653	1.15	0.18	< 0.04	1.34	0.51	0.28	0.38	1.18
CS 38-1 38-43cm	23194	1341	84	24619	0.17	< 0.08	< 0.04	0.19	13.18	6.05	9.40	28.63
CS 42-1 48-53cm	27904	2372	89	30365	0.07	< 0.08	< 0.04	< 0.14	3.25	1.59	1.84	6.68
CS 46-1 50-60cm	26365	1990	76	28432	0.12	< 0.08	< 0.04	< 0.14	0.51	0.22	0.42	1.15
CS 50-1 64-74cm	25518	1733	67	27318	0.08	< 0.08	< 0.04	< 0.14	0.47	0.19	0.32	0.97
CS 52-1 49-54cm	28139	2729	95	30963	0.11	< 0.08	< 0.04	< 0.14	0.44	0.19	0.35	0.99
CS 56-1 48-53cm	28255	2562	111	30928	0.06	< 0.08	< 0.04	< 0.14	0.50	0.25	0.36	1.11
CS 42-1 85-95cm	13452	497	39	13988	0.11	< 0.08	< 0.04	< 0.14	10.04	3.65	16.75	30.45
CS 46-1 97-107cm	25368	2136	85	27589	0.09	< 0.08	< 0.04	< 0.14	3.07	1.16	1.48	5.71
CS 48-1 100-105cm	28441	2093	73	30606	0.08	< 0.08	< 0.04	< 0.14	2.31	0.90	1.13	4.34
CS 50-1 104-114cm	23970	2104	87	26161	0.06	< 0.08	< 0.04	< 0.14	1.92	0.59	0.74	3.26
CS 52-1 94-98cm	20937	1888	76	22901	0.12	< 0.08	< 0.04	< 0.14	1.23	0.42	0.69	2.34
REPEATS												
CS 1-1 0-10cm	47328	1703	108	49138	0.15	< 0.08	< 0.04	0.16	4.16	3.32	7.36	14.84
CS 1-1 0-10cm REP	47689	1818	122	49629	0.16	< 0.08	< 0.04	0.17	4.30	3.30	7.08	14.68
CS 17-1B 70-75 cm	25654	1159	124	26938	0.32	< 0.08	< 0.04	0.34	13.35	5.75	9.38	28.49
CS 17-1B 70-75 cm REP	25494	1224	122	26840	0.31	< 0.08	< 0.04	0.32	13.50	5.98	9.68	29.15
CS 25-1 23-28cm	36505	2446	70	39020	0.25	< 0.08	< 0.04	0.27	0.44	0.33	0.52	1.29
CS 25-1 23-28cm REP	36831	2530	87	39448	0.26	< 0.08	< 0.04	0.28	0.44	0.34	0.60	1.37
CS 38-1 38-43cm	23194	1341	84	24619	0.17	< 0.08	< 0.04	0.19	13.18	6.05	9.40	28.63
CS 38-1 38-43cm REP	23384	1356	85	24824	0.17	< 0.08	< 0.04	0.18	13.06	6.15	8.92	28.13
CS 52-1 49-54cm	28139	2729	95	30963	0.11	< 0.08	< 0.04	< 0.14	0.44	0.19	0.35	0.99
CS 52-1 49-54cm REP	27946	2430	92	30468	0.10	< 0.08	< 0.04	< 0.14	0.43	0.18	0.34	0.95
CONTROLS												
BLANK	< 5	< 20	< 20	< 45	< 0.02	< 0.08	< 0.04	< 0.14	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 5	< 20	< 20	< 45	< 0.02	< 0.08	< 0.04	< 0.14	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 5	< 20	< 20	< 45	< 0.02	< 0.08	< 0.04	< 0.14	< 0.01	< 0.04	< 0.02	< 0.07
LKSD-4	7875	255	542	8673	1.95	< 0.08	< 0.04	2.00	30.93	2.59	5.21	38.73
LKSD-4	8014	259	597	8869	2.01	< 0.08	< 0.04	2.07	31.82	2.77	5.71	40.30
LKSD-4	7938	235	564	8736	1.96	< 0.08	< 0.04	2.01	30.88	2.54	5.42	38.84
Provisional Values				0.89 ± 0.05%				1.9 ± 0.2				

	Co ICP-MS 0.25M NH2OH 0.25M HCl ppm	Co ICP-MS 1M NH2OH 25% HOAc ppm	Co ICP-MS Aqua Regia ppm	Co ICP-MS SUM ppm	Cr ICP-ES 0.25M NH2OH 0.25M HCl ppm	Cr ICP-ES 1M NH2OH 25% HOAc ppm	Cr ICP-ES Aqua Regia ppm	Cr ICP-ES SUM ppm	Cs ICP-MS 0.25M NH2OH 0.25M HCl ppm	Cs ICP-MS 1M NH2OH 25% HOAc ppm	Cs ICP-MS Aqua Regia ppm	Cs ICP-MS SUM ppm
D.L.	0.05	0.2	0.1	0.4	0.3	1	1	2	0.01	0.04	0.02	0.07
CS 1-1 0-10cm	7.18	1.3	0.7	9.2	6.2	2	18	26	0.06	0.26	0.14	0.47
CS 5-1 0-10cm	1.72	< 0.2	0.1	2.1	< 0.3	< 1	3	< 2	0.02	0.05	0.19	0.26
CS 9-1 0-10cm	5.87	0.7	0.5	7.0	< 0.3	< 1	2	< 2	0.02	< 0.04	0.05	0.09
CS 11-1 0-10cm	2.98	0.4	0.2	3.6	< 0.3	< 1	2	< 2	< 0.01	< 0.04	0.06	0.08
CS 13-1 0-5cm	4.58	0.4	0.1	5.1	< 0.3	< 1	3	< 2	0.01	< 0.04	0.06	0.11
CS 17-1 0-5cm	1.46	< 0.2	< 0.1	1.7	< 0.3	< 1	4	< 2	< 0.01	< 0.04	< 0.02	< 0.07
CS 19-1 0-10cm	3.40	0.3	0.3	4.0	< 0.3	< 1	3	2	0.08	0.07	0.28	0.43
CS 21-1 0-10cm	1.56	< 0.2	0.2	1.9	< 0.3	< 1	4	3	0.03	< 0.04	0.17	0.23
CS 23-1 0-10cm	5.95	0.5	0.5	7.0	< 0.3	< 1	2	< 2	0.04	< 0.04	0.08	0.14
CS 25-1A 0-10cm	2.84	0.3	0.2	3.4	< 0.3	< 1	2	< 2	0.01	< 0.04	0.07	0.10
CS 25-1 23-28cm	1.65	< 0.2	< 0.1	1.9	< 0.3	< 1	4	2	< 0.01	< 0.04	0.03	< 0.07
CS 27-1 0-5cm	0.65	< 0.2	< 0.1	0.8	< 0.3	< 1	3	< 2	0.02	< 0.04	0.08	0.12
CS 9-1 55-61cm	4.01	0.4	0.1	4.5	0.9	< 1	7	7	0.03	< 0.04	0.21	0.27
CS 11-1 44-47cm	4.37	2.0	0.9	7.2	12.8	9	30	51	0.27	0.81	0.63	1.71
CS 13-1 45-49cm	4.96	0.5	0.2	5.7	1.1	< 1	9	9	0.05	0.07	0.24	0.36
CS 17-1B 70-75 cm	6.40	1.1	0.5	8.0	4.5	5	32	42	0.12	0.25	0.47	0.84
CS 19-1 59-64cm	1.44	< 0.2	< 0.1	1.7	< 0.3	< 1	4	< 2	< 0.01	< 0.04	< 0.02	< 0.07
CS 21-1 59-62cm	0.63	< 0.2	0.1	1.0	1.7	< 1	8	9	0.03	< 0.04	0.10	0.16
CS 25-1 58-63cm	1.93	0.2	< 0.1	2.2	< 0.3	< 1	5	4	< 0.01	< 0.04	0.02	< 0.07
CS 27-1 56-66cm	1.25	< 0.2	< 0.1	1.5	< 0.3	< 1	6	5	< 0.01	< 0.04	0.07	0.09
CS 21-1 89-94cm	1.20	0.2	0.1	1.5	1.0	< 1	12	12	0.01	< 0.04	0.08	0.13
CS 38-1 28-33cm	1.51	0.2	0.1	1.9	0.6	< 1	6	6	< 0.01	< 0.04	0.11	0.14
CS 42-1 0-8cm	1.80	0.3	0.1	2.2	< 0.3	< 1	4	3	< 0.01	< 0.04	0.06	0.09
CS 46-1 10-20cm	1.50	0.2	0.2	1.9	0.8	< 1	4	4	0.03	0.05	0.22	0.30
CS 48-1 12-18cm	0.81	< 0.2	< 0.1	1.0	< 0.3	< 1	3	< 2	0.02	< 0.04	0.12	0.16
CS 50-1 15-23cm	1.06	< 0.2	0.1	1.3	< 0.3	< 1	3	2	0.03	< 0.04	0.14	0.20
CS 52-1 6-13cm	0.75	< 0.2	< 0.1	1.0	< 0.3	< 1	4	2	0.02	< 0.04	0.11	0.15
CS 54-1 10-23cm	0.66	< 0.2	< 0.1	0.8	< 0.3	< 1	4	2	< 0.01	< 0.04	0.06	< 0.07
CS 56-1 13-18cm	0.71	< 0.2	< 0.1	0.9	< 0.3	< 1	3	2	< 0.01	< 0.04	0.11	0.14
CS 58-1 10-22cm	0.86	< 0.2	< 0.1	1.1	< 0.3	< 1	4	3	0.02	< 0.04	0.11	0.14
CS 38-1 38-43cm	2.71	0.7	0.4	3.8	4.3	5	21	30	0.07	0.19	0.58	0.83
CS 42-1 48-53cm	2.99	0.3	< 0.1	3.4	< 0.3	< 1	6	6	< 0.01	< 0.04	0.05	< 0.07
CS 46-1 50-60cm	1.46	< 0.2	< 0.1	1.7	< 0.3	< 1	3	< 2	< 0.01	< 0.04	0.03	< 0.07
CS 50-1 64-74cm	0.93	< 0.2	< 0.1	1.1	< 0.3	< 1	4	2	< 0.01	< 0.04	< 0.02	< 0.07
CS 52-1 49-54cm	1.68	0.2	< 0.1	2.0	< 0.3	< 1	3	< 2	< 0.01	< 0.04	0.03	< 0.07
CS 56-1 48-53cm	0.76	< 0.2	< 0.1	0.9	< 0.3	< 1	6	5	< 0.01	< 0.04	0.03	< 0.07
CS 42-1 85-95cm	6.57	1.9	2.0	10.5	29.7	7	24	60	0.25	0.38	0.31	0.92
CS 46-1 97-107cm	2.27	0.3	0.1	2.7	< 0.3	< 1	7	6	< 0.01	< 0.04	0.04	< 0.07
CS 48-1 100-105cm	1.77	< 0.2	< 0.1	2.1	< 0.3	< 1	6	4	< 0.01	< 0.04	0.03	< 0.07
CS 50-1 104-114cm	2.41	0.3	0.1	2.8	< 0.3	< 1	5	4	< 0.01	< 0.04	< 0.02	< 0.07
CS 52-1 94-98cm	3.63	0.5	0.1	4.3	0.5	< 1	6	5	0.01	< 0.04	0.04	0.08
REPEATS												
CS 1-1 0-10cm	7.18	1.3	0.7	9.2	6.2	2	18	26	0.06	0.26	0.14	0.47
CS 1-1 0-10cm REP	7.36	1.3	0.7	9.4	6.3	3	19	29	0.07	0.22	0.14	0.43
CS 17-1B 70-75 cm	6.40	1.1	0.5	8.0	4.5	5	32	42	0.12	0.25	0.47	0.84
CS 17-1B 70-75 cm REP	6.50	1.2	0.5	8.2	4.5	7	36	48	0.13	0.27	0.50	0.89
CS 25-1 23-28cm	1.65	< 0.2	< 0.1	1.9	< 0.3	< 1	4	2	< 0.01	< 0.04	0.03	< 0.07
CS 25-1 23-28cm REP	1.65	< 0.2	< 0.1	1.9	< 0.3	< 1	6	4	< 0.01	< 0.04	0.03	< 0.07
CS 38-1 38-43cm	2.71	0.7	0.4	3.8	4.3	5	21	30	0.07	0.19	0.58	0.83
CS 38-1 38-43cm REP	2.63	0.7	0.4	3.7	4.2	5	21	30	0.06	0.18	0.55	0.80
CS 52-1 49-54cm	1.68	0.2	< 0.1	2.0	< 0.3	< 1	3	< 2	< 0.01	< 0.04	0.03	< 0.07
CS 52-1 49-54cm REP	1.73	< 0.2	< 0.1	2.0	< 0.3	< 1	4	3	< 0.01	< 0.04	0.03	< 0.07
CONTROLS												
BLANK	< 0.05	< 0.2	< 0.1	< 0.4	< 0.3	< 1	< 1	< 2	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.05	< 0.2	< 0.1	< 0.4	< 0.3	< 1	< 1	< 2	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.05	< 0.2	< 0.1	< 0.4	< 0.3	< 1	< 1	< 2	< 0.01	< 0.04	< 0.02	< 0.07
LKSD-4	4.73	1.7	2.1	8.6	4.4	6	9	19	0.42	0.32	0.35	1.08
LKSD-4	4.82	1.7	2.2	8.8	4.5	6	9	19	0.43	0.34	0.36	1.13
LKSD-4	4.72	1.8	2.2	8.7	4.3	5	10	20	0.40	0.33	0.37	1.10
Provisional Values				10 ± 1				21 ± 2				

	Cu ICP-MS 0.25M NH2OH 0.25M HCl ppm	Cu ICP-MS 1M NH2OH 25% HOAc ppm	Cu ICP-MS Aqua Regia ppm	Cu ICP-MS SUM ppm	Dy ICP-MS 0.25M NH2OH 0.25M HCl ppm	Dy ICP-MS 1M NH2OH 25% HOAc ppm	Dy ICP-MS Aqua Regia ppm	Dy ICP-MS SUM ppm	Er ICP-MS 0.25M NH2OH 0.25M HCl ppm	Er ICP-MS 1M NH2OH 25% HOAc ppm	Er ICP-MS Aqua Regia ppm	Er ICP-MS SUM ppm
D.L.	0.1	0.4	0.2	0.7	0.005	0.02	0.01	0.04	0.005	0.02	0.01	0.04
CS 1-1 0-10cm	2.0	6.7	11.0	19.7	0.276	0.17	0.24	0.69	0.153	0.08	0.10	0.33
CS 5-1 0-10cm	1.9	1.4	5.7	8.9	0.085	0.03	0.03	0.15	0.042	< 0.02	0.01	0.07
CS 9-1 0-10cm	1.4	1.4	5.2	8.0	0.044	< 0.02	0.02	0.07	0.023	< 0.02	< 0.01	0.04
CS 11-1 0-10cm	0.8	1.0	4.3	6.1	0.051	0.02	0.03	0.10	0.028	< 0.02	0.01	0.05
CS 13-1 0-5cm	2.3	2.1	2.4	6.8	0.048	< 0.02	0.01	0.07	0.027	< 0.02	< 0.01	0.04
CS 17-1 0-5cm	0.5	1.2	3.4	5.1	0.028	< 0.02	0.03	0.07	0.016	< 0.02	0.01	< 0.04
CS 19-1 0-10cm	0.6	1.7	5.3	7.6	0.055	0.03	0.04	0.13	0.029	< 0.02	0.02	0.06
CS 21-1 0-10cm	0.5	1.5	5.1	7.1	0.057	0.04	0.07	0.16	0.032	0.02	0.03	0.09
CS 23-1 0-10cm	1.3	2.1	6.0	9.4	0.055	< 0.02	0.02	0.09	0.031	< 0.02	< 0.01	0.05
CS 25-1A 0-10cm	1.1	1.7	5.0	7.8	0.048	0.02	0.03	0.09	0.025	< 0.02	0.01	0.05
CS 25-1 23-28cm	0.5	1.4	3.9	5.8	0.045	0.03	0.05	0.12	0.028	< 0.02	0.02	0.06
CS 27-1 0-5cm	0.7	1.2	5.7	7.5	0.051	0.03	0.04	0.12	0.031	< 0.02	0.02	0.06
CS 9-1 55-61cm	1.8	5.1	9.8	16.7	0.478	0.20	0.29	0.97	0.260	0.09	0.13	0.48
CS 11-1 44-47cm	6.5	17.2	14.9	38.5	1.043	0.38	0.50	1.93	0.550	0.17	0.21	0.93
CS 13-1 45-49cm	2.0	5.4	9.8	17.1	0.289	0.13	0.22	0.64	0.165	0.06	0.10	0.33
CS 17-1B 70-75 cm	2.7	6.6	8.8	18.0	0.538	0.18	0.31	1.02	0.293	0.08	0.13	0.51
CS 19-1 59-64cm	0.3	0.5	2.8	3.6	0.026	< 0.02	0.02	0.06	0.015	< 0.02	< 0.01	< 0.04
CS 21-1 59-62cm	0.8	1.2	2.9	4.9	0.176	0.06	0.22	0.46	0.088	0.03	0.07	0.19
CS 25-1 58-63cm	1.2	3.0	6.9	11.1	0.081	0.03	0.05	0.16	0.047	< 0.02	0.03	0.09
CS 27-1 56-66cm	0.5	1.2	6.4	8.1	0.087	0.05	0.10	0.23	0.049	0.02	0.05	0.12
CS 21-1 89-94cm	1.5	3.4	9.9	14.8	0.146	0.07	0.15	0.36	0.086	0.03	0.07	0.19
CS 38-1 28-33cm	2.6	4.1	7.9	14.6	0.251	0.10	0.09	0.45	0.136	0.05	0.04	0.23
CS 42-1 0-8cm	1.5	1.6	4.4	7.5	0.048	< 0.02	0.02	0.09	0.027	< 0.02	< 0.01	0.05
CS 46-1 10-20cm	1.1	2.0	4.6	7.7	0.061	0.03	0.04	0.14	0.032	< 0.02	0.02	0.06
CS 48-1 12-18cm	1.3	1.8	6.2	9.3	0.046	0.03	0.03	0.10	0.025	< 0.02	0.02	0.05
CS 50-1 15-23cm	1.0	1.6	5.7	8.4	0.059	0.03	0.04	0.13	0.032	< 0.02	0.02	0.07
CS 52-1 6-13cm	1.5	1.6	5.8	9.0	0.062	0.03	0.04	0.14	0.036	< 0.02	0.02	0.07
CS 54-1 10-23cm	0.3	0.6	2.2	3.0	0.026	< 0.02	0.03	0.07	0.014	< 0.02	0.02	0.04
CS 56-1 13-18cm	2.3	2.3	5.0	9.5	0.067	0.03	0.03	0.13	0.038	< 0.02	0.02	0.07
CS 58-1 10-22cm	2.2	4.7	10.8	17.7	0.049	0.03	0.03	0.10	0.028	< 0.02	0.01	0.05
CS 38-1 38-43cm	4.9	10.4	11.2	26.4	0.617	0.22	0.28	1.12	0.318	0.10	0.12	0.54
CS 42-1 48-53cm	3.0	5.4	12.6	21.0	0.205	0.07	0.12	0.40	0.115	0.04	0.06	0.21
CS 46-1 50-60cm	0.6	1.1	4.1	5.8	0.036	< 0.02	0.03	0.07	0.020	< 0.02	0.01	0.04
CS 50-1 64-74cm	0.4	0.6	3.7	4.7	0.031	< 0.02	0.02	0.06	0.019	< 0.02	0.01	< 0.04
CS 52-1 49-54cm	0.5	0.7	4.2	5.4	0.035	< 0.02	0.03	0.07	0.020	< 0.02	0.01	0.04
CS 56-1 48-53cm	0.6	4.4	9.1	14.1	0.039	< 0.02	0.03	0.08	0.023	< 0.02	0.01	0.05
CS 42-1 85-95cm	10.0	14.2	9.2	33.5	0.636	0.13	0.27	1.03	0.263	0.05	0.06	0.37
CS 46-1 97-107cm	2.1	3.4	11.5	17.0	0.173	0.05	0.08	0.31	0.096	0.02	0.04	0.16
CS 48-1 100-105cm	1.5	2.6	7.0	11.1	0.139	0.04	0.08	0.26	0.077	< 0.02	0.04	0.13
CS 50-1 104-114cm	2.1	3.0	8.9	13.9	0.107	0.02	0.05	0.18	0.062	< 0.02	0.02	0.10
CS 52-1 94-98cm	1.3	1.8	5.1	8.2	0.077	< 0.02	0.03	0.13	0.043	< 0.02	0.02	0.07
REPEATS												
CS 1-1 0-10cm	2.0	6.7	11.0	19.7	0.276	0.17	0.24	0.69	0.153	0.08	0.10	0.33
CS 1-1 0-10cm REP	2.1	6.9	10.4	19.4	0.285	0.18	0.25	0.71	0.155	0.08	0.10	0.33
CS 17-1B 70-75 cm	2.7	6.6	8.8	18.0	0.538	0.18	0.31	1.02	0.293	0.08	0.13	0.51
CS 17-1B 70-75 cm REP	2.6	7.0	9.1	18.6	0.539	0.17	0.32	1.03	0.296	0.09	0.14	0.52
CS 25-1 23-28cm	0.5	1.4	3.9	5.8	0.045	0.03	0.05	0.12	0.028	< 0.02	0.02	0.06
CS 25-1 23-28cm REP	0.5	1.6	4.1	6.2	0.044	0.02	0.05	0.12	0.026	< 0.02	0.02	0.06
CS 38-1 38-43cm	4.9	10.4	11.2	26.4	0.617	0.22	0.28	1.12	0.318	0.10	0.12	0.54
CS 38-1 38-43cm REP	4.7	10.1	10.5	25.3	0.605	0.23	0.28	1.11	0.314	0.11	0.12	0.53
CS 52-1 49-54cm	0.5	0.7	4.2	5.4	0.035	< 0.02	0.03	0.07	0.020	< 0.02	0.01	0.04
CS 52-1 49-54cm REP	0.5	0.7	4.2	5.4	0.037	< 0.02	0.03	0.08	0.021	< 0.02	0.01	0.04
CONTROLS												
BLANK	0.4	< 0.4	0.2	< 0.7	< 0.005	< 0.02	< 0.01	< 0.04	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 0.1	< 0.4	< 0.2	< 0.7	< 0.005	< 0.02	< 0.01	< 0.04	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 0.1	< 0.4	< 0.2	< 0.7	< 0.005	< 0.02	< 0.01	< 0.04	< 0.005	< 0.02	< 0.01	< 0.04
LKSD-4	10.4	6.3	11.7	28.4	2.412	0.18	0.27	2.86	1.381	0.10	0.15	1.63
LKSD-4	11.0	6.0	12.6	29.5	2.413	0.17	0.29	2.87	1.394	0.10	0.16	1.65
LKSD-4	10.8	5.6	11.7	28.1	2.406	0.17	0.29	2.86	1.398	0.09	0.15	1.64
Provisional Values				29 ± 3								

	Eu ICP-MS 0.25M NH2OH 0.25M HCl	Eu ICP-MS 1M NH2OH 25% HOAc	Eu ICP-MS Aqua Regia	Eu ICP-MS SUM	Fe ICP-ES 0.25M NH2OH 0.25M HCl	Fe ICP-ES 1M NH2OH 25% HOAc	Fe ICP-ES Aqua Regia	Fe ICP-ES SUM	Ga ICP-MS 0.25M NH2OH 0.25M HCl	Ga ICP-MS 1M NH2OH 25% HOAc	Ga ICP-MS Aqua Regia	Ga ICP-MS SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.005	0.02	0.01	0.04	1	5	5	11	0.01	0.04	0.02	0.07
CS 1-1 0-10cm	0.072	0.07	0.10	0.24	3385	2835	1469	7690	0.20	0.33	1.34	1.87
CS 5-1 0-10cm	0.021	< 0.02	0.01	0.04	1272	278	235	1785	0.09	< 0.04	0.28	0.39
CS 9-1 0-10cm	0.012	< 0.02	< 0.01	< 0.04	2171	432	180	2782	0.06	< 0.04	0.09	0.16
CS 11-1 0-10cm	0.013	< 0.02	< 0.01	< 0.04	2251	523	188	2963	0.05	< 0.04	0.15	0.21
CS 13-1 0-5cm	0.013	< 0.02	< 0.01	< 0.04	3593	579	165	4337	0.06	< 0.04	0.11	0.17
CS 17-1 0-5cm	0.007	< 0.02	< 0.01	< 0.04	1557	342	121	2019	0.02	< 0.04	0.10	0.13
CS 19-1 0-10cm	0.013	< 0.02	0.02	0.04	4922	979	449	6350	0.05	< 0.04	0.24	0.31
CS 21-1 0-10cm	0.013	< 0.02	0.02	0.05	3321	574	357	4252	0.04	< 0.04	0.23	0.30
CS 23-1 0-10cm	0.014	< 0.02	< 0.01	< 0.04	5959	999	322	7279	0.08	< 0.04	0.12	0.22
CS 25-1A 0-10cm	0.011	< 0.02	< 0.01	< 0.04	1857	376	215	2448	0.05	< 0.04	0.13	0.19
CS 25-1 23-28cm	0.009	< 0.02	0.02	< 0.04	5508	966	267	6740	0.03	< 0.04	0.11	0.14
CS 27-1 0-5cm	0.012	< 0.02	0.01	< 0.04	754	130	101	984	0.03	< 0.04	0.16	0.20
CS 9-1 55-61cm	0.123	0.08	0.13	0.33	5591	1625	483	7699	0.20	0.09	0.68	0.97
CS 11-1 44-47cm	0.283	0.19	0.22	0.69	4666	6293	3763	14721	1.01	1.20	3.56	5.77
CS 13-1 45-49cm	0.070	0.05	0.09	0.21	4427	1539	639	6605	0.23	0.13	0.96	1.33
CS 17-1B 70-75 cm	0.138	0.07	0.13	0.33	5122	3263	1620	10005	0.61	0.40	1.99	3.00
CS 19-1 59-64cm	0.007	< 0.02	< 0.01	< 0.04	1550	331	85	1967	0.04	< 0.04	0.07	0.11
CS 21-1 59-62cm	0.043	0.02	0.08	0.15	736	459	493	1688	0.15	0.08	0.53	0.76
CS 25-1 58-63cm	0.018	< 0.02	0.02	0.05	7633	1462	271	9367	0.08	< 0.04	0.16	0.24
CS 27-1 56-66cm	0.020	< 0.02	0.04	0.07	1314	313	172	1798	0.05	< 0.04	0.30	0.36
CS 21-1 89-94cm	0.037	0.03	0.06	0.12	1426	490	276	2192	0.14	0.08	0.66	0.88
CS 38-1 28-33cm	0.065	0.04	0.04	0.15	3035	836	301	4172	0.14	0.06	0.43	0.63
CS 42-1 0-8cm	0.011	< 0.02	< 0.01	< 0.04	1768	389	171	2327	0.05	< 0.04	0.13	0.19
CS 46-1 10-20cm	0.014	< 0.02	0.02	0.04	3131	690	377	4197	0.06	< 0.04	0.28	0.37
CS 48-1 12-18cm	0.009	< 0.02	0.01	< 0.04	1732	347	208	2287	0.03	< 0.04	0.14	0.18
CS 50-1 15-23cm	0.013	< 0.02	0.01	0.04	1885	400	293	2577	0.05	< 0.04	0.25	0.33
CS 52-1 6-13cm	0.013	< 0.02	0.01	0.04	1599	342	231	2172	0.05	< 0.04	0.22	0.29
CS 54-1 10-23cm	0.006	< 0.02	0.01	< 0.04	993	168	93	1254	0.02	< 0.04	0.12	0.14
CS 56-1 13-18cm	0.015	< 0.02	0.01	< 0.04	1154	250	195	1599	0.05	< 0.04	0.22	0.29
CS 58-1 10-22cm	0.011	< 0.02	< 0.01	< 0.04	1317	315	167	1799	0.04	< 0.04	0.15	0.21
CS 38-1 38-43cm	0.176	0.10	0.13	0.41	3708	2621	2044	8374	0.58	0.62	2.63	3.83
CS 42-1 48-53cm	0.049	0.03	0.05	0.13	4347	980	238	5566	0.12	< 0.04	0.34	0.47
CS 46-1 50-60cm	0.008	< 0.02	< 0.01	< 0.04	3617	664	151	4432	0.06	< 0.04	0.12	0.19
CS 50-1 64-74cm	0.007	< 0.02	< 0.01	< 0.04	2877	511	133	3521	0.04	< 0.04	0.08	0.12
CS 52-1 49-54cm	0.008	< 0.02	< 0.01	< 0.04	3445	586	122	4153	0.04	< 0.04	0.09	0.14
CS 56-1 48-53cm	0.009	< 0.02	0.01	< 0.04	1668	261	82	2011	0.03	< 0.04	0.11	0.15
CS 42-1 85-95cm	0.165	0.06	0.15	0.38	10381	5784	5159	21324	2.07	1.11	2.92	6.10
CS 46-1 97-107cm	0.043	< 0.02	0.04	0.10	4665	1111	242	6018	0.15	< 0.04	0.31	0.48
CS 48-1 100-105cm	0.036	< 0.02	0.03	0.08	7927	1405	279	9610	0.12	< 0.04	0.20	0.33
CS 50-1 104-114cm	0.027	< 0.02	0.02	0.05	8175	1629	239	10043	0.09	< 0.04	0.11	0.21
CS 52-1 94-98cm	0.020	< 0.02	0.01	0.04	6278	1371	246	7894	0.12	< 0.04	0.21	0.34
REPEATS												
CS 1-1 0-10cm	0.072	0.07	0.10	0.24	3385	2835	1469	7690	0.20	0.33	1.34	1.87
CS 1-1 0-10cm REP	0.079	0.07	0.10	0.25	3440	2899	1460	7798	0.21	0.32	1.37	1.90
CS 17-1B 70-75 cm	0.138	0.07	0.13	0.33	5122	3263	1620	10005	0.61	0.40	1.99	3.00
CS 17-1B 70-75 cm REP	0.141	0.08	0.13	0.35	5064	3406	1634	10104	0.61	0.46	2.15	3.22
CS 25-1 23-28cm	0.009	< 0.02	0.02	< 0.04	5508	966	267	6740	0.03	< 0.04	0.11	0.14
CS 25-1 23-28cm REP	0.009	< 0.02	0.02	< 0.04	5459	1028	301	6788	0.03	< 0.04	0.12	0.15
CS 38-1 38-43cm	0.176	0.10	0.13	0.41	3708	2621	2044	8374	0.58	0.62	2.63	3.83
CS 38-1 38-43cm REP	0.167	0.11	0.12	0.39	3673	2582	1979	8234	0.55	0.62	2.52	3.68
CS 52-1 49-54cm	0.008	< 0.02	< 0.01	< 0.04	3445	586	122	4153	0.04	< 0.04	0.09	0.14
CS 52-1 49-54cm REP	0.009	< 0.02	< 0.01	< 0.04	3372	526	121	4020	0.04	< 0.04	0.08	0.13
CONTROLS												
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 1	< 5	< 5	< 11	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 1	< 5	< 5	< 11	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 1	< 5	< 5	< 11	< 0.01	< 0.04	< 0.02	< 0.07
LKSD-4	0.738	0.06	0.08	0.88	7371	8901	7522	23794	1.41	0.93	1.38	3.72
LKSD-4	0.738	0.07	0.09	0.89	7425	8894	7710	24029	1.42	0.91	1.44	3.77
LKSD-4	0.727	0.06	0.08	0.87	7228	8670	7850	23748	1.37	0.87	1.41	3.65
Provisional Values								2.7 ± 0.3 %				

	Gd ICP-MS 0.25M NH2OH 0.25M HCl ppm	Gd ICP-MS 1M NH2OH 25% HOAc ppm	Gd ICP-MS Aqua Regia ppm	Gd ICP-MS SUM ppm	Hf ICP-MS 0.25M NH2OH 0.25M HCl ppm	Hf ICP-MS 1M NH2OH 25% HOAc ppm	Hf ICP-MS Aqua Regia ppm	Hf ICP-MS SUM ppm	Ho ICP-MS 0.25M NH2OH 0.25M HCl ppm	Ho ICP-MS 1M NH2OH 25% HOAc ppm	Ho ICP-MS Aqua Regia ppm	Ho ICP-MS SUM ppm
D.L.	0.005	0.02	0.01	0.04	0.01	0.04	0.02	0.07	0.005	0.02	0.01	0.04
CS 1-1 0-10cm	0.320	0.25	0.46	1.04	0.01	< 0.04	0.06	< 0.07	0.057	0.03	0.04	0.13
CS 5-1 0-10cm	0.096	0.04	0.05	0.19	0.12	< 0.04	0.62	0.69	0.017	< 0.02	< 0.01	< 0.04
CS 9-1 0-10cm	0.051	0.02	0.02	0.09	0.11	< 0.04	0.19	0.24	0.009	< 0.02	< 0.01	< 0.04
CS 11-1 0-10cm	0.058	0.03	0.04	0.13	0.04	< 0.04	0.08	< 0.07	0.010	< 0.02	< 0.01	< 0.04
CS 13-1 0-5cm	0.058	< 0.02	0.03	0.10	0.02	< 0.04	0.07	0.08	0.010	< 0.02	< 0.01	< 0.04
CS 17-1 0-5cm	0.031	0.02	0.04	0.09	0.02	< 0.04	0.05	0.09	0.006	< 0.02	< 0.01	< 0.04
CS 19-1 0-10cm	0.058	0.05	0.07	0.17	0.02	0.07	0.06	0.16	0.011	< 0.02	< 0.01	< 0.04
CS 21-1 0-10cm	0.060	0.06	0.10	0.22	0.03	0.18	0.09	0.29	0.012	< 0.02	0.01	< 0.04
CS 23-1 0-10cm	0.059	0.03	0.02	0.11	0.02	0.08	0.04	0.14	0.011	< 0.02	< 0.01	< 0.04
CS 25-1A 0-10cm	0.052	0.03	0.03	0.12	0.01	< 0.04	0.04	< 0.07	0.010	< 0.02	< 0.01	< 0.04
CS 25-1 23-28cm	0.046	0.03	0.06	0.14	< 0.01	< 0.04	0.04	< 0.07	0.010	< 0.02	< 0.01	< 0.04
CS 27-1 0-5cm	0.057	0.04	0.05	0.14	0.14	< 0.04	0.68	0.77	0.011	< 0.02	< 0.01	< 0.04
CS 9-1 55-61cm	0.580	0.32	0.44	1.34	0.04	< 0.04	0.12	0.11	0.096	0.04	0.05	0.18
CS 11-1 44-47cm	1.340	0.67	0.96	2.97	0.03	< 0.04	0.11	0.14	0.203	0.07	0.08	0.35
CS 13-1 45-49cm	0.350	0.23	0.34	0.92	0.02	< 0.04	0.10	0.13	0.060	0.02	0.04	0.12
CS 17-1B 70-75 cm	0.647	0.28	0.52	1.45	0.02	0.06	0.08	0.16	0.106	0.03	0.05	0.19
CS 19-1 59-64cm	0.030	< 0.02	0.03	0.07	< 0.01	0.10	0.03	0.13	0.006	< 0.02	< 0.01	< 0.04
CS 21-1 59-62cm	0.214	0.10	0.48	0.79	< 0.01	0.14	0.04	0.18	0.033	< 0.02	0.03	0.08
CS 25-1 58-63cm	0.079	0.04	0.07	0.19	< 0.01	< 0.04	0.03	< 0.07	0.016	< 0.02	< 0.01	< 0.04
CS 27-1 56-66cm	0.092	0.06	0.12	0.27	0.04	< 0.04	0.20	0.16	0.019	< 0.02	0.02	0.04
CS 21-1 89-94cm	0.168	0.09	0.20	0.46	< 0.01	0.11	0.07	0.19	0.031	< 0.02	0.03	0.07
CS 38-1 28-33cm	0.309	0.17	0.14	0.62	0.08	< 0.04	0.11	0.11	0.051	< 0.02	0.02	0.08
CS 42-1 0-8cm	0.057	0.03	0.03	0.11	0.05	< 0.04	0.08	< 0.07	0.009	< 0.02	< 0.01	< 0.04
CS 46-1 10-20cm	0.070	0.05	0.07	0.18	0.04	< 0.04	0.06	0.11	0.012	< 0.02	< 0.01	< 0.04
CS 48-1 12-18cm	0.051	0.04	0.04	0.14	0.03	0.09	0.05	0.16	0.009	< 0.02	< 0.01	< 0.04
CS 50-1 15-23cm	0.070	0.05	0.06	0.18	0.02	0.14	0.05	0.21	0.012	< 0.02	< 0.01	< 0.04
CS 52-1 6-13cm	0.073	0.05	0.05	0.18	0.01	< 0.04	0.03	< 0.07	0.013	< 0.02	< 0.01	< 0.04
CS 54-1 10-23cm	0.028	0.02	0.05	0.10	0.12	< 0.04	0.62	0.75	0.005	< 0.02	< 0.01	< 0.04
CS 56-1 13-18cm	0.072	0.04	0.05	0.16	0.08	< 0.04	0.16	0.22	0.013	< 0.02	< 0.01	< 0.04
CS 58-1 10-22cm	0.058	0.03	0.03	0.12	0.04	< 0.04	0.07	0.08	0.010	< 0.02	< 0.01	< 0.04
CS 38-1 38-43cm	0.785	0.36	0.50	1.64	0.04	< 0.04	0.12	0.10	0.118	0.04	0.05	0.20
CS 42-1 48-53cm	0.251	0.12	0.18	0.55	0.02	< 0.04	0.08	0.07	0.043	< 0.02	0.02	0.08
CS 46-1 50-60cm	0.041	< 0.02	0.04	0.09	0.01	< 0.04	0.04	0.09	0.007	< 0.02	< 0.01	< 0.04
CS 50-1 64-74cm	0.038	< 0.02	0.03	0.08	< 0.01	< 0.04	0.03	< 0.07	0.007	< 0.02	< 0.01	< 0.04
CS 52-1 49-54cm	0.041	< 0.02	0.04	0.09	< 0.01	< 0.04	< 0.02	< 0.07	0.007	< 0.02	< 0.01	< 0.04
CS 56-1 48-53cm	0.043	0.02	0.04	0.10	0.03	< 0.04	0.09	0.08	0.008	< 0.02	< 0.01	< 0.04
CS 42-1 85-95cm	0.847	0.26	0.82	1.93	0.01	< 0.04	0.06	0.07	0.105	< 0.02	0.03	0.16
CS 46-1 97-107cm	0.208	0.07	0.12	0.40	0.01	0.06	0.06	0.13	0.034	< 0.02	0.02	0.06
CS 48-1 100-105cm	0.175	0.06	0.11	0.34	0.01	0.17	0.07	0.25	0.028	< 0.02	0.01	0.05
CS 50-1 104-114cm	0.128	0.04	0.07	0.23	< 0.01	< 0.04	0.03	< 0.07	0.022	< 0.02	< 0.01	0.04
CS 52-1 94-98cm	0.091	0.03	0.05	0.17	< 0.01	< 0.04	0.03	< 0.07	0.015	< 0.02	< 0.01	< 0.04
REPEATS												
CS 1-1 0-10cm	0.320	0.25	0.46	1.04	0.01	< 0.04	0.06	< 0.07	0.057	0.03	0.04	0.13
CS 1-1 0-10cm REP	0.337	0.27	0.45	1.06	0.02	0.06	0.04	0.12	0.057	0.03	0.04	0.12
CS 17-1B 70-75 cm	0.647	0.28	0.52	1.45	0.02	0.06	0.08	0.16	0.106	0.03	0.05	0.19
CS 17-1B 70-75 cm REP	0.665	0.29	0.53	1.49	0.01	< 0.04	0.07	0.12	0.107	0.03	0.05	0.19
CS 25-1 23-28cm	0.046	0.03	0.06	0.14	< 0.01	< 0.04	0.04	< 0.07	0.010	< 0.02	< 0.01	< 0.04
CS 25-1 23-28cm REP	0.046	0.04	0.07	0.15	0.02	0.13	0.05	0.19	0.009	< 0.02	< 0.01	< 0.04
CS 38-1 38-43cm	0.785	0.36	0.50	1.64	0.04	< 0.04	0.12	0.10	0.118	0.04	0.05	0.20
CS 38-1 38-43cm REP	0.786	0.37	0.49	1.64	0.02	0.11	0.08	0.21	0.119	0.04	0.04	0.20
CS 52-1 49-54cm	0.041	< 0.02	0.04	0.09	< 0.01	< 0.04	< 0.02	< 0.07	0.007	< 0.02	< 0.01	< 0.04
CS 52-1 49-54cm REP	0.037	< 0.02	0.04	0.09	0.02	< 0.04	0.05	< 0.07	0.007	< 0.02	< 0.01	< 0.04
CONTROLS												
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.01	< 0.04	< 0.02	< 0.07	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.01	0.06	< 0.02	< 0.07	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.01	< 0.04	< 0.02	< 0.07	< 0.005	< 0.02	< 0.01	< 0.04
LKSD-4	3.001	0.24	0.34	3.57	0.03	< 0.04	< 0.02	< 0.07	0.486	0.04	0.05	0.57
LKSD-4	3.118	0.24	0.36	3.72	0.03	0.06	< 0.02	0.10	0.496	0.03	0.06	0.59
LKSD-4	3.026	0.24	0.35	3.62	0.05	0.04	< 0.02	0.11	0.488	0.04	0.05	0.58

Provisional Values

	K	K	K	K	La	La	La	La	Li	Li	Li	Li
	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	13	50	50	113	0.01	0.04	0.02	0.07	0.02	0.08	0.04	0.14
CS 1-1 0-10cm	455	619	305	1379	2.51	1.41	3.18	7.10	2.12	3.49	1.86	7.48
CS 5-1 0-10cm	454	74	60	588	0.78	0.23	0.36	1.36	0.08	0.10	0.17	0.35
CS 9-1 0-10cm	1123	150	< 50	1307	0.42	0.13	0.12	0.67	0.05	< 0.08	0.07	0.17
CS 11-1 0-10cm	289	< 50	< 50	368	0.42	0.18	0.18	0.77	0.04	< 0.08	0.07	0.16
CS 13-1 0-5cm	776	84	< 50	898	0.50	0.10	0.15	0.75	0.10	0.11	0.10	0.30
CS 17-1 0-5cm	208	< 50	< 50	255	0.31	0.16	0.15	0.62	0.03	< 0.08	0.06	< 0.14
CS 19-1 0-10cm	932	113	63	1108	0.42	0.23	0.36	1.01	0.08	0.16	0.18	0.43
CS 21-1 0-10cm	713	73	50	836	0.44	0.27	0.37	1.08	0.09	0.16	0.21	0.46
CS 23-1 0-10cm	1498	164	< 50	1701	0.50	0.13	0.17	0.80	0.07	< 0.08	0.09	0.22
CS 25-1A 0-10cm	741	88	< 50	868	0.40	0.15	0.18	0.73	0.08	0.09	0.11	0.28
CS 25-1 23-28cm	195	< 50	< 50	242	0.28	0.16	0.20	0.64	0.03	< 0.08	0.07	0.15
CS 27-1 0-5cm	444	56	< 50	533	0.38	0.19	0.18	0.75	0.05	< 0.08	0.05	< 0.14
CS 9-1 55-61cm	88	70	96	254	6.49	2.79	1.89	11.17	0.21	0.43	0.48	1.12
CS 11-1 44-47cm	856	1397	736	2989	16.60	5.82	7.56	29.97	3.93	6.29	4.34	14.56
CS 13-1 45-49cm	199	130	149	477	4.06	1.89	2.07	8.02	0.42	0.78	0.77	1.97
CS 17-1B 70-75 cm	363	472	341	1176	7.02	2.35	3.97	13.33	1.48	2.52	1.88	5.87
CS 19-1 59-64cm	81	< 50	< 50	< 113	0.28	0.09	0.13	0.50	< 0.02	< 0.08	< 0.04	< 0.14
CS 21-1 59-62cm	62	< 50	78	186	1.66	0.77	3.78	6.20	0.68	0.73	0.64	2.05
CS 25-1 58-63cm	38	< 50	< 50	< 113	0.66	0.25	0.31	1.22	0.08	0.10	0.11	0.30
CS 27-1 56-66cm	51	< 50	< 50	< 113	0.80	0.42	0.47	1.69	0.06	0.12	0.23	0.41
CS 21-1 89-94cm	73	50	71	194	1.60	0.73	0.79	3.12	0.33	0.60	0.51	1.44
CS 38-1 28-33cm	310	69	72	451	2.96	1.06	0.67	4.69	0.17	0.36	0.36	0.89
CS 42-1 0-8cm	538	88	< 50	663	0.38	0.13	0.16	0.66	0.05	< 0.08	0.09	0.18
CS 46-1 10-20cm	1459	157	73	1688	0.49	0.21	0.45	1.15	0.25	0.31	0.25	0.81
CS 48-1 12-18cm	1044	111	50	1205	0.37	0.21	0.23	0.80	0.08	0.09	0.11	0.28
CS 50-1 15-23cm	523	78	59	660	0.45	0.20	0.38	1.03	0.16	0.18	0.19	0.54
CS 52-1 6-13cm	395	69	52	516	0.45	0.21	0.28	0.94	0.05	0.09	0.14	0.28
CS 54-1 10-23cm	214	< 50	< 50	263	0.20	0.11	0.17	0.49	0.04	< 0.08	0.08	0.17
CS 56-1 13-18cm	558	78	58	694	0.49	0.18	0.26	0.93	0.07	0.10	0.16	0.34
CS 58-1 10-22cm	1612	224	58	1894	0.37	0.16	0.18	0.70	0.07	< 0.08	0.11	0.24
CS 38-1 38-43cm	581	370	434	1384	7.62	2.56	4.31	14.49	1.42	2.89	3.30	7.61
CS 42-1 48-53cm	64	< 50	< 50	130	2.50	0.90	0.75	4.15	0.07	0.13	0.23	0.43
CS 46-1 50-60cm	37	< 50	< 50	< 113	0.34	0.11	0.17	0.62	0.03	< 0.08	0.06	< 0.14
CS 50-1 64-74cm	32	< 50	< 50	< 113	0.30	0.09	0.12	0.52	0.03	< 0.08	0.04	< 0.14
CS 52-1 49-54cm	235	< 50	< 50	278	0.25	0.09	0.14	0.47	0.03	< 0.08	0.04	< 0.14
CS 56-1 48-53cm	201	< 50	< 50	240	0.31	0.11	0.14	0.57	0.03	< 0.08	0.04	< 0.14
CS 42-1 85-95cm	242	398	383	1023	5.09	1.47	7.39	13.94	8.34	5.55	10.63	24.52
CS 46-1 97-107cm	31	< 50	< 50	< 113	2.03	0.59	0.56	3.18	0.04	< 0.08	0.16	0.27
CS 48-1 100-105cm	81	< 50	< 50	114	1.65	0.49	0.43	2.58	0.04	< 0.08	0.10	0.18
CS 50-1 104-114cm	28	< 50	< 50	< 113	1.30	0.31	0.28	1.89	0.04	< 0.08	0.07	< 0.14
CS 52-1 94-98cm	88	62	< 50	195	0.73	0.19	0.30	1.23	0.19	0.24	0.15	0.58
REPEATS												
CS 1-1 0-10cm	455	619	305	1379	2.51	1.41	3.18	7.10	2.12	3.49	1.86	7.48
CS 1-1 0-10cm REP	466	632	305	1403	2.64	1.42	3.06	7.13	2.18	3.40	1.83	7.42
CS 17-1B 70-75 cm	363	472	341	1176	7.02	2.35	3.97	13.33	1.48	2.52	1.88	5.87
CS 17-1B 70-75 cm REP	383	495	357	1235	7.11	2.38	4.13	13.62	1.57	2.69	2.07	6.33
CS 25-1 23-28cm	195	< 50	< 50	242	0.28	0.16	0.20	0.64	0.03	< 0.08	0.07	0.15
CS 25-1 23-28cm REP	197	< 50	< 50	249	0.28	0.16	0.23	0.67	0.03	< 0.08	0.10	0.19
CS 38-1 38-43cm	581	370	434	1384	7.62	2.56	4.31	14.49	1.42	2.89	3.30	7.61
CS 38-1 38-43cm REP	565	360	426	1351	7.53	2.56	4.08	14.17	1.31	2.85	3.17	7.33
CS 52-1 49-54cm	235	< 50	< 50	278	0.25	0.09	0.14	0.47	0.03	< 0.08	0.04	< 0.14
CS 52-1 49-54cm REP	235	< 50	< 50	273	0.25	0.08	0.13	0.46	0.03	< 0.08	< 0.04	< 0.14
CONTROLS												
BLANK	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07	< 0.02	< 0.08	< 0.04	< 0.14
BLANK	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07	< 0.02	< 0.08	< 0.04	< 0.14
BLANK	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07	< 0.02	< 0.08	< 0.04	< 0.14
LKSD-4	316	364	450	1131	17.28	1.24	2.58	21.10	2.03	3.73	2.75	8.51
LKSD-4	319	367	472	1159	17.68	1.29	2.78	21.74	2.06	3.73	2.87	8.66
LKSD-4	305	359	462	1126	17.16	1.22	2.64	21.02	1.97	3.73	2.96	8.65

Provisional Values

	Mg ICP-ES 0.25M NH2OH 0.25M HCl	Mg ICP-ES 1M NH2OH 25% HOAc	Mg ICP-ES Aqua Regia	Mg ICP-ES SUM	Mn ICP-MS 0.25M NH2OH 0.25M HCl	Mn ICP-MS 1M NH2OH 25% HOAc	Mn ICP-MS Aqua Regia	Mn ICP-MS SUM
D.L.	ppm 1	ppm 5	ppm 5	ppm 11	ppm 0.1	ppm 0.4	ppm 0.2	ppm 0.7
CS 1-1 0-10cm	3608	1169	502	5280	214.3	18.2	7.0	239.5
CS 5-1 0-10cm	4777	486	69	5331	325.0	32.0	2.1	359.1
CS 9-1 0-10cm	5347	656	53	6056	2975.7	361.5	17.4	3354.6
CS 11-1 0-10cm	5294	633	48	5975	740.5	88.0	4.1	832.5
CS 13-1 0-5cm	2967	248	34	3249	1983.0	132.5	2.7	2118.1
CS 17-1 0-5cm	5521	455	26	6001	99.7	8.6	0.4	108.7
CS 19-1 0-10cm	6638	556	67	7261	1018.7	78.8	2.2	1099.8
CS 21-1 0-10cm	7604	509	65	8178	1641.9	96.9	2.3	1741.1
CS 23-1 0-10cm	5794	566	41	6401	5720.7	530.0	11.9	6262.5
CS 25-1A 0-10cm	5990	569	50	6609	2405.1	210.5	7.4	2623.0
CS 25-1 23-28cm	5730	348	26	6103	283.5	17.4	0.6	301.5
CS 27-1 0-5cm	6443	569	32	7045	97.2	8.5	0.7	106.3
CS 9-1 55-61cm	4714	284	81	5079	206.8	10.8	1.3	218.9
CS 11-1 44-47cm	5638	1796	802	8235	200.2	34.3	14.3	248.7
CS 13-1 45-49cm	4843	416	130	5388	431.1	27.1	2.4	460.6
CS 17-1B 70-75 cm	4128	779	359	5266	344.3	25.3	7.3	376.9
CS 19-1 59-64cm	3752	272	13	4037	133.0	10.3	0.3	143.6
CS 21-1 59-62cm	3538	245	144	3928	108.2	5.3	4.6	118.1
CS 25-1 58-63cm	3953	278	29	4259	216.9	15.0	0.7	232.6
CS 27-1 56-66cm	7063	524	42	7629	168.0	11.9	0.8	180.7
CS 21-1 89-94cm	5824	500	74	6399	118.5	9.9	1.0	129.4
CS 38-1 28-33cm	4619	423	71	5113	56.6	5.7	1.1	63.4
CS 42-1 0-8cm	5447	731	66	6244	2163.9	282.4	15.4	2461.7
CS 46-1 10-20cm	5809	484	87	6381	541.1	35.2	2.0	578.2
CS 48-1 12-18cm	5695	506	51	6252	369.9	31.5	1.4	402.8
CS 50-1 15-23cm	5692	532	72	6297	596.7	49.1	2.3	648.1
CS 52-1 6-13cm	5842	726	62	6630	174.5	21.6	1.3	197.5
CS 54-1 10-23cm	5319	392	31	5742	261.7	19.3	0.8	281.8
CS 56-1 13-18cm	5598	567	63	6229	176.0	16.8	1.3	194.2
CS 58-1 10-22cm	5325	691	66	6081	303.1	36.9	2.4	342.4
CS 38-1 38-43cm	4472	633	423	5528	92.1	11.9	6.1	110.1
CS 42-1 48-53cm	4477	369	46	4891	124.4	9.8	0.8	135.0
CS 46-1 50-60cm	4577	321	22	4920	132.2	9.0	0.5	141.7
CS 50-1 64-74cm	4218	267	15	4500	137.6	8.9	0.4	146.9
CS 52-1 49-54cm	5104	471	19	5594	170.7	15.8	0.5	187.0
CS 56-1 48-53cm	5298	465	24	5788	64.8	5.8	0.5	71.0
CS 42-1 85-95cm	6525	1671	2196	10392	237.1	25.2	29.6	291.9
CS 46-1 97-107cm	4385	350	35	4770	272.9	21.5	0.9	295.4
CS 48-1 100-105cm	4601	321	27	4948	219.7	15.0	0.7	235.4
CS 50-1 104-114cm	3989	331	21	4341	315.3	25.4	0.8	341.5
CS 52-1 94-98cm	3725	387	43	4155	315.9	28.0	1.4	345.3
REPEATS								
CS 1-1 0-10cm	3608	1169	502	5280	214.3	18.2	7.0	239.5
CS 1-1 0-10cm REP	3671	1183	493	5346	224.6	18.8	8.9	252.4
CS 17-1B 70-75 cm	4128	779	359	5266	344.3	25.3	7.3	376.9
CS 17-1B 70-75 cm REP	4094	823	367	5284	348.2	27.2	7.7	383.1
CS 25-1 23-28cm	5730	348	26	6103	283.5	17.4	0.6	301.5
CS 25-1 23-28cm REP	5763	356	30	6149	291.1	18.1	0.8	310.0
CS 38-1 38-43cm	4472	633	423	5528	92.1	11.9	6.1	110.1
CS 38-1 38-43cm REP	4453	620	409	5482	91.0	11.5	5.8	108.3
CS 52-1 49-54cm	5104	471	19	5594	170.7	15.8	0.5	187.0
CS 52-1 49-54cm REP	5043	410	18	5471	172.2	14.1	0.5	186.7
CONTROLS								
BLANK	< 1	< 5	< 5	< 11	< 0.1	< 0.4	< 0.2	< 0.7
BLANK	< 1	< 5	< 5	< 11	< 0.1	< 0.4	< 0.2	< 0.7
BLANK	< 1	< 5	< 5	< 11	< 0.1	< 0.4	< 0.2	< 0.7
LKSD-4	1328	1214	1001	3542	317.3	55.5	36.1	408.9
LKSD-4	1326	1223	1045	3594	328.3	57.3	38.6	424.2
LKSD-4	1304	1201	1046	3551	319.0	54.7	38.9	412.5
Provisional Values				0.41 ± 0.05%				430 ± 30

	Na ICP-ES 0.25M NH2OH 0.25M HCl ppm	Na ICP-ES 1M NH2OH 25% HOAc ppm	Na ICP-ES Aqua Regia ppm	Na ICP-ES SUM ppm	Nd ICP-MS 0.25M NH2OH 0.25M HCl ppm	Nd ICP-MS 1M NH2OH 25% HOAc ppm	Nd ICP-MS Aqua Regia ppm	Nd ICP-MS SUM ppm	Ni ICP-MS 0.25M NH2OH 0.25M HCl ppm	Ni ICP-MS 1M NH2OH 25% HOAc ppm	Ni ICP-MS Aqua Regia ppm	Ni ICP-MS SUM ppm
D.L.	13	50	50	113	0.005	0.02	0.01	0.04	0.2	0.8	0.4	1.4
CS 1-1 0-10cm	37	< 50	< 50	< 113	1.569	1.61	3.60	6.78	11.4	5.9	4.4	21.6
CS 5-1 0-10cm	63	< 50	< 50	< 113	0.507	0.25	0.36	1.12	1.3	< 0.8	1.0	2.9
CS 9-1 0-10cm	34	< 50	< 50	< 113	0.243	0.13	0.13	0.50	1.4	< 0.8	0.8	2.7
CS 11-1 0-10cm	31	< 50	< 50	< 113	0.260	0.20	0.23	0.69	1.2	< 0.8	0.9	2.5
CS 13-1 0-5cm	25	< 50	< 50	< 113	0.319	0.11	0.16	0.59	1.3	< 0.8	0.5	2.4
CS 17-1 0-5cm	21	< 50	< 50	< 113	0.142	0.13	0.21	0.47	0.7	< 0.8	1.3	2.4
CS 19-1 0-10cm	50	< 50	< 50	< 113	0.267	0.24	0.43	0.94	0.8	< 0.8	1.2	2.4
CS 21-1 0-10cm	21	< 50	< 50	< 113	0.281	0.30	0.57	1.15	0.9	< 0.8	1.1	2.3
CS 23-1 0-10cm	48	< 50	< 50	< 113	0.289	0.15	0.18	0.61	1.1	< 0.8	0.8	2.5
CS 25-1A 0-10cm	77	< 50	< 50	115	0.241	0.17	0.22	0.62	1.2	< 0.8	0.9	2.5
CS 25-1 23-28cm	91	< 50	< 50	122	0.198	0.18	0.35	0.72	1.9	< 0.8	1.6	4.1
CS 27-1 0-5cm	29	< 50	< 50	< 113	0.253	0.24	0.29	0.79	1.2	< 0.8	1.2	2.8
CS 9-1 55-61cm	27	< 50	< 50	< 113	3.445	2.61	3.20	9.25	8.5	2.0	2.1	12.5
CS 11-1 44-47cm	45	< 50	< 50	119	9.133	5.92	8.22	23.28	19.3	8.7	5.8	33.8
CS 13-1 45-49cm	37	< 50	< 50	< 113	2.023	1.64	2.63	6.29	8.5	2.2	2.2	12.9
CS 17-1B 70-75 cm	52	< 50	< 50	< 113	3.987	2.26	4.36	10.60	16.2	7.4	7.4	31.0
CS 19-1 59-64cm	53	< 50	< 50	< 113	0.155	0.08	0.18	0.41	0.7	< 0.8	1.2	2.4
CS 21-1 59-62cm	18	< 50	< 50	< 113	1.131	0.76	4.02	5.90	1.1	0.8	1.3	3.3
CS 25-1 58-63cm	40	< 50	< 50	< 113	0.391	0.25	0.49	1.13	4.4	1.2	1.9	7.4
CS 27-1 56-66cm	20	< 50	< 50	< 113	0.429	0.37	0.75	1.55	2.2	< 0.8	1.6	4.3
CS 21-1 89-94cm	33	< 50	< 50	< 113	0.872	0.67	1.30	2.84	2.3	0.9	2.0	5.2
CS 38-1 28-33cm	45	< 50	< 50	< 113	1.751	1.14	1.02	3.90	3.9	1.3	1.5	6.6
CS 42-1 0-8cm	40	< 50	< 50	< 113	0.255	0.15	0.18	0.58	0.9	< 0.8	0.9	2.5
CS 46-1 10-20cm	28	< 50	< 50	< 113	0.331	0.26	0.50	1.09	0.9	0.8	1.4	3.1
CS 48-1 12-18cm	89	< 50	< 50	122	0.237	0.22	0.27	0.72	0.7	< 0.8	1.4	2.4
CS 50-1 15-23cm	29	< 50	< 50	< 113	0.316	0.26	0.43	1.01	0.8	< 0.8	1.1	2.2
CS 52-1 6-13cm	36	< 50	< 50	< 113	0.318	0.26	0.34	0.91	0.9	< 0.8	0.9	2.2
CS 54-1 10-23cm	83	< 50	< 50	117	0.135	0.13	0.24	0.51	0.6	< 0.8	1.3	2.3
CS 56-1 13-18cm	65	< 50	< 50	< 113	0.349	0.23	0.30	0.88	0.9	< 0.8	0.8	2.2
CS 58-1 10-22cm	173	< 50	< 50	222	0.268	0.17	0.20	0.64	0.8	< 0.8	0.8	2.1
CS 38-1 38-43cm	66	< 50	< 50	132	4.785	2.86	4.31	11.95	7.6	3.4	3.8	14.7
CS 42-1 48-53cm	51	< 50	< 50	< 113	1.389	0.82	1.19	3.41	5.6	1.4	2.0	9.0
CS 46-1 50-60cm	27	< 50	< 50	< 113	0.198	0.10	0.23	0.53	1.4	< 0.8	1.6	3.6
CS 50-1 64-74cm	39	< 50	< 50	< 113	0.179	0.09	0.18	0.45	1.4	< 0.8	1.8	3.9
CS 52-1 49-54cm	59	< 50	< 50	< 113	0.174	0.09	0.21	0.47	1.4	< 0.8	1.6	3.6
CS 56-1 48-53cm	61	< 50	< 50	< 113	0.209	0.12	0.22	0.55	0.9	0.9	2.3	4.0
CS 42-1 85-95cm	42	< 50	< 50	< 113	3.991	1.74	7.16	12.89	13.2	5.5	8.9	27.7
CS 46-1 97-107cm	31	< 50	< 50	< 113	1.151	0.51	0.87	2.53	4.7	1.2	2.3	8.1
CS 48-1 100-105cm	73	< 50	< 50	< 113	0.975	0.45	0.79	2.21	2.6	0.9	1.9	5.4
CS 50-1 104-114cm	54	< 50	< 50	< 113	0.706	0.26	0.46	1.42	4.7	1.1	1.7	7.5
CS 52-1 94-98cm	56	< 50	< 50	< 113	0.492	0.19	0.38	1.07	5.8	1.8	2.1	9.7
REPEATS												
CS 1-1 0-10cm	37	< 50	< 50	< 113	1.569	1.61	3.60	6.78	11.4	5.9	4.4	21.6
CS 1-1 0-10cm REP	36	< 50	< 50	< 113	1.616	1.64	3.53	6.78	11.8	6.1	4.5	22.4
CS 17-1B 70-75 cm	52	< 50	< 50	< 113	3.987	2.26	4.36	10.60	16.2	7.4	7.4	31.0
CS 17-1B 70-75 cm REP	52	< 50	< 50	< 113	4.102	2.35	4.46	10.91	16.3	9.2	7.9	33.4
CS 25-1 23-28cm	91	< 50	< 50	122	0.198	0.18	0.35	0.72	1.9	< 0.8	1.6	4.1
CS 25-1 23-28cm REP	91	< 50	< 50	125	0.197	0.19	0.38	0.77	1.9	0.9	1.8	4.5
CS 38-1 38-43cm	66	< 50	< 50	132	4.785	2.86	4.31	11.95	7.6	3.4	3.8	14.7
CS 38-1 38-43cm REP	65	< 50	< 50	139	4.710	2.91	4.12	11.74	7.5	3.4	3.6	14.5
CS 52-1 49-54cm	59	< 50	< 50	< 113	0.174	0.09	0.21	0.47	1.4	< 0.8	1.6	3.6
CS 52-1 49-54cm REP	59	< 50	< 50	< 113	0.175	0.09	0.21	0.47	1.4	< 0.8	1.6	3.5
CONTROLS												
BLANK	< 13	< 50	< 50	< 113	< 0.005	< 0.02	< 0.01	< 0.04	< 0.2	< 0.8	< 0.4	< 1.4
BLANK	< 13	< 50	< 50	< 113	< 0.005	< 0.02	< 0.01	< 0.04	< 0.2	< 0.8	< 0.4	< 1.4
BLANK	< 13	< 50	< 50	< 113	< 0.005	< 0.02	< 0.01	< 0.04	< 0.2	< 0.8	< 0.4	< 1.4
LKSD-4	65	< 50	110	222	17.416	1.58	2.40	21.40	16.8	6.0	7.9	30.7
LKSD-4	66	< 50	118	232	17.975	1.61	2.61	22.19	17.2	6.0	8.2	31.4
LKSD-4	64	< 50	116	225	17.656	1.54	2.44	21.63	17.0	5.7	8.2	30.8
Provisional Values												31 ± 5

	P	P	P	P	Pb	Pb	Pb	Pb	Pr	Pr	Pr	Pr
	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	13	50	50	113	0.01	0.04	0.02	0.07	0.005	0.02	0.01	0.04
CS 1-1 0-10cm	202	135	319	656	1.14	0.23	0.14	1.51	0.431	0.40	0.91	1.74
CS 5-1 0-10cm	294	212	264	770	29.92	4.20	0.47	34.59	0.138	0.06	0.10	0.30
CS 9-1 0-10cm	623	291	295	1209	17.58	2.82	0.33	20.73	0.067	0.03	0.03	0.13
CS 11-1 0-10cm	288	201	218	707	10.93	1.96	0.25	13.14	0.072	0.05	0.05	0.17
CS 13-1 0-5cm	337	269	244	850	12.18	1.16	0.10	13.44	0.081	0.02	0.04	0.15
CS 17-1 0-5cm	237	295	305	838	0.72	0.11	0.03	0.86	0.042	0.03	0.05	0.13
CS 19-1 0-10cm	363	318	372	1052	23.49	3.55	0.34	27.39	0.073	0.07	0.11	0.25
CS 21-1 0-10cm	418	311	368	1096	12.87	1.91	0.19	14.97	0.073	0.08	0.13	0.28
CS 23-1 0-10cm	553	329	344	1225	34.51	4.96	0.43	39.89	0.080	0.04	0.05	0.16
CS 25-1A 0-10cm	319	194	234	746	22.41	3.35	0.34	26.10	0.065	0.04	0.05	0.16
CS 25-1 23-28cm	202	262	262	726	1.85	0.30	0.05	2.20	0.054	0.05	0.08	0.18
CS 27-1 0-5cm	205	200	245	650	8.61	1.50	0.18	10.29	0.069	0.06	0.07	0.20
CS 9-1 55-61cm	101	198	250	550	1.78	0.28	0.10	2.16	1.012	0.70	0.78	2.49
CS 11-1 44-47cm	128	143	274	546	3.35	0.80	0.65	4.80	2.701	1.59	2.14	6.43
CS 13-1 45-49cm	132	221	334	686	1.68	0.30	0.15	2.12	0.597	0.46	0.66	1.71
CS 17-1B 70-75 cm	91	169	265	525	2.74	0.52	0.42	3.67	1.176	0.61	1.12	2.90
CS 19-1 59-64cm	60	142	160	361	0.27	0.05	0.02	0.34	0.045	0.02	0.04	0.11
CS 21-1 59-62cm	160	92	108	360	0.73	0.10	0.21	1.04	0.314	0.20	1.05	1.57
CS 25-1 58-63cm	70	176	190	435	0.43	0.06	0.02	0.52	0.109	0.06	0.11	0.28
CS 27-1 56-66cm	86	109	166	360	0.67	0.12	0.04	0.83	0.117	0.10	0.18	0.40
CS 21-1 89-94cm	65	136	198	399	0.70	0.15	0.06	0.91	0.259	0.18	0.31	0.75
CS 38-1 28-33cm	262	243	309	815	1.32	0.25	0.07	1.63	0.499	0.29	0.26	1.05
CS 42-1 0-8cm	261	217	276	754	19.65	3.49	0.43	23.57	0.069	0.04	0.05	0.15
CS 46-1 10-20cm	392	295	349	1037	22.18	2.84	0.28	25.30	0.091	0.07	0.12	0.28
CS 48-1 12-18cm	243	275	329	847	18.77	2.60	0.30	21.67	0.065	0.06	0.07	0.19
CS 50-1 15-23cm	261	224	264	750	29.36	3.97	0.39	33.72	0.087	0.06	0.11	0.26
CS 52-1 6-13cm	256	235	268	759	26.97	4.39	0.38	31.75	0.087	0.06	0.08	0.23
CS 54-1 10-23cm	192	219	272	683	1.74	0.31	0.04	2.09	0.037	0.03	0.06	0.13
CS 56-1 13-18cm	264	246	286	795	32.85	4.47	0.40	37.72	0.096	0.06	0.08	0.23
CS 58-1 10-22cm	198	227	257	682	29.46	4.90	0.56	34.92	0.071	0.04	0.05	0.17
CS 38-1 38-43cm	162	258	514	934	2.43	0.50	0.41	3.33	1.358	0.74	1.14	3.23
CS 42-1 48-53cm	88	205	255	548	0.57	0.10	0.04	0.72	0.388	0.22	0.29	0.89
CS 46-1 50-60cm	74	172	217	462	0.61	0.14	0.03	0.77	0.056	0.03	0.06	0.14
CS 50-1 64-74cm	61	134	193	388	0.94	0.20	0.04	1.17	0.050	0.02	0.05	0.12
CS 52-1 49-54cm	91	163	215	469	0.37	0.06	< 0.02	0.45	0.049	0.02	0.05	0.12
CS 56-1 48-53cm	76	138	180	394	0.71	0.39	0.06	1.15	0.056	0.03	0.05	0.14
CS 42-1 85-95cm	325	177	223	725	5.76	0.97	0.48	7.21	1.078	0.44	1.91	3.42
CS 46-1 97-107cm	54	151	232	436	0.67	0.11	0.04	0.82	0.334	0.14	0.21	0.68
CS 48-1 100-105cm	50	134	176	360	0.59	0.08	0.02	0.69	0.282	0.12	0.19	0.59
CS 50-1 104-114cm	45	136	188	368	0.60	0.12	0.03	0.75	0.202	0.07	0.11	0.38
CS 52-1 94-98cm	52	140	170	362	0.48	0.09	0.04	0.61	0.133	0.05	0.09	0.28
REPEATS												
CS 1-1 0-10cm	202	135	319	656	1.14	0.23	0.14	1.51	0.431	0.40	0.91	1.74
CS 1-1 0-10cm REP	200	141	327	667	1.19	0.26	0.16	1.60	0.450	0.42	0.89	1.76
CS 17-1B 70-75 cm	91	169	265	525	2.74	0.52	0.42	3.67	1.176	0.61	1.12	2.90
CS 17-1B 70-75 cm REP	85	165	264	514	2.74	0.54	0.38	3.66	1.193	0.63	1.15	2.98
CS 25-1 23-28cm	202	262	262	726	1.85	0.30	0.05	2.20	0.054	0.05	0.08	0.18
CS 25-1 23-28cm REP	202	270	298	770	1.87	0.30	0.06	2.22	0.053	0.04	0.09	0.18
CS 38-1 38-43cm	162	258	514	934	2.43	0.50	0.41	3.33	1.358	0.74	1.14	3.23
CS 38-1 38-43cm REP	160	263	500	923	2.41	0.47	0.38	3.26	1.340	0.75	1.08	3.17
CS 52-1 49-54cm	91	163	215	469	0.37	0.06	< 0.02	0.45	0.049	0.02	0.05	0.12
CS 52-1 49-54cm REP	91	151	207	449	0.37	0.05	< 0.02	0.43	0.049	0.02	0.05	0.12
CONTROLS												
BLANK	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07	< 0.005	< 0.02	< 0.01	< 0.04
BLANK	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07	< 0.005	< 0.02	< 0.01	< 0.04
LKSD-4	625	349	311	1286	84.67	3.22	0.85	88.74	4.435	0.39	0.62	5.45
LKSD-4	641	345	323	1309	86.52	3.16	0.82	90.50	4.585	0.40	0.68	5.66
LKSD-4	631	335	323	1289	86.90	2.99	0.84	90.73	4.449	0.37	0.65	5.47
Provisional Values				1440 ± 182				89 ± 4				

	Rb ICP-MS 0.25M NH2OH 0.25M HCl ppm	Rb ICP-MS 1M NH2OH 25% HOAc ppm	Rb ICP-MS Aqua Regia ppm	Rb ICP-MS SUM ppm	S ICP-ES 0.25M NH2OH 0.25M HCl ppm	S ICP-ES 1M NH2OH 25% HOAc ppm	S ICP-ES Aqua Regia ppm	S ICP-ES SUM ppm	Sb ICP-MS 0.25M NH2OH 0.25M HCl ppm	Sb ICP-MS 1M NH2OH 25% HOAc ppm	Sb ICP-MS Aqua Regia ppm	Sb ICP-MS SUM ppm
D.L.	0.05	0.2	0.1	0.4	13	50	50	113	0.01	0.04	0.02	0.07
CS 1-1 0-10cm	1.96	5.7	2.1	9.7	164	354	746	1263	0.01	< 0.04	0.06	0.09
CS 5-1 0-10cm	0.53	0.2	0.6	1.4	105	311	1235	1651	< 0.01	< 0.04	0.35	0.37
CS 9-1 0-10cm	2.01	0.4	0.3	2.7	110	334	1253	1697	< 0.01	< 0.04	0.16	0.17
CS 11-1 0-10cm	0.67	< 0.2	0.3	1.1	95	330	1041	1465	< 0.01	< 0.04	0.19	0.19
CS 13-1 0-5cm	1.20	0.5	0.5	2.3	160	371	859	1389	< 0.01	< 0.04	0.10	0.11
CS 17-1 0-5cm	0.18	< 0.2	0.3	0.5	76	380	1329	1785	< 0.01	< 0.04	0.04	< 0.07
CS 19-1 0-10cm	1.81	0.5	1.1	3.4	167	558	1630	2355	< 0.01	< 0.04	0.22	0.22
CS 21-1 0-10cm	1.73	0.4	0.8	2.9	237	680	1629	2546	< 0.01	< 0.04	0.17	0.20
CS 23-1 0-10cm	3.15	0.4	0.4	4.0	165	499	1248	1912	0.02	< 0.04	0.28	0.31
CS 25-1A 0-10cm	1.11	0.3	0.5	1.9	140	414	1088	1642	< 0.01	< 0.04	0.18	0.19
CS 25-1 23-28cm	0.12	< 0.2	0.2	0.4	121	495	1288	1905	< 0.01	< 0.04	0.05	< 0.07
CS 27-1 0-5cm	0.52	< 0.2	0.3	1.0	203	475	1962	2640	< 0.01	< 0.04	0.20	0.22
CS 9-1 55-61cm	0.49	0.5	1.4	2.3	144	488	1143	1776	0.02	< 0.04	0.04	0.08
CS 11-1 44-47cm	8.04	14.1	7.2	29.4	86	285	754	1125	0.04	< 0.04	0.05	0.12
CS 13-1 45-49cm	0.87	0.9	1.6	3.4	132	437	1217	1786	0.02	< 0.04	0.06	0.08
CS 17-1B 70-75 cm	2.56	3.6	2.9	9.1	79	371	1134	1584	0.01	< 0.04	0.03	< 0.07
CS 19-1 59-64cm	0.09	< 0.2	< 0.1	< 0.4	52	267	1022	1340	< 0.01	< 0.04	< 0.02	< 0.07
CS 21-1 59-62cm	0.44	0.4	0.7	1.5	51	194	692	936	< 0.01	< 0.04	< 0.02	< 0.07
CS 25-1 58-63cm	0.07	< 0.2	0.1	< 0.4	84	420	1343	1847	< 0.01	< 0.04	0.03	< 0.07
CS 27-1 56-66cm	0.11	< 0.2	0.4	0.6	138	304	1253	1694	< 0.01	< 0.04	0.06	0.07
CS 21-1 89-94cm	0.27	0.4	0.6	1.2	95	377	1486	1958	< 0.01	< 0.04	0.04	< 0.07
CS 38-1 28-33cm	0.46	0.4	0.8	1.6	99	359	1055	1513	< 0.01	< 0.04	0.06	0.07
CS 42-1 0-8cm	1.09	0.3	0.4	1.8	116	373	1360	1849	< 0.01	< 0.04	0.21	0.21
CS 46-1 10-20cm	2.41	1.1	1.4	4.9	173	558	1638	2369	< 0.01	< 0.04	0.20	0.21
CS 48-1 12-18cm	1.50	0.3	0.8	2.6	160	523	1894	2577	< 0.01	< 0.04	0.29	0.30
CS 50-1 15-23cm	0.99	0.4	0.7	2.1	133	414	1516	2063	< 0.01	< 0.04	0.23	0.25
CS 52-1 6-13cm	0.59	0.2	0.6	1.4	175	505	1741	2421	< 0.01	< 0.04	0.26	0.28
CS 54-1 10-23cm	0.19	< 0.2	0.2	0.5	112	428	1732	2272	< 0.01	< 0.04	0.11	0.12
CS 56-1 13-18cm	0.71	0.2	0.7	1.7	339	715	2637	3691	< 0.01	< 0.04	0.26	0.27
CS 58-1 10-22cm	1.90	0.4	0.6	2.9	342	517	2322	3181	< 0.01	< 0.04	0.26	0.27
CS 38-1 38-43cm	2.21	2.5	4.7	9.4	102	394	1083	1579	0.05	< 0.04	0.05	0.12
CS 42-1 48-53cm	< 0.05	< 0.2	0.3	0.4	79	379	1370	1828	0.02	< 0.04	0.03	< 0.07
CS 46-1 50-60cm	0.08	< 0.2	0.1	< 0.4	59	317	1299	1675	< 0.01	< 0.04	0.03	< 0.07
CS 50-1 64-74cm	0.07	< 0.2	< 0.1	< 0.4	56	224	1178	1458	< 0.01	< 0.04	0.03	< 0.07
CS 52-1 49-54cm	0.25	< 0.2	0.1	0.4	60	286	1368	1714	< 0.01	< 0.04	0.03	< 0.07
CS 56-1 48-53cm	0.29	< 0.2	0.3	0.6	51	253	1169	1473	< 0.01	< 0.04	0.02	< 0.07
CS 42-1 85-95cm	1.14	2.7	1.8	5.6	50	199	634	882	0.03	< 0.04	0.04	0.07
CS 46-1 97-107cm	0.07	< 0.2	0.2	< 0.4	62	311	1453	1826	0.01	< 0.04	0.03	< 0.07
CS 48-1 100-105cm	0.11	< 0.2	0.2	< 0.4	66	308	1395	1768	< 0.01	< 0.04	0.03	< 0.07
CS 50-1 104-114cm	< 0.05	< 0.2	< 0.1	< 0.4	69	286	1347	1702	< 0.01	< 0.04	0.04	< 0.07
CS 52-1 94-98cm	0.42	0.5	0.3	1.2	62	277	1208	1547	0.01	< 0.04	0.02	< 0.07
REPEATS												
CS 1-1 0-10cm	1.96	5.7	2.1	9.7	164	354	746	1263	0.01	< 0.04	0.06	0.09
CS 1-1 0-10cm REP	2.13	5.7	2.1	9.9	165	360	755	1279	0.02	< 0.04	0.06	0.09
CS 17-1B 70-75 cm	2.56	3.6	2.9	9.1	79	371	1134	1584	0.01	< 0.04	0.03	< 0.07
CS 17-1B 70-75 cm REP	2.72	3.8	3.2	9.8	78	374	1117	1569	0.01	< 0.04	0.04	< 0.07
CS 25-1 23-28cm	0.12	< 0.2	0.2	0.4	121	495	1288	1905	< 0.01	< 0.04	0.05	< 0.07
CS 25-1 23-28cm REP	0.12	< 0.2	0.3	0.4	119	514	1458	2091	< 0.01	< 0.04	0.05	< 0.07
CS 38-1 38-43cm	2.21	2.5	4.7	9.4	102	394	1083	1579	0.05	< 0.04	0.05	0.12
CS 38-1 38-43cm REP	2.05	2.4	4.6	9.0	99	401	1062	1563	0.04	< 0.04	0.05	0.12
CS 52-1 49-54cm	0.25	< 0.2	0.1	0.4	60	286	1368	1714	< 0.01	< 0.04	0.03	< 0.07
CS 52-1 49-54cm REP	0.25	< 0.2	0.1	0.4	59	257	1294	1610	< 0.01	< 0.04	0.03	< 0.07
CONTROLS												
BLANK	< 0.05	< 0.2	< 0.1	< 0.4	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.05	< 0.2	< 0.1	< 0.4	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.05	< 0.2	< 0.1	< 0.4	< 13	< 50	< 50	< 113	< 0.01	< 0.04	< 0.02	< 0.07
LKSD-4	3.00	3.5	3.5	10.0	3239	981	5194	9414	0.12	0.15	0.84	1.10
LKSD-4	3.00	3.5	3.7	10.2	3364	969	5229	9561	0.12	0.14	0.82	1.08
LKSD-4	2.88	3.4	3.7	10.0	3287	927	5227	9441	0.12	0.13	0.85	1.10
Provisional Values												1.5 ± 0.6

	Si ICP-ES 0.25M NH2OH 0.25M HCl	Si ICP-ES 1M NH2OH 25% HOAc	Si ICP-ES Aqua Regia	Si ICP-ES SUM	Sm ICP-MS 0.25M NH2OH 0.25M HCl	Sm ICP-MS 1M NH2OH 25% HOAc	Sm ICP-MS Aqua Regia	Sm ICP-MS SUM	Sr ICP-ES 0.25M NH2OH 0.25M HCl	Sr ICP-ES 1M NH2OH 25% HOAc	Sr ICP-ES Aqua Regia	Sr ICP-ES SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	5	20	20	45	0.005	0.02	0.01	0.04	0.3	1	1	2
CS 1-1 0-10cm	1111	1838	416	3364	0.275	0.29	0.69	1.26	53.4	2	< 1	56
CS 5-1 0-10cm	362	324	573	1258	0.096	0.05	0.07	0.22	41.6	4	< 1	46
CS 9-1 0-10cm	159	192	349	700	0.046	0.02	0.03	0.10	33.2	4	< 1	38
CS 11-1 0-10cm	81	156	344	581	0.049	0.03	0.05	0.13	27.6	3	< 1	31
CS 13-1 0-5cm	213	196	308	717	0.062	< 0.02	0.03	0.11	14.5	1	< 1	16
CS 17-1 0-5cm	42	80	178	300	0.026	0.02	0.04	0.09	23.2	2	< 1	26
CS 19-1 0-10cm	257	366	573	1197	0.050	0.05	0.09	0.18	25.6	2	< 1	28
CS 21-1 0-10cm	225	266	489	979	0.050	0.06	0.11	0.22	32.3	3	< 1	35
CS 23-1 0-10cm	240	201	391	831	0.056	0.03	0.04	0.13	24.4	3	< 1	27
CS 25-1A 0-10cm	178	226	413	816	0.046	0.03	0.05	0.13	24.8	2	< 1	27
CS 25-1 23-28cm	68	93	241	402	0.038	0.04	0.07	0.15	37.3	3	< 1	40
CS 27-1 0-5cm	130	144	261	536	0.045	0.05	0.07	0.16	44.3	4	< 1	49
CS 9-1 55-61cm	225	562	544	1331	0.548	0.42	0.66	1.63	49.2	3	< 1	53
CS 11-1 44-47cm	4003	4223	602	8828	1.378	0.95	1.49	3.81	44.4	3	4	51
CS 13-1 45-49cm	451	900	603	1954	0.321	0.26	0.53	1.11	41.9	3	1	46
CS 17-1B 70-75 cm	1443	2489	562	4494	0.666	0.38	0.82	1.87	41.2	3	2	46
CS 19-1 59-64cm	20	49	111	179	0.027	< 0.02	0.04	0.08	23.7	2	< 1	26
CS 21-1 59-62cm	478	448	425	1351	0.202	0.13	0.72	1.05	15.3	< 1	< 1	17
CS 25-1 58-63cm	71	100	251	422	0.069	0.04	0.10	0.20	39.7	3	< 1	43
CS 27-1 56-66cm	75	169	414	658	0.073	0.06	0.17	0.30	69.1	6	< 1	75
CS 21-1 89-94cm	232	452	605	1289	0.147	0.11	0.29	0.55	28.8	3	< 1	32
CS 38-1 28-33cm	238	424	560	1221	0.285	0.21	0.22	0.71	31.3	3	< 1	35
CS 42-1 0-8cm	176	181	375	733	0.046	0.03	0.04	0.12	24.5	3	< 1	28
CS 46-1 10-20cm	437	444	542	1423	0.062	0.05	0.09	0.20	22.6	2	< 1	25
CS 48-1 12-18cm	192	212	436	840	0.040	0.05	0.06	0.14	22.5	2	< 1	25
CS 50-1 15-23cm	266	318	563	1147	0.060	0.05	0.10	0.20	27.9	3	< 1	31
CS 52-1 6-13cm	195	282	540	1017	0.059	0.06	0.07	0.19	36.8	5	< 1	42
CS 54-1 10-23cm	80	94	243	417	0.022	0.02	0.06	0.10	34.3	3	< 1	38
CS 56-1 13-18cm	186	276	568	1030	0.064	0.05	0.06	0.18	31.5	3	< 1	35
CS 58-1 10-22cm	73	173	429	674	0.047	0.03	0.04	0.12	31.3	4	< 1	36
CS 38-1 38-43cm	1649	3145	650	5445	0.779	0.54	0.79	2.10	28.2	3	3	33
CS 42-1 48-53cm	71	167	487	725	0.234	0.14	0.26	0.63	35.5	3	< 1	39
CS 46-1 50-60cm	35	65	172	271	0.038	< 0.02	0.05	0.10	29.3	3	< 1	32
CS 50-1 64-74cm	30	46	115	190	0.032	< 0.02	0.04	0.09	37.1	3	< 1	40
CS 52-1 49-54cm	45	47	115	206	0.037	< 0.02	0.05	0.10	44.2	5	< 1	49
CS 56-1 48-53cm	37	51	128	217	0.034	0.02	0.05	0.11	39.7	4	< 1	44
CS 42-1 85-95cm	7839	2418	440	10697	0.791	0.34	1.26	2.39	17.4	< 1	1	19
CS 46-1 97-107cm	37	98	344	479	0.194	0.09	0.19	0.47	42.4	4	< 1	47
CS 48-1 100-105cm	48	67	206	321	0.161	0.07	0.17	0.40	44.0	4	< 1	48
CS 50-1 104-114cm	56	49	161	266	0.120	0.05	0.09	0.26	40.7	4	< 1	45
CS 52-1 94-98cm	205	276	392	873	0.084	0.04	0.08	0.20	40.5	4	< 1	45
REPEATS												
CS 1-1 0-10cm	1111	1838	416	3364	0.275	0.29	0.69	1.26	53.4	2	< 1	56
CS 1-1 0-10cm REP	1133	1897	429	3460	0.292	0.31	0.67	1.27	53.5	3	< 1	57
CS 17-1B 70-75 cm	1443	2489	562	4494	0.666	0.38	0.82	1.87	41.2	3	2	46
CS 17-1B 70-75 cm REP	1519	2587	557	4663	0.665	0.42	0.82	1.91	41.0	3	3	46
CS 25-1 23-28cm	68	93	241	402	0.038	0.04	0.07	0.15	37.3	3	< 1	40
CS 25-1 23-28cm REP	69	106	277	452	0.034	0.04	0.09	0.16	37.7	3	< 1	41
CS 38-1 38-43cm	1649	3145	650	5445	0.779	0.54	0.79	2.10	28.2	3	3	33
CS 38-1 38-43cm REP	1601	3093	631	5326	0.782	0.52	0.73	2.02	28.6	3	3	34
CS 52-1 49-54cm	45	47	115	206	0.037	< 0.02	0.05	0.10	44.2	5	< 1	49
CS 52-1 49-54cm REP	45	47	107	198	0.032	< 0.02	0.05	0.09	43.9	4	< 1	48
CONTROLS												
BLANK	< 5	< 20	< 20	< 45	< 0.005	< 0.02	< 0.01	< 0.04	< 0.3	< 1	< 1	< 2
BLANK	< 5	< 20	< 20	< 45	< 0.005	< 0.02	< 0.01	< 0.04	< 0.3	< 1	< 1	< 2
BLANK	< 5	< 20	< 20	< 45	< 0.005	< 0.02	< 0.01	< 0.04	< 0.3	< 1	< 1	< 2
LKSD-4	2298	2396	454	5148	3.373	0.34	0.44	4.15	35.1	2	3	40
LKSD-4	2299	2387	430	5116	3.406	0.34	0.49	4.23	35.8	2	3	41
LKSD-4	2199	2304	450	4953	3.347	0.31	0.47	4.12	35.6	2	3	40
Provisional Values												41 ± 5

	Tb ICP-MS 0.25M NH2OH 0.25M HCl ppm	Tb ICP-MS 1M NH2OH 25% HOAc ppm	Tb ICP-MS Aqua Regia ppm	Tb ICP-MS SUM ppm	Th ICP-MS 0.25M NH2OH 0.25M HCl ppm	Th ICP-MS 1M NH2OH 25% HOAc ppm	Th ICP-MS Aqua Regia ppm	Th ICP-MS SUM ppm	Ti ICP-ES 0.25M NH2OH 0.25M HCl ppm	Ti ICP-ES 1M NH2OH 25% HOAc ppm	Ti ICP-ES Aqua Regia ppm	Ti ICP-ES SUM ppm
D.L.	0.005	0.02	0.01	0.04	0.02	0.08	0.04	0.14	0.5	2	2	5
CS 1-1 0-10cm	0.048	0.03	0.06	0.14	< 0.02	< 0.08	0.25	< 0.14	7.9	28	262	297
CS 5-1 0-10cm	0.015	< 0.02	< 0.01	< 0.04	0.15	< 0.08	0.21	0.36	0.7	< 2	36	37
CS 9-1 0-10cm	0.007	< 0.02	< 0.01	< 0.04	0.06	< 0.08	0.04	< 0.14	< 0.5	< 2	9	11
CS 11-1 0-10cm	0.009	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	0.07	< 0.14	0.5	< 2	18	19
CS 13-1 0-5cm	0.009	< 0.02	< 0.01	< 0.04	0.05	< 0.08	0.12	< 0.14	0.8	< 2	21	23
CS 17-1 0-5cm	< 0.005	< 0.02	< 0.01	< 0.04	0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	11	11
CS 19-1 0-10cm	0.010	< 0.02	< 0.01	< 0.04	0.06	0.14	0.19	0.38	< 0.5	< 2	26	28
CS 21-1 0-10cm	0.010	< 0.02	0.01	< 0.04	0.14	0.38	0.15	0.67	0.7	< 2	25	27
CS 23-1 0-10cm	0.009	< 0.02	< 0.01	< 0.04	0.03	0.19	0.10	0.32	< 0.5	< 2	13	13
CS 25-1A 0-10cm	0.008	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	0.11	< 0.14	< 0.5	< 2	13	15
CS 25-1 23-28cm	0.007	< 0.02	< 0.01	< 0.04	0.06	< 0.08	< 0.04	< 0.14	< 0.5	< 2	18	19
CS 27-1 0-5cm	0.009	< 0.02	< 0.01	< 0.04	0.17	< 0.08	0.31	0.55	0.5	< 2	19	20
CS 9-1 55-61cm	0.085	0.04	0.06	0.19	0.05	< 0.08	0.43	0.37	3.5	13	118	135
CS 11-1 44-47cm	0.194	0.09	0.12	0.40	0.05	0.09	2.55	2.70	30.7	76	692	799
CS 13-1 45-49cm	0.052	0.03	0.05	0.13	0.05	< 0.08	0.42	0.49	3.8	11	166	182
CS 17-1B 70-75 cm	0.097	0.04	0.07	0.20	0.03	0.18	1.38	1.59	14.5	25	371	410
CS 19-1 59-64cm	< 0.005	< 0.02	< 0.01	< 0.04	< 0.02	0.17	< 0.04	0.19	< 0.5	< 2	13	14
CS 21-1 59-62cm	0.032	< 0.02	0.06	0.10	< 0.02	0.30	0.84	1.15	4.5	3	124	131
CS 25-1 58-63cm	0.013	< 0.02	0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	0.9	< 2	31	33
CS 27-1 56-66cm	0.014	< 0.02	0.02	0.04	0.08	< 0.08	0.16	0.16	0.7	< 2	46	47
CS 21-1 89-94cm	0.025	< 0.02	0.03	0.07	< 0.02	0.27	0.41	0.69	2.2	3	117	122
CS 38-1 28-33cm	0.047	0.02	0.02	0.09	0.08	< 0.08	0.24	0.26	2.3	4	90	96
CS 42-1 0-8cm	0.008	< 0.02	< 0.01	< 0.04	0.03	< 0.08	0.09	< 0.14	< 0.5	< 2	14	15
CS 46-1 10-20cm	0.011	< 0.02	< 0.01	< 0.04	0.05	0.09	0.21	0.34	1.4	< 2	52	54
CS 48-1 12-18cm	0.008	< 0.02	< 0.01	< 0.04	0.03	0.21	0.08	0.32	< 0.5	< 2	15	16
CS 50-1 15-23cm	0.011	< 0.02	< 0.01	< 0.04	0.04	0.32	0.11	0.47	0.6	< 2	36	37
CS 52-1 6-13cm	0.011	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	0.5	< 2	21	23
CS 54-1 10-23cm	< 0.005	< 0.02	< 0.01	< 0.04	0.12	0.17	0.27	0.57	< 0.5	< 2	14	15
CS 56-1 13-18cm	0.011	< 0.02	< 0.01	< 0.04	0.05	< 0.08	0.08	< 0.14	< 0.5	< 2	20	21
CS 58-1 10-22cm	0.009	< 0.02	< 0.01	< 0.04	0.05	< 0.08	< 0.04	< 0.14	< 0.5	< 2	13	14
CS 38-1 38-43cm	0.115	0.05	0.06	0.23	0.04	< 0.08	1.10	1.16	10.0	27	319	356
CS 42-1 48-53cm	0.037	< 0.02	0.02	0.08	0.04	< 0.08	0.25	0.30	1.3	2	67	70
CS 46-1 50-60cm	0.006	< 0.02	< 0.01	< 0.04	< 0.02	0.12	0.04	0.17	< 0.5	< 2	19	20
CS 50-1 64-74cm	0.006	< 0.02	< 0.01	< 0.04	< 0.02	0.09	0.09	0.18	0.5	< 2	13	14
CS 52-1 49-54cm	0.007	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	14	15
CS 56-1 48-53cm	0.007	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	14	15
CS 42-1 85-95cm	0.131	0.03	0.09	0.25	< 0.02	< 0.08	1.61	1.68	94.5	39	565	699
CS 46-1 97-107cm	0.031	< 0.02	0.02	0.06	0.04	0.18	0.23	0.45	1.4	< 2	59	61
CS 48-1 100-105cm	0.026	< 0.02	0.02	0.05	0.05	0.38	0.20	0.63	1.0	< 2	38	39
CS 50-1 104-114cm	0.020	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	0.05	< 0.14	0.9	< 2	22	23
CS 52-1 94-98cm	0.014	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	0.09	< 0.14	2.7	< 2	50	53
REPEATS												
CS 1-1 0-10cm	0.048	0.03	0.06	0.14	< 0.02	< 0.08	0.25	< 0.14	7.9	28	262	297
CS 1-1 0-10cm REP	0.050	0.03	0.06	0.14	0.03	0.15	0.23	0.40	8.1	27	273	308
CS 17-1B 70-75 cm	0.097	0.04	0.07	0.20	0.03	0.18	1.38	1.59	14.5	25	371	410
CS 17-1B 70-75 cm REP	0.097	0.04	0.07	0.21	0.03	0.20	1.48	1.71	15.0	26	377	418
CS 25-1 23-28cm	0.007	< 0.02	< 0.01	< 0.04	0.06	< 0.08	< 0.04	< 0.14	< 0.5	< 2	18	19
CS 25-1 23-28cm REP	0.008	< 0.02	< 0.01	< 0.04	0.07	0.29	0.05	0.40	< 0.5	< 2	20	22
CS 38-1 38-43cm	0.115	0.05	0.06	0.23	0.04	< 0.08	1.10	1.16	10.0	27	319	356
CS 38-1 38-43cm REP	0.113	0.05	0.06	0.23	0.04	0.33	1.08	1.45	10.2	27	321	358
CS 52-1 49-54cm	0.007	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	14	15
CS 52-1 49-54cm REP	0.006	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	14	14
CONTROLS												
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	< 2	< 5
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.02	0.15	< 0.04	< 0.14	< 0.5	< 2	< 2	< 5
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.02	< 0.08	< 0.04	< 0.14	< 0.5	< 2	< 2	< 5
LKSD-4	0.440	0.03	0.05	0.52	0.11	0.21	0.75	1.06	38.8	46	479	563
LKSD-4	0.449	0.04	0.06	0.54	0.11	0.35	0.78	1.24	39.7	44	498	582
LKSD-4	0.435	0.03	0.05	0.52	0.12	0.31	0.73	1.16	38.1	43	477	558
Provisional Values												660 ± 86

	U	U	U	U	V	V	V	V	Y	Y	Y	Y
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM	0.25M NH2OH 0.25M HCl	1M NH2OH 25% HOAc	Aqua Regia	SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.005	0.02	0.01	0.04	0.5	2	2	5	0.01	0.04	0.02	0.07
CS 1-1 0-10cm	0.871	0.96	2.11	3.94	13.5	7	11	32	2.11	0.79	0.78	3.69
CS 5-1 0-10cm	0.022	< 0.02	0.10	0.14	1.9	< 2	< 2	< 5	0.51	0.12	0.11	0.74
CS 9-1 0-10cm	0.007	< 0.02	0.03	0.05	0.8	< 2	< 2	< 5	0.27	0.07	0.06	0.40
CS 11-1 0-10cm	0.010	< 0.02	0.04	0.06	0.7	< 2	< 2	< 5	0.36	0.11	0.08	0.55
CS 13-1 0-5cm	0.014	< 0.02	0.04	0.06	1.4	< 2	< 2	< 5	0.31	0.05	0.05	0.41
CS 17-1 0-5cm	0.005	< 0.02	0.06	0.07	0.6	< 2	< 2	< 5	0.23	0.09	0.10	0.41
CS 19-1 0-10cm	0.009	< 0.02	0.06	0.08	0.7	< 2	< 2	< 5	0.38	0.15	0.15	0.68
CS 21-1 0-10cm	0.010	< 0.02	0.06	0.09	< 0.5	< 2	< 2	< 5	0.47	0.21	0.23	0.90
CS 23-1 0-10cm	0.020	< 0.02	0.06	0.10	0.9	< 2	< 2	< 5	0.35	0.08	0.08	0.50
CS 25-1A 0-10cm	0.013	< 0.02	0.05	0.07	0.8	< 2	< 2	< 5	0.35	0.10	0.09	0.53
CS 25-1 23-28cm	0.017	0.02	0.11	0.15	1.0	< 2	< 2	< 5	0.37	0.13	0.15	0.65
CS 27-1 0-5cm	0.008	< 0.02	0.06	0.08	0.8	< 2	< 2	< 5	0.39	0.15	0.11	0.65
CS 9-1 55-61cm	0.541	0.62	1.78	2.94	6.8	< 2	2	11	3.59	1.01	0.85	5.44
CS 11-1 44-47cm	1.641	1.51	2.51	5.66	22.2	11	12	45	6.95	1.55	1.70	10.20
CS 13-1 45-49cm	0.048	0.06	0.25	0.36	8.1	3	4	15	2.16	0.69	0.71	3.55
CS 17-1B 70-75 cm	0.386	0.42	1.31	2.11	13.7	4	7	25	3.42	0.75	1.03	5.20
CS 19-1 59-64cm	0.008	< 0.02	0.07	0.08	0.8	< 2	< 2	< 5	0.20	0.05	0.06	0.31
CS 21-1 59-62cm	0.083	0.07	0.50	0.65	4.4	< 2	< 2	8	1.08	0.26	0.68	2.03
CS 25-1 58-63cm	0.064	0.06	0.34	0.47	2.4	< 2	< 2	< 5	0.57	0.14	0.16	0.87
CS 27-1 56-66cm	0.055	0.04	0.61	0.70	2.4	< 2	2	6	0.71	0.26	0.31	1.27
CS 21-1 89-94cm	0.073	0.12	0.76	0.95	11.1	4	6	21	1.17	0.38	0.42	1.98
CS 38-1 28-33cm	0.029	0.03	0.12	0.18	8.2	3	3	14	1.86	0.49	0.29	2.63
CS 42-1 0-8cm	0.008	< 0.02	0.04	0.06	1.1	< 2	< 2	< 5	0.33	0.09	0.07	0.49
CS 46-1 10-20cm	0.010	< 0.02	0.06	0.08	1.3	< 2	< 2	< 5	0.40	0.13	0.14	0.67
CS 48-1 12-18cm	0.007	< 0.02	0.05	0.06	1.4	< 2	< 2	< 5	0.33	0.14	0.11	0.58
CS 50-1 15-23cm	0.008	< 0.02	0.05	0.07	1.0	< 2	< 2	< 5	0.44	0.15	0.13	0.72
CS 52-1 6-13cm	0.009	< 0.02	0.05	0.06	1.1	< 2	< 2	< 5	0.45	0.18	0.15	0.77
CS 54-1 10-23cm	< 0.005	< 0.02	0.05	0.06	0.6	< 2	< 2	< 5	0.20	0.09	0.11	0.39
CS 56-1 13-18cm	0.008	< 0.02	0.05	0.07	1.4	< 2	< 2	< 5	0.44	0.14	0.12	0.70
CS 58-1 10-22cm	0.010	< 0.02	0.04	0.06	1.3	< 2	< 2	< 5	0.35	0.12	0.10	0.56
CS 38-1 38-43cm	0.105	0.16	0.43	0.70	10.1	4	5	19	3.86	0.89	1.00	5.75
CS 42-1 48-53cm	0.028	0.04	0.23	0.30	11.1	3	4	18	1.56	0.39	0.34	2.29
CS 46-1 50-60cm	0.006	< 0.02	0.07	0.08	1.0	< 2	< 2	< 5	0.27	0.06	0.08	0.41
CS 50-1 64-74cm	0.016	< 0.02	0.07	0.10	0.8	< 2	< 2	< 5	0.24	0.05	0.07	0.35
CS 52-1 49-54cm	0.009	< 0.02	0.09	0.11	0.9	< 2	< 2	< 5	0.26	0.07	0.08	0.40
CS 56-1 48-53cm	0.009	< 0.02	0.10	0.12	0.7	< 2	< 2	< 5	0.29	0.08	0.09	0.46
CS 42-1 85-95cm	0.532	0.28	0.85	1.66	34.7	12	13	59	3.35	0.43	0.70	4.48
CS 46-1 97-107cm	0.057	0.06	0.45	0.56	11.5	2	3	17	1.22	0.25	0.24	1.71
CS 48-1 100-105cm	0.033	0.03	0.21	0.28	5.8	< 2	< 2	9	0.99	0.20	0.21	1.39
CS 50-1 104-114cm	0.047	0.04	0.27	0.35	5.4	< 2	< 2	8	0.80	0.14	0.15	1.08
CS 52-1 94-98cm	0.031	0.03	0.19	0.25	3.1	< 2	< 2	< 5	0.50	0.10	0.10	0.70
REPEATS												
CS 1-1 0-10cm	0.871	0.96	2.11	3.94	13.5	7	11	32	2.11	0.79	0.78	3.69
CS 1-1 0-10cm REP	0.894	1.00	2.09	3.99	13.7	8	10	31	2.19	0.80	0.74	3.74
CS 17-1B 70-75 cm	0.386	0.42	1.31	2.11	13.7	4	7	25	3.42	0.75	1.03	5.20
CS 17-1B 70-75 cm REP	0.391	0.46	1.34	2.19	13.6	5	7	25	3.50	0.77	1.11	5.37
CS 25-1 23-28cm	0.017	0.02	0.11	0.15	1.0	< 2	< 2	< 5	0.37	0.13	0.15	0.65
CS 25-1 23-28cm REP	0.017	0.02	0.12	0.15	0.7	< 2	< 2	< 5	0.36	0.14	0.16	0.67
CS 38-1 38-43cm	0.105	0.16	0.43	0.70	10.1	4	5	19	3.86	0.89	1.00	5.75
CS 38-1 38-43cm REP	0.106	0.16	0.42	0.68	10.3	4	6	21	3.84	0.89	0.94	5.68
CS 52-1 49-54cm	0.009	< 0.02	0.09	0.11	0.9	< 2	< 2	< 5	0.26	0.07	0.08	0.40
CS 52-1 49-54cm REP	0.008	< 0.02	0.09	0.10	1.0	< 2	< 2	< 5	0.25	0.06	0.08	0.40
CONTROLS												
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.5	< 2	< 2	< 5	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.5	< 2	< 2	< 5	< 0.01	< 0.04	< 0.02	< 0.07
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.5	< 2	< 2	< 5	< 0.01	< 0.04	< 0.02	< 0.07
LKSD-4	12.793	4.09	10.99	27.88	18.4	7	6	31	14.56	0.82	1.31	16.68
LKSD-4	12.991	4.17	11.12	28.29	18.7	6	7	31	15.12	0.84	1.40	17.37
LKSD-4	13.251	4.39	11.03	28.67	18.4	6	7	32	14.64	0.79	1.35	16.78

Provisional Values

	Yb ICP-MS 0.25M NH2OH 0.25M HCl	Yb ICP-MS 1M NH2OH 25% HOAc	Yb ICP-MS Aqua Regia	Yb ICP-MS SUM	Zn ICP-MS 0.25M NH2OH 0.25M HCl	Zn ICP-MS 1M NH2OH 25% HOAc	Zn ICP-MS Aqua Regia	Zn ICP-MS SUM	Zr ICP-MS 0.25M NH2OH 0.25M HCl	Zr ICP-MS 1M NH2OH 25% HOAc	Zr ICP-MS Aqua Regia	Zr ICP-MS SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.005	0.02	0.01	0.04	0.5	2	1	4	0.05	0.2	0.1	0.4
CS 1-1 0-10cm	0.113	0.06	0.09	0.26	5.2	6	3	14	0.32	< 0.2	1.0	1.5
CS 5-1 0-10cm	0.032	< 0.02	0.01	0.05	55.5	8	4	67	0.13	< 0.2	1.2	1.3
CS 9-1 0-10cm	0.018	< 0.02	< 0.01	< 0.04	79.3	12	3	95	0.15	< 0.2	0.4	0.5
CS 11-1 0-10cm	0.021	< 0.02	0.01	0.04	56.6	8	2	68	0.07	< 0.2	0.5	0.5
CS 13-1 0-5cm	0.020	< 0.02	< 0.01	< 0.04	56.9	5	2	64	0.07	< 0.2	0.5	0.6
CS 17-1 0-5cm	0.011	< 0.02	0.01	< 0.04	25.6	4	2	31	< 0.05	< 0.2	0.2	< 0.4
CS 19-1 0-10cm	0.022	< 0.02	0.02	0.05	67.9	9	4	81	0.07	< 0.2	0.7	0.9
CS 21-1 0-10cm	0.024	< 0.02	0.03	0.07	99.3	9	2	111	0.15	0.3	0.9	1.3
CS 23-1 0-10cm	0.023	< 0.02	0.01	0.04	120.5	15	5	140	0.06	< 0.2	0.4	0.6
CS 25-1A 0-10cm	0.019	< 0.02	0.01	0.04	54.7	8	3	66	0.07	< 0.2	0.4	0.4
CS 25-1 23-28cm	0.022	< 0.02	0.03	0.06	8.0	< 2	< 1	10	0.07	< 0.2	0.6	0.6
CS 27-1 0-5cm	0.022	< 0.02	0.02	0.05	56.6	7	1	65	0.19	< 0.2	1.2	1.4
CS 9-1 55-61cm	0.205	0.08	0.13	0.41	10.3	< 2	2	14	0.26	0.5	1.7	2.5
CS 11-1 44-47cm	0.433	0.14	0.19	0.76	21.3	17	7	46	0.50	1.3	3.3	5.1
CS 13-1 45-49cm	0.124	0.05	0.10	0.27	20.1	4	2	26	0.17	0.4	1.6	2.1
CS 17-1B 70-75 cm	0.234	0.07	0.12	0.42	8.9	7	4	20	0.23	0.7	2.2	3.1
CS 19-1 59-64cm	0.012	< 0.02	< 0.01	< 0.04	10.1	< 2	2	14	< 0.05	< 0.2	0.1	< 0.4
CS 21-1 59-62cm	0.064	< 0.02	0.06	0.15	19.0	2	1	23	< 0.05	0.2	0.5	0.7
CS 25-1 58-63cm	0.040	< 0.02	0.03	0.08	1.6	< 2	< 1	< 4	< 0.05	< 0.2	0.4	0.4
CS 27-1 56-66cm	0.041	0.02	0.05	0.11	18.5	3	1	22	0.12	< 0.2	1.3	1.4
CS 21-1 89-94cm	0.066	0.03	0.07	0.17	14.8	3	2	19	< 0.05	0.2	1.1	1.4
CS 38-1 28-33cm	0.108	0.04	0.04	0.19	16.8	3	2	21	0.24	< 0.2	1.3	1.6
CS 42-1 0-8cm	0.021	< 0.02	0.01	0.04	52.7	8	3	64	0.09	< 0.2	0.4	0.4
CS 46-1 10-20cm	0.023	< 0.02	0.02	0.05	49.3	6	3	59	0.09	< 0.2	0.6	0.7
CS 48-1 12-18cm	0.019	< 0.02	0.02	0.04	59.9	7	4	71	0.07	< 0.2	0.4	0.6
CS 50-1 15-23cm	0.025	< 0.02	0.02	0.05	52.7	8	4	64	0.06	< 0.2	0.5	0.7
CS 52-1 6-13cm	0.027	< 0.02	0.02	0.06	54.6	9	4	68	0.06	< 0.2	0.4	0.4
CS 54-1 10-23cm	0.012	< 0.02	0.01	< 0.04	21.1	3	1	26	0.15	< 0.2	0.8	1.0
CS 56-1 13-18cm	0.028	< 0.02	0.02	0.06	85.3	10	3	99	0.13	< 0.2	0.5	0.6
CS 58-1 10-22cm	0.021	< 0.02	0.01	0.04	107.6	21	4	132	0.07	< 0.2	0.3	< 0.4
CS 38-1 38-43cm	0.252	0.09	0.11	0.44	14.6	6	4	25	0.28	0.6	2.3	3.1
CS 42-1 48-53cm	0.099	0.03	0.06	0.19	2.9	< 2	1	5	0.11	< 0.2	1.5	1.8
CS 46-1 50-60cm	0.016	< 0.02	0.01	< 0.04	5.2	< 2	1	8	< 0.05	< 0.2	0.3	0.4
CS 50-1 64-74cm	0.014	< 0.02	< 0.01	< 0.04	4.1	< 2	1	7	< 0.05	< 0.2	0.2	< 0.4
CS 52-1 49-54cm	0.016	< 0.02	0.01	0.04	3.7	< 2	1	6	< 0.05	< 0.2	0.2	< 0.4
CS 56-1 48-53cm	0.018	< 0.02	0.02	0.04	3.4	7	1	11	< 0.05	< 0.2	0.3	< 0.4
CS 42-1 85-95cm	0.206	0.04	0.04	0.28	28.5	7	7	42	0.15	0.4	1.7	2.2
CS 46-1 97-107cm	0.079	< 0.02	0.04	0.14	2.7	< 2	1	5	0.05	< 0.2	1.0	1.2
CS 48-1 100-105cm	0.060	< 0.02	0.03	0.11	2.6	< 2	1	5	< 0.05	0.3	0.8	1.1
CS 50-1 104-114cm	0.051	< 0.02	0.02	0.08	2.9	< 2	1	5	< 0.05	< 0.2	0.4	0.4
CS 52-1 94-98cm	0.039	< 0.02	0.02	0.07	3.3	< 2	1	6	< 0.05	< 0.2	0.5	0.5
REPEATS												
CS 1-1 0-10cm	0.113	0.06	0.09	0.26	5.2	6	3	14	0.32	< 0.2	1.0	1.5
CS 1-1 0-10cm REP	0.112	0.06	0.09	0.26	5.5	6	3	14	0.35	0.4	0.9	1.6
CS 17-1B 70-75 cm	0.234	0.07	0.12	0.42	8.9	7	4	20	0.23	0.7	2.2	3.1
CS 17-1B 70-75 cm REP	0.230	0.07	0.13	0.43	9.0	8	4	21	0.22	0.7	2.3	3.2
CS 25-1 23-28cm	0.022	< 0.02	0.03	0.06	8.0	< 2	< 1	10	0.07	< 0.2	0.6	0.6
CS 25-1 23-28cm REP	0.021	< 0.02	0.02	0.05	7.5	< 2	1	10	0.07	0.2	0.6	0.9
CS 38-1 38-43cm	0.252	0.09	0.11	0.44	14.6	6	4	25	0.28	0.6	2.3	3.1
CS 38-1 38-43cm REP	0.249	0.09	0.10	0.44	14.2	6	4	24	0.25	0.7	2.1	3.0
CS 52-1 49-54cm	0.016	< 0.02	0.01	0.04	3.7	< 2	1	6	< 0.05	< 0.2	0.2	< 0.4
CS 52-1 49-54cm REP	0.018	< 0.02	0.01	0.04	3.6	< 2	1	6	< 0.05	< 0.2	0.2	< 0.4
CONTROLS												
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.5	< 2	< 1	< 4	< 0.05	< 0.2	< 0.1	< 0.4
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.5	< 2	< 1	< 4	< 0.05	< 0.2	< 0.1	< 0.4
BLANK	< 0.005	< 0.02	< 0.01	< 0.04	< 0.5	< 2	< 1	< 4	< 0.05	< 0.2	< 0.1	< 0.4
LKSD-4	1.262	0.10	0.15	1.51	139.3	24	15	178	0.33	0.4	0.2	0.9
LKSD-4	1.288	0.11	0.15	1.55	145.0	24	17	186	0.33	0.5	0.2	1.0
LKSD-4	1.264	0.10	0.15	1.52	140.5	24	16	181	0.34	0.4	0.2	0.9
Provisional Values								174 ± 7				

Appendix 6: Pyrophosphate Leach Results

	Ag	Ag	Ag	Ag	Al	Al	Al	Al	As	As	As	As	B	B	B	B
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.02	0.02	0.01	0.05	9	9	20	38	0.4	0.4	0.2	1	2	2	1	5
CS 1-1 0-10cm	< 0.02	< 0.02	0.04	< 0.05	2579	717	4244	7540	< 0.4	< 0.4	< 0.2	< 1	3	< 2	10	15
CS 5-1 0-10cm	< 0.02	< 0.02	0.05	0.05	188	25	983	1196	0.8	< 0.4	1.8	3	< 2	< 2	9	8
CS 9-1 0-10cm	< 0.02	< 0.02	0.02	< 0.05	58	13	392	463	1.5	0.5	1.4	3	< 2	< 2	8	7
CS 9-1 55-61cm	< 0.02	< 0.02	0.04	< 0.05	2237	357	1480	4073	0.6	< 0.4	< 0.2	< 1	< 2	< 2	8	9
CS 11-1 0-10cm	< 0.02	< 0.02	0.02	< 0.05	192	49	536	777	0.9	< 0.4	2.6	4	< 2	< 2	7	7
CS 11-1 44-47cm	< 0.02	< 0.02	0.08	0.09	5097	1534	12028	18659	0.7	< 0.4	0.4	1	< 2	< 2	7	9
CS 13-1 0-5cm	< 0.02	< 0.02	0.04	< 0.05	179	61	402	642	5.0	0.9	2.0	8	< 2	< 2	6	< 5
CS 13-1 45-49cm	< 0.02	< 0.02	0.06	0.06	2195	514	2402	5111	0.8	< 0.4	0.2	1	< 2	< 2	8	8
CS 17-1 0-5cm	< 0.02	< 0.02	0.02	< 0.05	171	52	436	658	0.6	< 0.4	1.0	2	< 2	< 2	9	8
CS 17-1B 70-75 cm	< 0.02	< 0.02	0.08	0.08	3943	1031	5611	10585	0.5	< 0.4	0.3	< 1	< 2	< 2	4	< 5
CS 19-1 0-10cm	< 0.02	< 0.02	0.03	< 0.05	184	72	771	1028	2.9	0.6	3.1	7	< 2	< 2	10	8
CS 19-1 59-64cm	< 0.02	< 0.02	0.02	< 0.05	271	61	281	613	< 0.4	< 0.4	0.4	< 1	< 2	< 2	4	< 5
CS 21-1 0-10cm	< 0.02	< 0.02	0.01	< 0.05	263	93	803	1159	2.1	0.4	2.7	5	< 2	< 2	12	13
CS 21-1 59-62cm	< 0.02	< 0.02	0.02	< 0.05	759	148	1630	2536	< 0.4	< 0.4	0.4	< 1	< 2	< 2	5	< 5
CS 21-1 89-94cm	< 0.02	< 0.02	0.05	< 0.05	3010	538	1913	5460	< 0.4	< 0.4	0.3	< 1	< 2	< 2	6	< 5
CS 23-1 0-10cm	< 0.02	< 0.02	0.02	< 0.05	147	60	415	622	6.2	1.4	3.0	11	< 2	< 2	10	8
CS 25-1A 0-10cm	< 0.02	< 0.02	0.02	< 0.05	85	31	575	691	1.6	< 0.4	1.2	3	< 2	< 2	7	7
CS 25-1 23-28cm	< 0.02	< 0.02	0.02	< 0.05	371	92	378	841	0.9	< 0.4	1.0	2	< 2	< 2	9	8
CS 25-1 58-63cm	< 0.02	< 0.02	0.05	< 0.05	692	132	419	1242	< 0.4	< 0.4	0.8	1	< 2	< 2	9	8
CS 27-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	88	18	757	863	0.8	< 0.4	2.5	3	< 2	< 2	11	11
CS 27-1 56-66cm	< 0.02	< 0.02	0.05	0.05	598	153	1139	1890	< 0.4	< 0.4	0.4	< 1	< 2	< 2	12	12
CS 38-1 28-33cm	< 0.02	< 0.02	0.05	0.05	1420	366	1516	3302	1.7	0.4	1.1	3	< 2	< 2	8	8
CS 38-1 38-43cm	< 0.02	< 0.02	0.07	0.07	3091	818	9471	13380	0.8	< 0.4	0.9	2	< 2	< 2	8	8
CS 42-1 0-8cm	< 0.02	< 0.02	0.03	< 0.05	109	29	550	688	1.4	< 0.4	2.4	4	< 2	< 2	8	7
CS 42-1 48-53cm	< 0.02	< 0.02	0.08	0.07	1522	276	868	2666	< 0.4	< 0.4	0.5	< 1	< 2	< 2	3	< 5
CS 42-1 85-95cm	< 0.02	< 0.02	0.12	0.12	1625	389	12961	14975	< 0.4	< 0.4	1.6	2	< 2	< 2	8	7
CS 46-1 10-20cm	< 0.02	< 0.02	0.03	< 0.05	209	68	1123	1401	2.2	< 0.4	3.5	6	< 2	< 2	10	8
CS 46-1 50-60cm	< 0.02	< 0.02	0.03	< 0.05	434	103	337	874	< 0.4	< 0.4	1.1	2	< 2	< 2	4	< 5
CS 46-1 97-107cm	< 0.02	< 0.02	0.06	0.06	1502	221	611	2333	0.5	< 0.4	1.0	2	< 2	< 2	1	< 5
CS 48-1 12-18cm	< 0.02	< 0.02	0.02	< 0.05	83	38	604	725	1.0	< 0.4	2.4	4	< 2	< 2	9	6
CS 48-1 100-105cm	< 0.02	< 0.02	0.07	0.07	1011	205	457	1673	0.8	< 0.4	0.8	2	< 2	< 2	2	< 5
CS 50-1 15-23cm	< 0.02	< 0.02	0.02	< 0.05	145	41	969	1155	1.2	< 0.4	2.3	4	< 2	< 2	9	9
CS 50-1 64-74cm	< 0.02	< 0.02	0.02	< 0.05	276	62	280	618	< 0.4	< 0.4	0.9	1	< 2	< 2	4	< 5
CS 50-1 104-114cm	< 0.02	< 0.02	0.07	0.07	693	116	310	1119	0.6	< 0.4	0.7	1	< 2	< 2	2	< 5
CS 52-1 6-13cm	< 0.02	< 0.02	0.04	< 0.05	140	37	867	1044	0.9	< 0.4	2.7	4	< 2	< 2	11	10
CS 52-1 49-54cm	< 0.02	< 0.02	0.02	< 0.05	333	76	287	695	< 0.4	< 0.4	0.6	1	< 2	< 2	4	< 5
CS 52-1 94-98cm	< 0.02	< 0.02	0.06	0.06	788	157	723	1668	0.7	< 0.4	0.6	1	< 2	< 2	4	< 5
CS 54-1 10-23cm	< 0.02	< 0.02	0.02	< 0.05	113	20	545	678	0.6	< 0.4	1.2	2	< 2	< 2	10	9
CS 56-1 13-18cm	< 0.02	< 0.02	0.04	< 0.05	145	27	1026	1198	1.6	< 0.4	2.7	5	< 2	< 2	10	10
CS 56-1 48-53cm	< 0.02	< 0.02	0.03	< 0.05	291	58	434	782	< 0.4	< 0.4	0.4	< 1	< 2	< 2	6	6
CS 58-1 10-22cm	< 0.02	< 0.02	0.03	< 0.05	100	15	592	707	1.2	< 0.4	2.8	4	< 2	< 2	8	8
REPEATS																
CS 1-1 0-10cm	< 0.02	< 0.02	0.04	< 0.05	2579	717	4244	7540	< 0.4	< 0.4	< 0.2	< 1	3	< 2	10	15
CS 1-1 0-10cm REP	< 0.02	< 0.02	0.03	< 0.05	2517	703	4388	7607	< 0.4	< 0.4	0.4	< 1	2	< 2	10	13
CS 17-1B 70-75 cm	< 0.02	< 0.02	0.08	0.08	3943	1031	5611	10585	0.5	< 0.4	0.3	< 1	< 2	< 2	4	< 5
CS 17-1B 70-75 cm	< 0.02	< 0.02	0.08	0.08	3874	1024	5921	10819	0.6	< 0.4	0.5	1	< 2	< 2	4	< 5
CS 25-1 23-28cm	< 0.02	< 0.02	0.02	< 0.05	371	92	378	841	0.9	< 0.4	1.0	2	< 2	< 2	9	8
CS 25-1 23-28cm REP	< 0.02	< 0.02	0.02	< 0.05	370	90	388	849	0.6	< 0.4	0.7	2	< 2	< 2	9	8
CS 38-1 38-43cm	< 0.02	< 0.02	0.07	0.07	3091	818	9471	13380	0.8	< 0.4	0.9	2	< 2	< 2	8	8
CS 38-1 38-43cm REP	< 0.02	< 0.02	0.07	0.07	3059	819	9226	13104	0.7	< 0.4	0.6	2	< 2	< 2	8	7
CS 52-1 49-54cm	< 0.02	< 0.02	0.02	< 0.05	333	76	287	695	< 0.4	< 0.4	0.6	1	< 2	< 2	4	< 5
CS 52-1 49-54cm REP	< 0.02	< 0.02	0.02	< 0.05	328	70	270	668	< 0.4	< 0.4	0.6	1	< 2	< 2	4	< 5
CONTROLS																
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 9	< 9	< 20	< 38	< 0.4	< 0.4	< 0.2	< 1	< 2	< 2	< 1	< 5
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 9	< 9	< 20	< 38	< 0.4	< 0.4	< 0.2	< 1	< 2	< 2	< 1	< 5
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 9	< 9	< 20	< 38	< 0.4	< 0.4	< 0.2	< 1	< 2	< 2	< 1	< 5
LKSD-4	0.02	< 0.02	0.18	0.21	2747	440	9081	12268	5.4	1.6	6.6	14	< 2	< 2	8	8
LKSD-4	0.02	< 0.02	0.19	0.22	2791	460	9058	12309	5.1	1.7	6.7	13	< 2	< 2	8	8
LKSD-4	< 0.02	< 0.02	0.18	0.21	2813	433	8916	12163	4.9	1.7	7.0	14	< 2	< 2	7	7
Provisional Values				0.2 ± 0.1				1.44 ± 0.19 %				13 ± 3				

	Ba	Ba	Ba	Ba	Be	Be	Be	Be	Bi	Bi	Bi	Bi	Br	Br	Br	Br
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.7	0.7	0.4	1.8	0.02	0.02	0.01	0.05	0.07	0.07	0.04	0.18	23	23	50	96
CS 1-1 0-10cm	133.8	61.8	78.8	274.4	0.13	0.03	0.11	0.27	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 5-1 0-10cm	24.6	6.1	11.0	41.6	< 0.02	< 0.02	0.01	< 0.05	< 0.07	< 0.07	0.14	< 0.18	< 23	< 23	< 50	< 96
CS 9-1 0-10cm	42.4	12.6	18.6	73.6	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	0.07	< 0.18	< 23	< 23	< 50	< 96
CS 9-1 55-61cm	61.2	15.4	19.1	95.6	0.14	< 0.02	0.03	0.18	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 11-1 0-10cm	30.9	10.4	14.5	55.7	0.02	< 0.02	0.02	0.05	< 0.07	< 0.07	0.06	< 0.18	< 23	< 23	< 50	< 96
CS 11-1 44-47cm	117.5	19.8	52.4	189.6	0.28	0.06	0.24	0.58	< 0.07	< 0.07	0.04	< 0.18	< 23	< 23	< 50	< 96
CS 13-1 0-5cm	31.9	7.6	8.7	48.2	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	0.05	< 0.18	< 23	< 23	< 50	< 96
CS 13-1 45-49cm	44.5	17.0	25.1	86.6	0.11	0.03	0.05	0.20	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 17-1 0-5cm	16.2	4.0	9.5	29.6	0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 17-1B 70-75 cm	68.1	15.1	30.4	113.6	0.24	0.04	0.10	0.38	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 19-1 0-10cm	29.6	11.1	23.7	64.3	< 0.02	< 0.02	0.03	< 0.05	< 0.07	< 0.07	0.10	< 0.18	< 23	< 23	< 50	< 96
CS 19-1 59-64cm	20.2	4.9	7.0	32.1	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 21-1 0-10cm	41.1	18.5	30.6	90.2	< 0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	0.09	< 0.18	< 23	< 23	< 50	< 96
CS 21-1 59-62cm	18.9	4.0	8.1	31.0	0.05	< 0.02	0.05	0.10	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 21-1 89-94cm	33.5	10.6	17.9	62.0	0.13	0.04	0.08	0.25	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 23-1 0-10cm	61.7	24.1	42.6	128.4	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	0.16	< 0.18	< 23	< 23	< 50	< 96
CS 25-1A 0-10cm	41.5	12.3	17.0	70.7	0.02	< 0.02	0.01	< 0.05	< 0.07	< 0.07	0.09	< 0.18	< 23	< 23	< 50	< 96
CS 25-1 23-28cm	29.6	10.8	20.3	60.8	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 25-1 58-63cm	37.7	11.8	18.6	68.1	0.03	< 0.02	0.02	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 27-1 0-5cm	22.1	9.7	18.4	50.2	0.04	< 0.02	0.02	0.07	< 0.07	< 0.07	0.07	< 0.18	< 23	< 23	< 50	< 96
CS 27-1 56-66cm	39.3	16.5	30.4	86.1	0.03	< 0.02	0.04	0.07	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 38-1 28-33cm	25.3	7.3	13.2	45.8	0.07	< 0.02	0.03	0.11	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 38-1 38-43cm	56.2	13.8	32.0	101.9	0.20	0.06	0.13	0.40	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 42-1 0-8cm	23.7	6.0	11.3	41.0	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	0.08	< 0.18	< 23	< 23	< 50	< 96
CS 42-1 48-53cm	37.0	10.3	14.1	61.4	0.08	< 0.02	0.03	0.13	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 42-1 85-95cm	41.4	9.9	21.5	72.8	0.13	0.04	0.19	0.36	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 46-1 10-20cm	20.0	6.0	14.7	40.7	< 0.02	< 0.02	0.02	0.05	< 0.07	< 0.07	0.13	< 0.18	< 23	< 23	< 50	< 96
CS 46-1 50-60cm	15.3	4.6	7.9	27.8	< 0.02	< 0.02	0.03	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 46-1 97-107cm	25.5	7.5	9.9	42.8	0.06	< 0.02	0.04	0.12	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 48-1 12-18cm	17.4	5.7	12.3	35.4	< 0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	0.09	< 0.18	< 23	< 23	< 50	< 96
CS 48-1 100-105cm	28.3	8.0	12.4	48.7	0.04	< 0.02	0.03	0.08	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 50-1 15-23cm	20.2	6.1	14.1	40.4	< 0.02	< 0.02	0.03	< 0.05	< 0.07	< 0.07	0.15	< 0.18	< 23	< 23	< 50	< 96
CS 50-1 64-74cm	18.9	5.0	7.8	31.7	< 0.02	< 0.02	0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 50-1 104-114cm	23.6	6.6	8.5	38.6	0.06	< 0.02	0.02	0.09	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 52-1 6-13cm	16.3	4.5	11.3	32.0	< 0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	0.11	< 0.18	< 23	< 23	< 50	< 96
CS 52-1 49-54cm	25.0	7.0	9.8	41.8	0.02	< 0.02	0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 52-1 94-98cm	28.3	7.5	11.2	46.9	0.03	< 0.02	0.04	0.07	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 54-1 10-23cm	15.7	4.0	8.7	28.3	0.04	< 0.02	0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 56-1 13-18cm	20.2	4.6	11.0	35.8	0.03	< 0.02	0.02	0.06	< 0.07	< 0.07	0.11	< 0.18	< 23	< 23	< 50	< 96
CS 56-1 48-53cm	21.9	5.6	8.5	36.0	< 0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 58-1 10-22cm	18.5	4.3	9.2	32.0	< 0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	0.08	< 0.18	< 23	< 23	< 50	< 96
REPEATS																
CS 1-1 0-10cm	133.8	61.8	78.8	274.4	0.13	0.03	0.11	0.27	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 1-1 0-10cm REP	133.3	62.2	79.4	274.9	0.09	0.02	0.09	0.20	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 17-1B 70-75 cm	68.1	15.1	30.4	113.6	0.24	0.04	0.10	0.38	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 17-1B 70-75 cm	67.4	15.3	31.5	114.2	0.23	0.04	0.13	0.39	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 25-1 23-28cm	29.6	10.8	20.3	60.8	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 25-1 23-28cm REP	28.1	10.5	21.4	60.0	0.02	< 0.02	0.02	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 38-1 38-43cm	56.2	13.8	32.0	101.9	0.20	0.06	0.13	0.40	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 38-1 38-43cm REP	55.7	13.4	31.0	100.1	0.19	0.06	0.14	0.38	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 52-1 49-54cm	25.0	7.0	9.8	41.8	0.02	< 0.02	0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CS 52-1 49-54cm REP	24.5	6.8	9.8	41.0	0.03	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
CONTROLS																
BLANK	< 0.7	< 0.7	< 0.4	< 1.8	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
BLANK	< 0.7	< 0.7	< 0.4	< 1.8	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
BLANK	< 0.7	< 0.7	< 0.4	< 1.8	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 23	< 23	< 50	< 96
LKSD-4	12.3	27.7	86.8	126.8	0.22	0.03	0.18	0.43	< 0.07	< 0.07	0.30	< 0.18	< 23	< 23	< 50	< 96
LKSD-4	11.7	26.8	89.2	127.7	0.18	< 0.02	0.18	0.38	< 0.07	< 0.07	0.29	< 0.18	< 23	< 23	< 50	< 96
LKSD-4	12.2	28.5	84.7	125.4	0.24	0.03	0.20	0.46	< 0.07	< 0.07	0.28	< 0.18	< 23	< 23	< 50	< 96
Provisional Values				135 ± 4												

	Ca	Ca	Ca	Ca	Cd	Cd	Cd	Cd	Ce	Ce	Ce	Ce	Cl	Cl	Cl	Cl
	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	9	9	20	38	0.07	0.07	0.04	0.18	0.04	0.04	0.02	0.1	45	45	NA	NA
CS 1-1 0-10cm	6193	2231	36777	45200	< 0.07	< 0.07	0.09	< 0.18	4.36	1.01	7.84	13.2	81	< 45	NA	NA
CS 5-1 0-10cm	14440	1083	383	15905	0.26	0.08	0.28	0.62	1.35	0.19	0.94	2.5	< 45	< 45	NA	NA
CS 9-1 0-10cm	17075	953	2188	20215	0.32	< 0.07	0.17	0.55	0.62	0.10	0.30	1.0	76	< 45	NA	NA
CS 9-1 55-61cm	19171	1689	3461	24321	0.09	< 0.07	< 0.04	< 0.18	16.15	1.61	3.54	21.3	< 45	< 45	NA	NA
CS 11-1 0-10cm	16945	1231	1983	20159	0.41	< 0.07	0.05	0.50	0.68	0.10	0.41	1.2	< 45	< 45	NA	NA
CS 11-1 44-47cm	21008	604	500	22111	0.10	< 0.07	< 0.04	< 0.18	35.41	2.21	18.88	56.5	< 45	< 45	NA	NA
CS 13-1 0-5cm	12332	962	187	13481	0.14	0.10	0.59	0.83	0.73	0.10	0.42	1.2	< 45	< 45	NA	NA
CS 13-1 45-49cm	19166	1548	2804	23517	0.17	< 0.07	0.05	0.24	9.45	1.22	5.19	15.9	< 45	< 45	NA	NA
CS 17-1 0-5cm	18148	1239	2007	21393	< 0.07	< 0.07	< 0.04	< 0.18	0.65	0.07	0.32	1.1	< 45	< 45	NA	NA
CS 17-1B 70-75 cm	23105	930	724	24760	0.22	< 0.07	0.07	0.31	16.06	1.55	10.89	28.5	< 45	< 45	NA	NA
CS 19-1 0-10cm	15345	1378	2837	19559	0.07	< 0.07	0.34	0.47	0.64	0.09	0.70	1.4	116	< 45	NA	NA
CS 19-1 59-64cm	18199	971	1045	20216	0.09	< 0.07	< 0.04	< 0.18	0.59	0.05	0.33	1.0	< 45	< 45	NA	NA
CS 21-1 0-10cm	11118	2015	9423	22556	0.09	0.09	0.71	0.90	0.93	0.16	0.80	1.9	55	< 45	NA	NA
CS 21-1 59-62cm	15060	482	728	16269	0.12	< 0.07	0.04	< 0.18	3.94	0.29	5.14	9.4	< 45	< 45	NA	NA
CS 21-1 89-94cm	20930	1396	3054	25380	0.34	< 0.07	0.05	0.42	5.08	0.57	2.01	7.7	< 45	< 45	NA	NA
CS 23-1 0-10cm	17584	1164	2520	21267	0.16	0.32	1.64	2.12	1.26	0.20	0.46	1.9	184	< 45	NA	NA
CS 25-1A 0-10cm	15464	1234	2267	18964	0.54	0.08	0.15	0.77	0.82	0.12	0.45	1.4	93	< 45	NA	NA
CS 25-1 23-28cm	14210	1792	5986	21988	< 0.07	< 0.07	0.15	0.22	0.74	0.09	0.41	1.2	63	< 45	NA	NA
CS 25-1 58-63cm	20476	1587	3681	25744	< 0.07	< 0.07	< 0.04	< 0.18	1.49	0.16	0.60	2.3	< 45	< 45	NA	NA
CS 27-1 0-5cm	12578	1715	11320	25613	0.12	< 0.07	0.37	0.55	0.79	0.15	0.56	1.5	112	< 45	NA	NA
CS 27-1 56-66cm	14713	1832	20954	37498	0.12	< 0.07	0.10	0.24	1.94	0.30	1.24	3.5	66	< 45	NA	NA
CS 38-1 28-33cm	20647	1258	1547	23452	0.15	< 0.07	0.06	0.23	7.15	0.84	2.25	10.2	< 45	< 45	NA	NA
CS 38-1 38-43cm	20581	1015	723	22319	< 0.07	< 0.07	0.09	< 0.18	14.18	1.62	12.76	28.6	< 45	< 45	NA	NA
CS 42-1 0-8cm	18008	1143	2110	21260	0.27	0.08	0.31	0.66	0.89	0.12	0.36	1.4	69	< 45	NA	NA
CS 42-1 48-53cm	21357	1338	2082	24777	< 0.07	< 0.07	< 0.04	< 0.18	4.62	0.49	1.62	6.7	< 45	< 45	NA	NA
CS 42-1 85-95cm	12489	534	760	13783	< 0.07	< 0.07	< 0.04	< 0.18	10.21	0.84	15.76	26.8	< 45	< 45	NA	NA
CS 46-1 10-20cm	19246	1285	1922	22454	0.18	0.10	0.58	0.85	1.07	0.11	1.11	2.3	177	< 45	NA	NA
CS 46-1 50-60cm	19327	1122	1879	22328	< 0.07	< 0.07	< 0.04	< 0.18	0.66	0.09	0.40	1.1	< 45	< 45	NA	NA
CS 46-1 97-107cm	21740	1038	1795	24572	0.07	< 0.07	< 0.04	< 0.18	3.75	0.37	1.21	5.3	< 45	< 45	NA	NA
CS 48-1 12-18cm	19622	1144	1949	22715	0.38	0.08	0.35	0.81	0.68	0.12	0.45	1.3	184	< 45	NA	NA
CS 48-1 100-105cm	21629	1282	1933	24844	< 0.07	< 0.07	< 0.04	< 0.18	3.17	0.30	0.84	4.3	< 45	< 45	NA	NA
CS 50-1 15-23cm	18128	1292	2530	21949	0.23	0.13	0.66	1.02	1.05	0.13	0.86	2.0	48	< 45	NA	NA
CS 50-1 64-74cm	20391	915	1887	23193	< 0.07	< 0.07	< 0.04	< 0.18	0.67	0.06	0.26	1.0	< 45	< 45	NA	NA
CS 50-1 104-114cm	20400	1162	1393	22955	< 0.07	< 0.07	< 0.04	< 0.18	2.44	0.23	0.64	3.3	< 45	< 45	NA	NA
CS 52-1 6-13cm	17685	1148	2535	21368	0.17	0.12	0.60	0.88	0.79	0.12	0.58	1.5	47	< 45	NA	NA
CS 52-1 49-54cm	18143	1154	2072	21370	< 0.07	< 0.07	< 0.04	< 0.18	0.59	0.05	0.29	0.9	< 45	< 45	NA	NA
CS 52-1 94-98cm	20273	1210	1124	22607	0.09	< 0.07	0.05	< 0.18	1.61	0.17	0.91	2.7	< 45	< 45	NA	NA
CS 54-1 10-23cm	14111	1317	2405	17833	< 0.07	< 0.07	0.09	< 0.18	0.50	0.05	0.39	1.0	56	< 45	NA	NA
CS 56-1 13-18cm	18969	967	1929	21864	0.21	0.08	1.29	1.58	1.14	0.14	0.70	2.0	87	< 45	NA	NA
CS 56-1 48-53cm	17581	1239	2193	21014	< 0.07	< 0.07	< 0.04	< 0.18	0.73	0.07	0.31	1.1	< 45	< 45	NA	NA
CS 58-1 10-22cm	16132	997	1309	18438	0.34	< 0.07	0.59	0.99	0.64	0.11	0.37	1.1	239	< 45	NA	NA
REPEATS																
CS 1-1 0-10cm	6193	2231	36777	45200	< 0.07	< 0.07	0.09	< 0.18	4.36	1.01	7.84	13.2	81	< 45	NA	NA
CS 1-1 0-10cm REP	6827	2194	36195	45216	< 0.07	< 0.07	0.08	< 0.18	4.47	1.02	8.24	13.7	71	< 45	NA	NA
CS 17-1B 70-75 cm	23105	930	724	24760	0.22	< 0.07	0.07	0.31	16.06	1.55	10.89	28.5	< 45	< 45	NA	NA
CS 17-1B 70-75 cm	23100	951	775	24827	0.22	< 0.07	0.07	0.30	16.24	1.55	11.20	29.0	< 45	< 45	NA	NA
CS 25-1 23-28cm	14210	1792	5986	21988	< 0.07	< 0.07	0.15	0.22	0.74	0.09	0.41	1.2	63	< 45	NA	NA
CS 25-1 23-28cm REP	14495	1723	5707	21925	< 0.07	< 0.07	0.14	0.22	0.69	0.09	0.43	1.2	49	< 45	NA	NA
CS 38-1 38-43cm	20581	1015	723	22319	< 0.07	< 0.07	0.09	< 0.18	14.18	1.62	12.76	28.6	< 45	< 45	NA	NA
CS 38-1 38-43cm REP	20656	1010	653	22320	< 0.07	< 0.07	0.08	0.18	14.03	1.56	12.50	28.1	< 45	< 45	NA	NA
CS 52-1 49-54cm	18143	1154	2072	21370	< 0.07	< 0.07	< 0.04	< 0.18	0.59	0.05	0.29	0.9	< 45	< 45	NA	NA
CS 52-1 49-54cm REP	16934	1225	2008	20167	< 0.07	< 0.07	< 0.04	< 0.18	0.54	0.05	0.26	0.9	< 45	< 45	NA	NA
CONTROLS																
BLANK	< 9	< 9	< 20	< 38	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.1	< 45	< 45	NA	NA
BLANK	< 9	< 9	< 20	< 38	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.1	< 45	< 45	NA	NA
BLANK	< 9	< 9	< 20	< 38	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.1	< 45	< 45	NA	NA
LKSD-4	7099	220	1036	8355	0.72	0.07	1.11	1.90	25.65	2.39	11.12	39.2	< 45	< 45	NA	NA
LKSD-4	7189	261	1054	8504	0.70	0.08	1.13	1.90	25.15	2.48	11.32	38.9	< 45	< 45	NA	NA
LKSD-4	7292	215	1024	8531	0.70	0.08	1.10	1.88	25.69	2.38	10.73	38.8	< 45	< 45	NA	NA
Provisional Values				0.89 ± 0.05%				1.9 ± 0.2								

	Co	Co	Co	Co	Cr	Cr	Cr	Cr	Cs	Cs	Cs	Cs	Cu	Cu	Cu	Cu
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.2	0.2	0.1	0.5	0.5	0.5	1	2	0.04	0.04	0.02	0.1	0.4	0.4	0.2	1
CS 1-1 0-10cm	4.3	0.8	3.6	8.7	3.0	1.7	22	26	< 0.04	< 0.04	0.40	0.4	6.1	2.4	13.1	22
CS 5-1 0-10cm	0.9	< 0.2	0.7	1.7	< 0.5	< 0.5	2	< 2	< 0.04	< 0.04	0.24	0.3	1.1	< 0.4	7.2	8
CS 9-1 0-10cm	2.5	0.5	2.4	5.5	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.07	< 0.1	1.0	< 0.4	6.4	7
CS 9-1 55-61cm	1.8	0.9	1.3	4.1	3.4	0.9	3	7	< 0.04	< 0.04	0.25	0.3	8.1	1.4	9.3	19
CS 11-1 0-10cm	1.7	0.3	1.1	3.1	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.08	< 0.1	0.9	< 0.4	5.2	6
CS 11-1 44-47cm	1.2	0.8	5.0	7.0	11.7	3.0	35	50	0.09	0.10	1.31	1.5	20.5	2.8	18.1	41
CS 13-1 0-5cm	3.1	0.4	1.0	4.6	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.09	< 0.1	1.2	0.6	4.5	6
CS 13-1 45-49cm	2.6	1.0	1.8	5.4	1.6	0.9	6	8	< 0.04	< 0.04	0.34	0.4	5.0	1.7	11.8	18
CS 17-1 0-5cm	0.8	< 0.2	0.6	1.5	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.03	< 0.1	< 0.4	< 0.4	5.1	5
CS 17-1B 70-75 cm	4.2	0.7	3.0	7.9	5.8	2.4	39	48	< 0.04	0.05	0.71	0.8	5.3	1.4	12.5	19
CS 19-1 0-10cm	1.9	0.4	1.3	3.6	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.40	0.4	0.8	0.4	6.1	7
CS 19-1 59-64cm	0.9	< 0.2	0.6	1.6	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.02	< 0.1	< 0.4	< 0.4	3.9	4
CS 21-1 0-10cm	0.8	< 0.2	0.7	1.7	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.24	0.3	1.6	0.8	8.1	11
CS 21-1 59-62cm	0.3	< 0.2	0.6	0.9	0.7	< 0.5	6	7	< 0.04	< 0.04	0.15	0.2	0.5	< 0.4	4.2	5
CS 21-1 89-94cm	0.7	< 0.2	0.6	1.3	0.8	< 0.5	9	11	< 0.04	< 0.04	0.13	0.1	2.6	0.8	12.0	15
CS 23-1 0-10cm	3.4	0.7	2.1	6.2	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.12	0.1	1.7	0.9	6.8	9
CS 25-1A 0-10cm	1.3	0.3	1.3	2.9	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.11	0.1	1.7	0.6	6.2	9
CS 25-1 23-28cm	1.1	< 0.2	0.5	1.7	< 0.5	< 0.5	3	3	< 0.04	< 0.04	0.04	< 0.1	0.8	< 0.4	5.0	6
CS 25-1 58-63cm	1.3	< 0.2	0.5	2.0	< 0.5	< 0.5	2	3	< 0.04	< 0.04	0.04	< 0.1	1.7	0.4	8.9	11
CS 27-1 0-5cm	0.2	< 0.2	0.4	0.7	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.14	0.2	0.6	< 0.4	7.3	8
CS 27-1 56-66cm	0.7	< 0.2	0.5	1.3	< 0.5	< 0.5	3	3	< 0.04	< 0.04	0.10	0.1	1.2	< 0.4	6.8	8
CS 38-1 28-33cm	1.1	< 0.2	0.6	1.8	0.7	< 0.5	5	6	< 0.04	< 0.04	0.18	0.2	4.7	1.3	11.9	18
CS 38-1 38-43cm	1.7	0.2	1.6	3.6	5.3	2.8	23	31	< 0.04	< 0.04	0.79	0.8	5.6	2.1	20.5	28
CS 42-1 0-8cm	1.0	< 0.2	0.7	1.9	< 0.5	< 0.5	1	< 2	< 0.04	< 0.04	0.09	< 0.1	0.9	< 0.4	6.7	8
CS 42-1 48-53cm	1.9	0.3	0.8	3.0	< 0.5	< 0.5	3	3	< 0.04	< 0.04	0.07	< 0.1	3.7	1.1	17.6	22
CS 42-1 85-95cm	1.0	0.3	8.4	9.6	2.8	1.0	53	57	< 0.04	0.05	0.77	0.9	9.6	1.9	24.0	35
CS 46-1 10-20cm	0.8	< 0.2	0.8	1.8	< 0.5	< 0.5	2	< 2	< 0.04	< 0.04	0.33	0.3	0.9	< 0.4	6.8	8
CS 46-1 50-60cm	0.8	< 0.2	0.5	1.5	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.04	< 0.1	0.5	< 0.4	5.5	6
CS 46-1 97-107cm	1.1	0.2	1.0	2.3	< 0.5	< 0.5	2	< 2	< 0.04	< 0.04	0.05	< 0.1	3.0	0.7	13.5	17
CS 48-1 12-18cm	0.4	< 0.2	0.4	0.9	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.15	0.2	0.6	< 0.4	7.6	8
CS 48-1 100-105cm	1.1	< 0.2	0.6	1.9	< 0.5	< 0.5	3	3	< 0.04	< 0.04	0.03	< 0.1	1.3	< 0.4	9.6	11
CS 50-1 15-23cm	0.5	< 0.2	0.6	1.2	< 0.5	< 0.5	1	< 2	< 0.04	< 0.04	0.21	0.2	0.8	< 0.4	7.7	9
CS 50-1 64-74cm	0.6	< 0.2	0.4	1.0	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.02	< 0.1	< 0.4	< 0.4	4.6	5
CS 50-1 104-114cm	1.5	0.2	0.9	2.5	< 0.5	< 0.5	1	< 2	< 0.04	< 0.04	0.02	< 0.1	2.5	0.5	12.2	15
CS 52-1 6-13cm	0.3	< 0.2	0.4	0.7	< 0.5	< 0.5	1	< 2	< 0.04	< 0.04	0.15	0.2	0.7	< 0.4	8.6	10
CS 52-1 49-54cm	1.0	< 0.2	0.6	1.7	< 0.5	< 0.5	2	2	< 0.04	< 0.04	0.03	< 0.1	< 0.4	< 0.4	5.6	6
CS 52-1 94-98cm	2.6	0.4	1.3	4.3	< 0.5	< 0.5	5	5	< 0.04	< 0.04	0.09	< 0.1	1.3	< 0.4	8.9	11
CS 54-1 10-23cm	0.3	< 0.2	0.4	0.7	< 0.5	< 0.5	2	< 2	< 0.04	< 0.04	0.08	< 0.1	< 0.4	< 0.4	3.3	3
CS 56-1 13-18cm	0.4	< 0.2	0.4	0.9	< 0.5	< 0.5	2	< 2	< 0.04	< 0.04	0.18	0.2	0.8	< 0.4	10.4	11
CS 56-1 48-53cm	0.4	< 0.2	0.3	0.8	< 0.5	< 0.5	5	4	< 0.04	< 0.04	0.04	< 0.1	< 0.4	< 0.4	5.1	5
CS 58-1 10-22cm	0.5	< 0.2	0.3	0.9	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	0.13	0.1	0.6	< 0.4	7.8	9
REPEATS																
CS 1-1 0-10cm	4.3	0.8	3.6	8.7	3.0	1.7	22	26	< 0.04	< 0.04	0.40	0.4	6.1	2.4	13.1	22
CS 1-1 0-10cm REP	4.3	0.8	3.7	8.8	3.0	1.5	23	27	< 0.04	< 0.04	0.42	0.4	5.9	2.3	13.3	21
CS 17-1B 70-75 cm	4.2	0.7	3.0	7.9	5.8	2.4	39	48	< 0.04	0.05	0.71	0.8	5.3	1.4	12.5	19
CS 17-1B 70-75 cm	4.1	0.7	3.1	8.0	6.2	2.2	61	70	< 0.04	0.05	0.75	0.8	5.5	1.4	12.6	20
CS 25-1 23-28cm	1.1	< 0.2	0.5	1.7	< 0.5	< 0.5	3	3	< 0.04	< 0.04	0.04	< 0.1	0.8	< 0.4	5.0	6
CS 25-1 23-28cm REP	1.0	< 0.2	0.5	1.7	< 0.5	< 0.5	3	3	< 0.04	< 0.04	0.04	< 0.1	0.7	< 0.4	5.2	6
CS 38-1 38-43cm	1.7	0.2	1.6	3.6	5.3	2.8	23	31	< 0.04	< 0.04	0.79	0.8	5.6	2.1	20.5	28
CS 38-1 38-43cm REP	1.7	0.2	1.6	3.5	5.4	3.0	22	30	< 0.04	< 0.04	0.78	0.8	5.6	2.1	20.1	28
CS 52-1 49-54cm	1.0	< 0.2	0.6	1.7	< 0.5	< 0.5	2	2	< 0.04	< 0.04	0.03	< 0.1	< 0.4	< 0.4	5.6	6
CS 52-1 49-54cm REP	1.0	< 0.2	0.6	1.7	< 0.5	< 0.5	1	< 2	< 0.04	< 0.04	0.03	< 0.1	< 0.4	< 0.4	5.4	6
CONTROLS																
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	< 0.02	< 0.1	< 0.4	< 0.4	< 0.2	< 1
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	< 0.02	< 0.1	< 0.4	< 0.4	< 0.2	< 1
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	< 0.02	< 0.1	< 0.4	< 0.4	< 0.2	< 1
LKSD-4	2.1	0.3	6.0	8.5	3.4	0.9	14	19	< 0.04	< 0.04	0.98	1.0	8.8	1.6	18.2	29
LKSD-4	2.1	0.4	6.2	8.6	3.3	1.3	14	19	< 0.04	< 0.04	0.99	1.1	8.6	1.7	19.1	29
LKSD-4	2.1	0.4	5.9	8.4	3.0	1.4	14	19	< 0.04	< 0.04	0.96	1.0	8.7	1.8	18.9	29
Provisional Values				10 ± 1				21 ± 2								29 ± 3

	Dy	Dy	Dy	Dy	Er	Er	Er	Er	Eu	Eu	Eu	Eu	Fe	Fe	Fe	Fe
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.02	0.02	0.01	0.05	0.02	0.02	0.01	0.05	0.02	0.02	0.01	0.05	2	2	5	9
CS 1-1 0-10cm	0.25	0.07	0.34	0.67	0.11	0.03	0.17	0.31	0.11	0.03	0.11	0.24	1117	505	5569	7191
CS 5-1 0-10cm	0.09	< 0.02	0.04	0.14	0.04	< 0.02	0.02	0.07	0.03	< 0.02	0.01	< 0.05	83	< 2	1438	1520
CS 9-1 0-10cm	0.04	< 0.02	0.02	0.07	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	73	7	2072	2153
CS 9-1 55-61cm	0.71	0.08	0.12	0.91	0.35	0.04	0.06	0.46	0.26	0.03	0.04	0.33	4535	683	2193	7411
CS 11-1 0-10cm	0.07	< 0.02	0.02	0.10	0.03	< 0.02	0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	250	39	2142	2431
CS 11-1 44-47cm	1.29	0.10	0.48	1.87	0.67	0.05	0.19	0.91	0.47	0.03	0.17	0.67	2730	842	10554	14126
CS 13-1 0-5cm	0.05	< 0.02	0.02	0.07	0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	924	212	2377	3512
CS 13-1 45-49cm	0.41	0.07	0.16	0.65	0.21	0.04	0.07	0.32	0.14	< 0.02	0.06	0.22	2443	646	3030	6119
CS 17-1 0-5cm	0.05	< 0.02	0.02	0.07	0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	208	39	1587	1835
CS 17-1B 70-75 cm	0.64	0.08	0.31	1.02	0.33	0.05	0.13	0.51	0.21	0.02	0.11	0.34	4069	827	5029	9925
CS 19-1 0-10cm	0.07	< 0.02	0.03	0.11	0.03	< 0.02	0.01	0.05	< 0.02	< 0.02	< 0.01	< 0.05	845	296	4462	5602
CS 19-1 59-64cm	0.04	< 0.02	0.02	0.06	0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	478	74	1232	1784
CS 21-1 0-10cm	0.08	< 0.02	0.05	0.15	0.05	< 0.02	0.02	0.08	0.02	< 0.02	0.01	< 0.05	629	235	2914	3778
CS 21-1 59-62cm	0.14	< 0.02	0.22	0.38	0.07	< 0.02	0.09	0.17	0.05	< 0.02	0.06	0.11	80	25	1453	1558
CS 21-1 89-94cm	0.24	0.03	0.08	0.36	0.13	< 0.02	0.04	0.19	0.09	< 0.02	0.03	0.13	431	103	1493	2027
CS 23-1 0-10cm	0.06	< 0.02	0.02	0.08	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	783	289	5075	6147
CS 25-1A 0-10cm	0.06	< 0.02	0.02	0.09	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	107	40	2084	2230
CS 25-1 23-28cm	0.07	< 0.02	0.03	0.11	0.04	< 0.02	0.01	0.06	0.02	< 0.02	< 0.01	< 0.05	2341	472	3440	6253
CS 25-1 58-63cm	0.12	< 0.02	0.03	0.17	0.06	< 0.02	0.01	0.08	0.03	< 0.02	< 0.01	< 0.05	4883	952	3998	9833
CS 27-1 0-5cm	0.06	< 0.02	0.04	0.12	0.03	< 0.02	0.02	0.06	0.02	< 0.02	0.01	< 0.05	25	9	899	933
CS 27-1 56-66cm	0.14	0.02	0.07	0.23	0.07	< 0.02	0.04	0.12	0.04	< 0.02	0.02	0.07	152	62	1553	1766
CS 38-1 28-33cm	0.37	0.06	0.09	0.51	0.19	0.03	0.04	0.26	0.12	< 0.02	0.03	0.17	1140	277	2374	3791
CS 38-1 38-43cm	0.69	0.11	0.34	1.13	0.35	0.06	0.14	0.55	0.24	0.03	0.14	0.41	2048	657	5686	8391
CS 42-1 0-8cm	0.06	< 0.02	0.02	0.09	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	125	28	1778	1931
CS 42-1 48-53cm	0.31	0.04	0.07	0.42	0.16	0.02	0.04	0.22	0.10	< 0.02	0.02	0.13	2767	471	2103	5340
CS 42-1 85-95cm	0.51	0.04	0.45	1.00	0.25	0.02	0.09	0.36	0.18	< 0.02	0.18	0.37	2267	439	18054	20761
CS 46-1 10-20cm	0.09	< 0.02	0.04	0.15	0.04	< 0.02	0.02	0.06	0.02	< 0.02	0.01	< 0.05	435	104	3224	3763
CS 46-1 50-60cm	0.05	< 0.02	0.02	0.08	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	1552	297	2107	3956
CS 46-1 97-107cm	0.23	0.03	0.05	0.30	0.12	< 0.02	0.02	0.15	0.07	< 0.02	0.02	0.09	2752	419	2158	5329
CS 48-1 12-18cm	0.07	< 0.02	0.03	0.11	0.04	< 0.02	0.01	0.05	< 0.02	< 0.02	< 0.01	< 0.05	104	61	1848	2013
CS 48-1 100-105cm	0.20	0.02	0.04	0.27	0.10	< 0.02	0.02	0.13	0.07	< 0.02	0.01	0.08	4421	890	3370	8680
CS 50-1 15-23cm	0.09	< 0.02	0.04	0.14	0.05	< 0.02	0.02	0.07	0.02	< 0.02	0.01	< 0.05	112	35	2284	2430
CS 50-1 64-74cm	0.05	< 0.02	0.01	0.07	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	909	121	2181	3211
CS 50-1 104-114cm	0.15	< 0.02	0.03	0.19	0.08	< 0.02	0.01	0.10	0.05	< 0.02	< 0.01	0.06	4981	730	2561	8271
CS 52-1 6-13cm	0.08	< 0.02	0.03	0.13	0.04	< 0.02	0.02	0.07	0.02	< 0.02	< 0.01	< 0.05	76	20	1780	1876
CS 52-1 49-54cm	0.05	< 0.02	0.01	0.07	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	1179	152	2187	3518
CS 52-1 94-98cm	0.11	< 0.02	0.04	0.15	0.06	< 0.02	0.02	0.08	0.03	< 0.02	< 0.01	< 0.05	5188	1007	2915	9109
CS 54-1 10-23cm	0.04	< 0.02	0.02	0.07	0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	80	15	1045	1139
CS 56-1 13-18cm	0.10	< 0.02	0.04	0.15	0.05	< 0.02	0.02	0.07	0.03	< 0.02	< 0.01	< 0.05	57	11	1344	1412
CS 56-1 48-53cm	0.06	< 0.02	0.02	0.09	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	340	38	1372	1750
CS 58-1 10-22cm	0.06	< 0.02	0.02	0.10	0.03	< 0.02	0.01	0.05	< 0.02	< 0.02	< 0.01	< 0.05	96	12	1293	1401
REPEATS																
CS 1-1 0-10cm	0.25	0.07	0.34	0.67	0.11	0.03	0.17	0.31	0.11	0.03	0.11	0.24	1117	505	5569	7191
CS 1-1 0-10cm REP	0.26	0.07	0.36	0.69	0.12	0.03	0.18	0.33	0.10	0.02	0.11	0.24	1102	505	5804	7410
CS 17-1B 70-75 cm	0.64	0.08	0.31	1.02	0.33	0.05	0.13	0.51	0.21	0.02	0.11	0.34	4069	827	5029	9925
CS 17-1B 70-75 cm	0.66	0.08	0.32	1.06	0.34	0.04	0.14	0.52	0.21	0.02	0.11	0.34	4015	836	5389	10240
CS 25-1 23-28cm	0.07	< 0.02	0.03	0.11	0.04	< 0.02	0.01	0.06	0.02	< 0.02	< 0.01	< 0.05	2341	472	3440	6253
CS 25-1 23-28cm REP	0.07	< 0.02	0.03	0.11	0.04	< 0.02	0.01	0.06	0.02	< 0.02	< 0.01	< 0.05	2339	468	3477	6283
CS 38-1 38-43cm	0.69	0.11	0.34	1.13	0.35	0.06	0.14	0.55	0.24	0.03	0.14	0.41	2048	657	5686	8391
CS 38-1 38-43cm REP	0.67	0.10	0.34	1.11	0.34	0.05	0.14	0.54	0.24	0.03	0.13	0.40	2036	666	5546	8248
CS 52-1 49-54cm	0.05	< 0.02	0.01	0.07	0.03	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	1179	152	2187	3518
CS 52-1 49-54cm REP	0.05	< 0.02	0.01	0.07	0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	1154	146	2122	3421
CONTROLS																
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 5	< 9
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 5	< 9
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 5	< 9
LKSD-4	2.05	0.22	0.59	2.86	1.20	0.12	0.32	1.64	0.63	0.06	0.18	0.86	3076	697	20286	24059
LKSD-4	2.03	0.22	0.61	2.86	1.17	0.13	0.34	1.64	0.62	0.06	0.18	0.87	3118	736	19983	23836
LKSD-4	2.07	0.23	0.60	2.89	1.20	0.13	0.31	1.64	0.63	0.06	0.16	0.86	3176	694	20042	23912
Provisional Values																2.7 ± 0.3 %

	Ga	Ga	Ga	Ga	Gd	Gd	Gd	Gd	Ge	Ge	Ge	Ge	Hf	Hf	Hf	Hf
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.04	0.04	0.02	0.1	0.02	0.02	0.01	0.05	0.07	0.07	0.04	0.18	0.04	0.04	0.02	0.10
CS 1-1 0-10cm	0.15	0.17	1.69	2.0	0.38	0.10	0.50	0.98	< 0.07	< 0.07	< 0.04	< 0.18	0.07	< 0.04	0.05	0.12
CS 5-1 0-10cm	< 0.04	0.05	0.39	0.4	0.11	< 0.02	0.05	0.18	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.52	0.53
CS 9-1 0-10cm	< 0.04	< 0.04	0.16	0.2	0.05	< 0.02	0.02	0.09	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.14	0.14
CS 9-1 55-61cm	0.22	0.10	0.67	1.0	1.05	0.12	0.18	1.35	< 0.07	< 0.07	< 0.04	< 0.18	0.13	< 0.04	0.07	0.21
CS 11-1 0-10cm	< 0.04	< 0.04	0.24	0.3	0.08	< 0.02	0.03	0.13	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.06	< 0.10
CS 11-1 44-47cm	0.68	0.46	4.60	5.7	1.88	0.13	0.86	2.86	< 0.07	< 0.07	< 0.04	< 0.18	0.30	0.07	0.05	0.42
CS 13-1 0-5cm	< 0.04	0.04	0.18	0.2	0.06	< 0.02	0.02	0.10	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.04	< 0.10
CS 13-1 45-49cm	0.19	0.14	1.13	1.5	0.60	0.09	0.25	0.93	< 0.07	< 0.07	0.05	< 0.18	0.08	< 0.04	0.07	0.18
CS 17-1 0-5cm	< 0.04	< 0.04	0.19	0.2	0.06	< 0.02	0.02	0.09	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.04	< 0.10
CS 17-1B 70-75 cm	0.52	0.34	2.31	3.2	0.87	0.10	0.50	1.47	< 0.07	< 0.07	< 0.04	< 0.18	0.23	0.07	0.04	0.34
CS 19-1 0-10cm	< 0.04	< 0.04	0.32	0.4	0.09	< 0.02	0.05	0.15	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.03	< 0.10
CS 19-1 59-64cm	< 0.04	< 0.04	0.16	0.2	0.05	< 0.02	0.02	0.08	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.02	< 0.10
CS 21-1 0-10cm	< 0.04	< 0.04	0.31	0.3	0.11	0.03	0.06	0.20	< 0.07	< 0.07	0.04	< 0.18	< 0.04	< 0.04	0.04	< 0.10
CS 21-1 59-62cm	0.05	< 0.04	0.71	0.8	0.20	< 0.02	0.34	0.56	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.02	< 0.10
CS 21-1 89-94cm	0.05	0.05	0.84	0.9	0.31	0.04	0.12	0.47	< 0.07	< 0.07	0.07	< 0.18	0.04	< 0.04	0.04	0.11
CS 23-1 0-10cm	< 0.04	< 0.04	0.21	0.3	0.07	< 0.02	0.03	0.10	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 25-1A 0-10cm	< 0.04	< 0.04	0.21	0.3	0.08	< 0.02	0.03	0.12	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 25-1 23-28cm	< 0.04	< 0.04	0.19	0.2	0.10	< 0.02	0.03	0.14	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 25-1 58-63cm	< 0.04	< 0.04	0.24	0.3	0.15	< 0.02	0.04	0.21	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 27-1 0-5cm	< 0.04	< 0.04	0.26	0.2	0.08	< 0.02	0.05	0.15	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.54	0.54
CS 27-1 56-66cm	< 0.04	< 0.04	0.42	0.4	0.17	0.03	0.09	0.28	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.15	0.18
CS 38-1 28-33cm	< 0.04	0.04	0.71	0.8	0.50	0.07	0.13	0.70	< 0.07	< 0.07	0.08	< 0.18	0.05	< 0.04	0.08	0.13
CS 38-1 38-43cm	0.26	0.22	3.52	4.0	0.94	0.13	0.59	1.66	< 0.07	< 0.07	< 0.04	< 0.18	0.16	0.06	0.07	0.29
CS 42-1 0-8cm	< 0.04	< 0.04	0.21	0.2	0.08	< 0.02	0.02	0.11	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.04	< 0.10
CS 42-1 48-53cm	< 0.04	< 0.04	0.47	0.5	0.42	0.05	0.11	0.57	< 0.07	< 0.07	< 0.04	< 0.18	0.07	< 0.04	0.04	0.13
CS 42-1 85-95cm	0.10	0.07	5.71	5.9	0.68	0.06	0.98	1.72	< 0.07	< 0.07	0.04	< 0.18	0.14	< 0.04	0.04	0.19
CS 46-1 10-20cm	< 0.04	< 0.04	0.43	0.4	0.11	< 0.02	0.06	0.19	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.04	< 0.10
CS 46-1 50-60cm	< 0.04	< 0.04	0.21	0.2	0.06	< 0.02	0.03	0.10	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.03	< 0.10
CS 46-1 97-107cm	0.07	< 0.04	0.41	0.5	0.29	0.03	0.07	0.38	< 0.07	< 0.07	< 0.04	< 0.18	0.04	< 0.04	0.03	< 0.10
CS 48-1 12-18cm	< 0.04	< 0.04	0.21	0.2	0.08	< 0.02	0.04	0.13	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.03	< 0.10
CS 48-1 100-105cm	< 0.04	< 0.04	0.31	0.3	0.26	0.03	0.06	0.35	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.03	< 0.10
CS 50-1 15-23cm	< 0.04	< 0.04	0.38	0.4	0.11	< 0.02	0.06	0.18	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.03	< 0.10
CS 50-1 64-74cm	< 0.04	< 0.04	0.16	0.2	0.06	< 0.02	0.02	0.08	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 50-1 104-114cm	< 0.04	< 0.04	0.21	0.2	0.18	< 0.02	0.04	0.24	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 52-1 6-13cm	< 0.04	< 0.04	0.32	0.3	0.09	< 0.02	0.04	0.15	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 52-1 49-54cm	< 0.04	< 0.04	0.16	0.1	0.07	< 0.02	0.02	0.09	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 52-1 94-98cm	< 0.04	< 0.04	0.37	0.4	0.13	< 0.02	0.05	0.19	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 54-1 10-23cm	< 0.04	< 0.04	0.20	0.2	0.06	< 0.02	0.03	0.10	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.54	0.53
CS 56-1 13-18cm	0.05	< 0.04	0.37	0.4	0.13	< 0.02	0.05	0.19	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.14	0.14
CS 56-1 48-53cm	< 0.04	< 0.04	0.20	0.2	0.08	< 0.02	0.02	0.11	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.09	< 0.10
CS 58-1 10-22cm	< 0.04	< 0.04	0.22	0.2	0.08	< 0.02	0.03	0.12	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.05	< 0.10
REPEATS																
CS 1-1 0-10cm	0.15	0.17	1.69	2.0	0.38	0.10	0.50	0.98	< 0.07	< 0.07	< 0.04	< 0.18	0.07	< 0.04	0.05	0.12
CS 1-1 0-10cm REP	0.13	0.14	1.73	2.0	0.40	0.09	0.53	1.02	< 0.07	< 0.07	< 0.04	< 0.18	0.07	< 0.04	0.05	0.14
CS 17-1B 70-75 cm	0.52	0.34	2.31	3.2	0.87	0.10	0.50	1.47	< 0.07	< 0.07	< 0.04	< 0.18	0.23	0.07	0.04	0.34
CS 17-1B 70-75 cm	0.55	0.31	2.44	3.3	0.88	0.10	0.52	1.50	< 0.07	< 0.07	< 0.04	< 0.18	0.22	0.08	0.03	0.33
CS 25-1 23-28cm	< 0.04	< 0.04	0.19	0.2	0.10	< 0.02	0.03	0.14	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 25-1 23-28cm REP	< 0.04	< 0.04	0.19	0.2	0.09	< 0.02	0.03	0.14	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.02	< 0.10
CS 38-1 38-43cm	0.26	0.22	3.52	4.0	0.94	0.13	0.59	1.66	< 0.07	< 0.07	< 0.04	< 0.18	0.16	0.06	0.07	0.29
CS 38-1 38-43cm REP	0.27	0.18	3.39	3.9	0.93	0.13	0.59	1.65	< 0.07	< 0.07	< 0.04	< 0.18	0.17	0.08	0.05	0.29
CS 52-1 49-54cm	< 0.04	< 0.04	0.16	0.1	0.07	< 0.02	0.02	0.09	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
CS 52-1 49-54cm REP	< 0.04	< 0.04	0.17	0.2	0.06	< 0.02	0.02	0.09	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	0.04	< 0.10
CONTROLS																
BLANK	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
BLANK	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
BLANK	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05	< 0.07	< 0.07	< 0.04	< 0.18	< 0.04	< 0.04	< 0.02	< 0.10
LKSD-4	0.29	0.16	3.15	3.6	2.59	0.27	0.77	3.63	< 0.07	< 0.07	0.04	< 0.18	0.08	< 0.04	< 0.02	< 0.10
LKSD-4	0.29	0.12	3.18	3.6	2.50	0.28	0.79	3.58	< 0.07	< 0.07	0.06	< 0.18	0.09	< 0.04	< 0.02	0.11
LKSD-4	0.28	0.16	2.98	3.4	2.54	0.27	0.75	3.56	< 0.07	< 0.07	0.06	< 0.18	0.08	< 0.04	< 0.02	< 0.10
Provisional Values																

	Ho	Ho	Ho	Ho	In	In	In	In	K	K	K	K	La	La	La	La
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.02	0.02	0.01	0.05	0.04	0.04	0.02	0.1	23	23	50	96	0.04	0.04	0.02	0.1
CS 1-1 0-10cm	0.04	< 0.02	0.06	0.12	< 0.04	< 0.04	< 0.02	< 0.1	226	83	1044	1353	2.12	0.51	3.72	6.4
CS 5-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	395	45	103	543	0.70	0.09	0.49	1.3
CS 9-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	981	122	63	1167	0.34	0.06	0.16	0.6
CS 9-1 55-61cm	0.13	< 0.02	0.02	0.17	< 0.04	< 0.04	< 0.02	< 0.1	43	< 23	180	235	7.90	0.76	1.80	10.5
CS 11-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	261	34	54	348	0.44	0.06	0.22	0.7
CS 11-1 44-47cm	0.25	< 0.02	0.08	0.35	< 0.04	< 0.04	< 0.02	< 0.1	301	224	2325	2850	18.29	1.04	9.67	29.0
CS 13-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	695	49	83	827	0.43	0.06	0.22	0.7
CS 13-1 45-49cm	0.08	< 0.02	0.03	0.12	< 0.04	< 0.04	< 0.02	< 0.1	105	27	310	442	4.67	0.61	2.69	8.0
CS 17-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	187	< 23	< 50	252	0.38	0.04	0.18	0.6
CS 17-1B 70-75 cm	0.12	< 0.02	0.05	0.19	< 0.04	< 0.04	< 0.02	< 0.1	130	106	913	1149	6.98	0.70	5.58	13.3
CS 19-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	832	97	127	1056	0.43	0.06	0.40	0.9
CS 19-1 59-64cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	77	< 23	< 50	109	0.32	< 0.04	0.17	0.5
CS 21-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	635	78	106	819	0.44	0.08	0.42	0.9
CS 21-1 59-62cm	0.03	< 0.02	0.04	0.07	< 0.04	< 0.04	< 0.02	< 0.1	< 23	< 23	139	162	1.37	0.10	2.50	4.0
CS 21-1 89-94cm	0.05	< 0.02	0.02	0.07	< 0.04	< 0.04	< 0.02	< 0.1	39	< 23	142	193	1.92	0.21	0.93	3.1
CS 23-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	1344	154	81	1578	0.44	0.07	0.21	0.7
CS 25-1A 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	669	78	86	833	0.40	0.06	0.24	0.7
CS 25-1 23-28cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	166	< 23	< 50	237	0.34	0.04	0.21	0.6
CS 25-1 58-63cm	0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	29	< 23	< 50	< 96	0.78	0.08	0.31	1.2
CS 27-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	387	60	73	520	0.36	0.07	0.27	0.7
CS 27-1 56-66cm	0.03	< 0.02	0.02	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	36	< 23	80	123	0.91	0.14	0.59	1.6
CS 38-1 28-33cm	0.07	< 0.02	0.02	0.10	< 0.04	< 0.04	< 0.02	< 0.1	261	36	158	455	3.53	0.40	1.13	5.1
CS 38-1 38-43cm	0.13	< 0.02	0.06	0.21	< 0.04	< 0.04	< 0.02	< 0.1	273	80	956	1310	6.84	0.77	6.61	14.2
CS 42-1 0-8cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	487	69	74	629	0.39	0.05	0.18	0.6
CS 42-1 48-53cm	0.06	< 0.02	0.01	0.08	< 0.04	< 0.04	< 0.02	< 0.1	52	< 23	85	144	2.86	0.30	0.88	4.0
CS 42-1 85-95cm	0.09	< 0.02	0.05	0.15	< 0.04	< 0.04	< 0.02	< 0.1	152	62	828	1042	4.72	0.38	7.08	12.2
CS 46-1 10-20cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	1305	146	199	1649	0.50	0.06	0.59	1.2
CS 46-1 50-60cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	30	< 23	< 50	< 96	0.34	0.05	0.20	0.6
CS 46-1 97-107cm	0.04	< 0.02	< 0.01	0.05	< 0.04	< 0.04	< 0.02	< 0.1	23	< 23	59	97	2.08	0.19	0.64	2.9
CS 48-1 12-18cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	912	102	93	1107	0.42	0.07	0.24	0.7
CS 48-1 100-105cm	0.04	< 0.02	< 0.01	0.05	< 0.04	< 0.04	< 0.02	< 0.1	67	< 23	< 50	116	1.85	0.17	0.46	2.5
CS 50-1 15-23cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	459	67	132	658	0.49	0.06	0.45	1.0
CS 50-1 64-74cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	26	< 23	< 50	< 96	0.36	< 0.04	0.14	0.5
CS 50-1 104-114cm	0.03	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	24	< 23	< 50	< 96	1.40	0.14	0.35	1.9
CS 52-1 6-13cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	320	41	95	456	0.45	0.07	0.31	0.8
CS 52-1 49-54cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	204	26	< 50	263	0.26	< 0.04	0.15	0.4
CS 52-1 94-98cm	0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	45	< 23	148	201	0.80	0.08	0.47	1.4
CS 54-1 10-23cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	182	< 23	< 50	252	0.24	< 0.04	0.20	0.5
CS 56-1 13-18cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	500	61	122	683	0.60	0.07	0.36	1.0
CS 56-1 48-53cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	177	24	< 50	238	0.36	< 0.04	0.16	0.6
CS 58-1 10-22cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	1440	170	98	1708	0.38	0.06	0.20	0.6
REPEATS																
CS 1-1 0-10cm	0.04	< 0.02	0.06	0.12	< 0.04	< 0.04	< 0.02	< 0.1	226	83	1044	1353	2.12	0.51	3.72	6.4
CS 1-1 0-10cm REP	0.05	< 0.02	0.07	0.13	< 0.04	< 0.04	< 0.02	< 0.1	221	81	1084	1386	2.15	0.50	4.00	6.6
CS 17-1B 70-75 cm	0.12	< 0.02	0.05	0.19	< 0.04	< 0.04	< 0.02	< 0.1	130	106	913	1149	6.98	0.70	5.58	13.3
CS 17-1B 70-75 cm	0.13	< 0.02	0.05	0.20	< 0.04	< 0.04	< 0.02	< 0.1	124	104	963	1191	7.01	0.69	5.70	13.4
CS 25-1 23-28cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	166	< 23	< 50	237	0.34	0.04	0.21	0.6
CS 25-1 23-28cm REP	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	166	< 23	52	239	0.33	< 0.04	0.22	0.6
CS 38-1 38-43cm	0.13	< 0.02	0.06	0.21	< 0.04	< 0.04	< 0.02	< 0.1	273	80	956	1310	6.84	0.77	6.61	14.2
CS 38-1 38-43cm REP	0.13	< 0.02	0.06	0.21	< 0.04	< 0.04	< 0.02	< 0.1	277	82	956	1315	6.81	0.74	6.45	14.0
CS 52-1 49-54cm	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	204	26	< 50	263	0.26	< 0.04	0.15	0.4
CS 52-1 49-54cm REP	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	205	25	< 50	259	0.24	< 0.04	0.14	0.4
CONTROLS																
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	< 23	< 23	< 50	< 96	< 0.04	< 0.04	< 0.02	< 0.1
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	< 23	< 23	< 50	< 96	< 0.04	< 0.04	< 0.02	< 0.1
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.04	< 0.04	< 0.02	< 0.1	< 23	< 23	< 50	< 96	< 0.04	< 0.04	< 0.02	< 0.1
LKSD-4	0.42	0.05	0.12	0.58	< 0.04	< 0.04	< 0.02	< 0.1	136	59	886	1080	14.02	1.34	5.77	21.1
LKSD-4	0.41	0.05	0.12	0.58	< 0.04	< 0.04	< 0.02	< 0.1	136	59	907	1102	13.77	1.37	5.89	21.0
LKSD-4	0.41	0.04	0.11	0.57	< 0.04	< 0.04	< 0.02	< 0.1	139	60	891	1091	14.11	1.30	5.63	21.0
Provisional Values																

	Li	Li	Li	Li	Lu	Lu	Lu	Lu	Mg	Mg	Mg	Mg	Mn	Mn	Mn	Mn
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.07	0.07	0.04	0.18	0.02	0.02	0.01	0.05	2	2	5	9	0.4	0.4	0.2	1
CS 1-1 0-10cm	0.35	0.30	6.72	7.38	< 0.02	< 0.02	0.02	< 0.05	2410	166	2474	5051	124.2	8.9	100.5	234
CS 5-1 0-10cm	< 0.07	< 0.07	0.33	0.36	< 0.02	< 0.02	< 0.01	< 0.05	4462	262	128	4853	301.5	23.8	10.6	336
CS 9-1 0-10cm	< 0.07	< 0.07	0.14	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4834	426	156	5416	2508.2	262.1	159.0	2929
CS 9-1 55-61cm	< 0.07	< 0.07	1.13	1.25	0.04	< 0.02	< 0.01	0.06	4309	180	244	4733	92.7	80.2	21.2	194
CS 11-1 0-10cm	< 0.07	< 0.07	0.16	0.19	< 0.02	< 0.02	< 0.01	< 0.05	4947	385	123	5455	656.4	67.9	30.2	754
CS 11-1 44-47cm	1.19	1.06	12.90	15.15	0.08	< 0.02	0.02	0.11	3994	202	3663	7859	94.6	77.3	73.3	245
CS 13-1 0-5cm	< 0.07	< 0.07	0.31	0.32	< 0.02	< 0.02	< 0.01	< 0.05	2795	155	122	3071	1881.0	121.9	24.3	2027
CS 13-1 45-49cm	0.07	0.10	1.92	2.09	0.03	< 0.02	< 0.01	< 0.05	4536	228	432	5196	254.5	134.8	39.9	429
CS 17-1 0-5cm	< 0.07	< 0.07	0.12	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	5298	335	110	5743	83.5	8.1	6.8	98
CS 17-1B 70-75 cm	0.59	0.49	5.48	6.56	0.04	< 0.02	0.02	0.06	3679	172	1352	5203	303.0	29.9	45.8	379
CS 19-1 0-10cm	< 0.07	< 0.07	0.44	0.46	< 0.02	< 0.02	< 0.01	< 0.05	5966	351	236	6553	834.0	52.3	38.8	925
CS 19-1 59-64cm	< 0.07	< 0.07	0.07	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	3827	187	49	4063	130.3	13.4	5.5	149
CS 21-1 0-10cm	< 0.07	< 0.07	0.48	0.51	< 0.02	< 0.02	< 0.01	< 0.05	6689	410	460	7559	1102.8	80.0	174.3	1357
CS 21-1 59-62cm	< 0.07	< 0.07	2.00	2.09	< 0.02	< 0.02	< 0.01	< 0.05	3065	68	468	3600	87.7	7.6	12.4	108
CS 21-1 89-94cm	< 0.07	< 0.07	1.41	1.52	< 0.02	< 0.02	< 0.01	< 0.05	5384	284	291	5959	96.7	9.2	9.0	115
CS 23-1 0-10cm	< 0.07	< 0.07	0.18	0.23	< 0.02	< 0.02	< 0.01	< 0.05	5376	394	155	5925	5007.9	565.5	258.9	5832
CS 25-1A 0-10cm	< 0.07	< 0.07	0.29	0.33	< 0.02	< 0.02	< 0.01	< 0.05	5710	409	181	6300	2196.4	194.1	95.9	2486
CS 25-1 23-28cm	< 0.07	< 0.07	0.16	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	5298	300	193	5792	232.3	11.8	19.9	264
CS 25-1 58-63cm	1.13	< 0.07	0.29	1.43	< 0.02	< 0.02	< 0.01	< 0.05	3758	213	118	4089	200.9	11.7	10.7	223
CS 27-1 0-5cm	< 0.07	< 0.07	0.13	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	5777	486	403	6666	67.7	6.3	14.8	89
CS 27-1 56-66cm	< 0.07	< 0.07	0.43	0.48	< 0.02	< 0.02	< 0.01	< 0.05	6569	439	632	7640	126.6	9.1	31.6	167
CS 38-1 28-33cm	< 0.07	< 0.07	1.02	1.07	0.02	< 0.02	< 0.01	< 0.05	4611	279	220	5110	54.1	3.3	5.8	63
CS 38-1 38-43cm	0.28	0.28	7.71	8.27	0.04	< 0.02	0.02	0.07	4116	194	1128	5438	81.3	3.9	20.4	106
CS 42-1 0-8cm	< 0.07	< 0.07	0.17	0.18	< 0.02	< 0.02	< 0.01	< 0.05	5211	449	155	5815	2013.0	169.1	78.4	2261
CS 42-1 48-53cm	< 0.07	< 0.07	0.48	0.51	0.02	< 0.02	< 0.01	< 0.05	4496	272	123	4891	113.6	6.9	4.6	125
CS 42-1 85-95cm	0.22	0.23	24.13	24.57	0.03	< 0.02	< 0.01	< 0.05	2856	105	7186	10147	120.4	69.8	90.6	281
CS 46-1 10-20cm	< 0.07	< 0.07	0.93	0.98	< 0.02	< 0.02	< 0.01	< 0.05	5663	288	364	6314	497.9	24.7	20.2	543
CS 46-1 50-60cm	< 0.07	< 0.07	0.11	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4436	262	80	4778	113.2	10.4	5.7	129
CS 46-1 97-107cm	< 0.07	< 0.07	0.27	0.29	< 0.02	< 0.02	< 0.01	< 0.05	4208	287	96	4591	141.7	89.0	24.6	255
CS 48-1 12-18cm	< 0.07	< 0.07	0.25	0.27	< 0.02	< 0.02	< 0.01	< 0.05	5345	374	182	5901	283.9	58.3	27.4	370
CS 48-1 100-105cm	< 0.07	< 0.07	0.19	0.21	< 0.02	< 0.02	< 0.01	< 0.05	4498	270	80	4847	208.2	12.4	5.1	226
CS 50-1 15-23cm	< 0.07	< 0.07	0.56	0.59	< 0.02	< 0.02	< 0.01	< 0.05	5394	378	300	6072	536.1	37.2	30.9	604
CS 50-1 64-74cm	< 0.07	< 0.07	0.08	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4059	242	71	4371	131.9	10.1	5.6	148
CS 50-1 104-114cm	< 0.07	< 0.07	0.14	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	3947	233	61	4241	307.3	17.2	5.9	330
CS 52-1 6-13cm	< 0.07	< 0.07	0.27	0.28	< 0.02	< 0.02	< 0.01	< 0.05	5138	384	253	5775	138.8	10.6	14.8	164
CS 52-1 49-54cm	< 0.07	< 0.07	0.07	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4731	302	82	5115	154.1	8.7	5.5	168
CS 52-1 94-98cm	< 0.07	< 0.07	0.61	0.68	< 0.02	< 0.02	< 0.01	< 0.05	3922	238	195	4355	348.1	20.2	9.5	378
CS 54-1 10-23cm	< 0.07	< 0.07	0.17	0.18	< 0.02	< 0.02	< 0.01	< 0.05	4777	295	134	5205	210.4	12.8	12.2	235
CS 56-1 13-18cm	< 0.07	< 0.07	0.39	0.43	< 0.02	< 0.02	< 0.01	< 0.05	5413	406	239	6058	174.0	12.0	12.7	199
CS 56-1 48-53cm	< 0.07	< 0.07	0.09	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4964	325	92	5381	57.8	3.4	3.6	65
CS 58-1 10-22cm	< 0.07	< 0.07	0.18	0.23	< 0.02	< 0.02	< 0.01	< 0.05	4950	384	160	5494	252.2	38.3	17.8	308
REPEATS																
CS 1-1 0-10cm	0.35	0.30	6.72	7.38	< 0.02	< 0.02	0.02	< 0.05	2410	166	2474	5051	124.2	8.9	100.5	234
CS 1-1 0-10cm REP	0.32	0.29	7.29	7.89	< 0.02	< 0.02	0.02	< 0.05	2444	166	2552	5162	126.1	9.0	99.7	235
CS 17-1B 70-75 cm	0.59	0.49	5.48	6.56	0.04	< 0.02	0.02	0.06	3679	172	1352	5203	303.0	29.9	45.8	379
CS 17-1B 70-75 cm	0.56	0.51	5.80	6.87	0.04	< 0.02	0.01	0.06	3650	176	1438	5264	302.9	30.7	49.3	383
CS 25-1 23-28cm	< 0.07	< 0.07	0.16	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	5298	300	193	5792	232.3	11.8	19.9	264
CS 25-1 23-28cm REP	< 0.07	< 0.07	0.18	0.18	< 0.02	< 0.02	< 0.01	< 0.05	5213	298	188	5699	227.0	12.1	19.6	259
CS 38-1 38-43cm	0.28	0.28	7.71	8.27	0.04	< 0.02	0.02	0.07	4116	194	1128	5438	81.3	3.9	20.4	106
CS 38-1 38-43cm REP	0.27	0.28	7.73	8.27	0.04	< 0.02	0.02	0.06	4079	189	1102	5370	79.9	3.7	20.1	104
CS 52-1 49-54cm	< 0.07	< 0.07	0.07	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4731	302	82	5115	154.1	8.7	5.5	168
CS 52-1 49-54cm REP	< 0.07	< 0.07	0.07	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	4717	288	76	5080	149.3	8.5	5.4	163
CONTROLS																
BLANK	< 0.07	< 0.07	< 0.04	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 5	< 9	< 0.4	< 0.4	< 0.2	< 1
BLANK	< 0.07	< 0.07	< 0.04	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 5	< 9	< 0.4	< 0.4	< 0.2	< 1
BLANK	< 0.07	< 0.07	< 0.04	< 0.18	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 5	< 9	< 0.4	< 0.4	< 0.2	< 1
LKSD-4	< 0.07	< 0.07	8.72	8.78	0.18	< 0.02	0.04	0.23	475	29	3024	3528	223.1	46.6	138.6	408
LKSD-4	< 0.07	< 0.07	8.81	8.86	0.17	< 0.02	0.04	0.23	478	33	2982	3492	215.5	49.4	141.5	406
LKSD-4	< 0.07	< 0.07	8.46	8.53	0.18	< 0.02	0.04	0.23	483	29	2955	3467	230.1	46.8	136.1	413
Provisional Values												0.41 ± 0.05%				430 ± 30

	Mo	Mo	Mo	Mo	Na	Na	Na	Na	Nb	Nb	Nb	Nb	Nd	Nd	Nd	Nd
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.2	0.2	0.1	0.5	NA	NA	NA	NA	0.04	0.04	0.02	0.1	0.02	0.02	0.01	0.05
CS 1-1 0-10cm	0.3	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.12	0.24	0.65	1.0	2.21	0.51	3.56	6.29
CS 5-1 0-10cm	0.3	< 0.2	0.3	0.6	NA	NA	NA	NA	< 0.04	0.06	0.39	0.5	0.62	0.09	0.40	1.11
CS 9-1 0-10cm	0.6	< 0.2	0.5	1.3	NA	NA	NA	NA	< 0.04	< 0.04	0.08	0.1	0.28	0.05	0.14	0.46
CS 9-1 55-61cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.21	0.06	0.17	0.4	6.92	0.70	1.49	9.10
CS 11-1 0-10cm	0.4	< 0.2	0.2	0.8	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.44	0.06	0.19	0.69
CS 11-1 44-47cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.47	0.22	1.43	2.1	14.23	0.87	7.82	22.92
CS 13-1 0-5cm	0.4	< 0.2	0.1	0.7	NA	NA	NA	NA	< 0.04	0.10	< 0.02	0.1	0.30	0.06	0.19	0.55
CS 13-1 45-49cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.15	0.17	0.41	0.7	3.80	0.52	2.17	6.48
CS 17-1 0-5cm	0.3	< 0.2	0.3	0.7	NA	NA	NA	NA	< 0.04	0.05	< 0.02	< 0.1	0.29	0.04	0.15	0.48
CS 17-1B 70-75 cm	< 0.2	< 0.2	0.4	< 0.5	NA	NA	NA	NA	0.38	0.14	0.78	1.3	5.68	0.62	4.49	10.79
CS 19-1 0-10cm	0.4	< 0.2	0.2	0.7	NA	NA	NA	NA	< 0.04	< 0.04	0.05	< 0.1	0.44	0.06	0.33	0.84
CS 19-1 59-64cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.29	0.03	0.15	0.46
CS 21-1 0-10cm	0.5	< 0.2	0.2	0.9	NA	NA	NA	NA	< 0.04	< 0.04	0.11	0.1	0.55	0.11	0.38	1.04
CS 21-1 59-62cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	0.26	0.3	1.24	0.11	2.36	3.71
CS 21-1 89-94cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.05	< 0.04	0.35	0.4	1.90	0.24	0.86	3.00
CS 23-1 0-10cm	1.0	< 0.2	0.2	1.4	NA	NA	NA	NA	< 0.04	< 0.04	0.02	< 0.1	0.36	0.06	0.18	0.60
CS 25-1A 0-10cm	0.6	< 0.2	0.2	0.9	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.38	0.06	0.21	0.64
CS 25-1 23-28cm	0.3	< 0.2	0.2	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.46	0.06	0.20	0.72
CS 25-1 58-63cm	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.76	0.08	0.29	1.13
CS 27-1 0-5cm	1.0	0.3	0.6	1.8	NA	NA	NA	NA	< 0.04	0.11	0.40	0.5	0.42	0.08	0.27	0.77
CS 27-1 56-66cm	0.4	< 0.2	0.2	0.8	NA	NA	NA	NA	< 0.04	< 0.04	0.23	0.3	0.92	0.14	0.56	1.62
CS 38-1 28-33cm	< 0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	0.07	< 0.04	0.32	0.4	3.20	0.39	1.00	4.60
CS 38-1 38-43cm	< 0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	0.41	0.09	0.78	1.3	6.03	0.74	5.37	12.14
CS 42-1 0-8cm	0.5	< 0.2	0.3	1.0	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.41	0.06	0.16	0.63
CS 42-1 48-53cm	< 0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	0.06	< 0.04	0.18	0.3	2.53	0.28	0.77	3.57
CS 42-1 85-95cm	< 0.2	< 0.2	0.3	< 0.5	NA	NA	NA	NA	0.16	0.05	1.80	2.0	4.38	0.37	6.76	11.51
CS 46-1 10-20cm	0.4	< 0.2	0.3	0.8	NA	NA	NA	NA	< 0.04	< 0.04	0.13	< 0.1	0.56	0.07	0.51	1.14
CS 46-1 50-60cm	0.3	< 0.2	0.2	0.6	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.33	0.05	0.18	0.56
CS 46-1 97-107cm	0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	0.06	< 0.04	0.14	0.1	1.74	0.16	0.54	2.44
CS 48-1 12-18cm	0.5	< 0.2	0.5	1.1	NA	NA	NA	NA	< 0.04	< 0.04	0.03	< 0.1	0.40	0.07	0.23	0.70
CS 48-1 100-105cm	0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	0.14	0.2	1.67	0.17	0.41	2.25
CS 50-1 15-23cm	0.3	< 0.2	0.2	0.6	NA	NA	NA	NA	< 0.04	< 0.04	0.11	0.2	0.55	0.07	0.39	1.01
CS 50-1 64-74cm	0.3	< 0.2	0.2	0.6	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.32	0.03	0.12	0.47
CS 50-1 104-114cm	< 0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	1.08	0.11	0.29	1.48
CS 52-1 6-13cm	0.3	< 0.2	0.2	0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.48	0.08	0.27	0.83
CS 52-1 49-54cm	0.3	< 0.2	0.1	0.6	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.30	0.03	0.14	0.46
CS 52-1 94-98cm	< 0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	0.03	< 0.1	0.74	0.08	0.40	1.22
CS 54-1 10-23cm	1.0	0.3	0.8	2.2	NA	NA	NA	NA	< 0.04	< 0.04	0.34	0.3	0.28	0.03	0.20	0.50
CS 56-1 13-18cm	0.6	< 0.2	0.3	1.0	NA	NA	NA	NA	< 0.04	0.05	0.11	0.2	0.65	0.08	0.31	1.04
CS 56-1 48-53cm	0.2	< 0.2	0.2	0.5	NA	NA	NA	NA	< 0.04	< 0.04	0.03	< 0.1	0.39	0.03	0.16	0.59
CS 58-1 10-22cm	0.4	< 0.2	0.3	0.9	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.38	0.07	0.18	0.63
REPEATS																
CS 1-1 0-10cm	0.3	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.12	0.24	0.65	1.0	2.21	0.51	3.56	6.29
CS 1-1 0-10cm REP	0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.11	< 0.04	0.79	0.9	2.26	0.51	3.78	6.55
CS 17-1B 70-75 cm	< 0.2	< 0.2	0.4	< 0.5	NA	NA	NA	NA	0.38	0.14	0.78	1.3	5.68	0.62	4.49	10.79
CS 17-1B 70-75 cm	< 0.2	< 0.2	0.8	0.9	NA	NA	NA	NA	0.38	0.09	0.81	1.3	5.78	0.58	4.61	10.97
CS 25-1 23-28cm	0.3	< 0.2	0.2	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.46	0.06	0.20	0.72
CS 25-1 23-28cm REP	0.2	< 0.2	0.2	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	0.05	< 0.1	0.43	0.06	0.23	0.72
CS 38-1 38-43cm	< 0.2	< 0.2	0.1	< 0.5	NA	NA	NA	NA	0.41	0.09	0.78	1.3	6.03	0.74	5.37	12.14
CS 38-1 38-43cm REP	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	0.40	0.15	0.82	1.4	5.97	0.75	5.16	11.88
CS 52-1 49-54cm	0.3	< 0.2	0.1	0.6	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.30	0.03	0.14	0.46
CS 52-1 49-54cm REP	0.3	< 0.2	0.1	0.6	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	0.28	0.03	0.13	0.43
CONTROLS																
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	< 0.04	0.05	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
LKSD-4	0.9	< 0.2	0.6	1.7	NA	NA	NA	NA	0.23	0.07	0.91	1.2	15.10	1.49	5.24	21.83
LKSD-4	0.9	< 0.2	0.6	1.7	NA	NA	NA	NA	0.22	< 0.04	0.99	1.2	14.61	1.54	5.41	21.57
LKSD-4	0.9	< 0.2	0.6	1.7	NA	NA	NA	NA	0.22	0.07	0.81	1.1	15.02	1.50	5.11	21.64
Provisional Values				2 ± 1												

	Ni	Ni	Ni	Ni	P	P	P	P	Pb	Pb	Pb	Pb	Pr	Pr	Pr	Pr
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.7	0.7	0.4	1.8	NA	NA	NA	NA	0.04	0.04	0.02	0.1	0.02	0.02	0.01	0.05
CS 1-1 0-10cm	5.6	1.7	13.5	20.8	NA	NA	NA	NA	0.43	0.17	0.80	1.4	0.54	0.13	0.94	1.60
CS 5-1 0-10cm	< 0.7	< 0.7	1.7	2.0	NA	NA	NA	NA	8.39	2.18	17.07	27.6	0.15	0.02	0.11	0.28
CS 9-1 0-10cm	< 0.7	< 0.7	1.4	< 1.8	NA	NA	NA	NA	4.61	1.27	9.33	15.2	0.07	< 0.02	0.04	0.11
CS 9-1 55-61cm	5.2	1.0	5.4	11.7	NA	NA	NA	NA	0.91	0.30	0.69	1.9	1.83	0.18	0.40	2.40
CS 11-1 0-10cm	< 0.7	< 0.7	1.5	< 1.8	NA	NA	NA	NA	3.70	1.06	5.76	10.5	0.11	< 0.02	0.05	0.18
CS 11-1 44-47cm	11.5	1.9	19.6	32.9	NA	NA	NA	NA	1.72	0.45	2.34	4.5	3.88	0.24	2.16	6.27
CS 13-1 0-5cm	< 0.7	< 0.7	1.3	< 1.8	NA	NA	NA	NA	5.55	1.54	3.44	10.5	0.08	< 0.02	0.05	0.14
CS 13-1 45-49cm	3.6	1.1	7.5	12.2	NA	NA	NA	NA	0.68	0.31	0.92	1.9	1.02	0.13	0.59	1.74
CS 17-1 0-5cm	< 0.7	< 0.7	1.9	1.9	NA	NA	NA	NA	0.23	0.05	0.42	0.7	0.08	< 0.02	0.04	0.13
CS 17-1B 70-75 cm	7.8	1.7	23.4	32.9	NA	NA	NA	NA	1.38	0.32	1.61	3.3	1.53	0.15	1.24	2.92
CS 19-1 0-10cm	< 0.7	< 0.7	1.5	< 1.8	NA	NA	NA	NA	8.29	3.12	11.22	22.6	0.11	< 0.02	0.09	0.21
CS 19-1 59-64cm	< 0.7	< 0.7	1.8	1.9	NA	NA	NA	NA	0.10	< 0.04	0.19	0.3	0.07	< 0.02	0.04	0.12
CS 21-1 0-10cm	< 0.7	< 0.7	1.4	< 1.8	NA	NA	NA	NA	4.38	1.87	7.60	13.9	0.13	0.02	0.10	0.25
CS 21-1 59-62cm	< 0.7	< 0.7	2.5	2.7	NA	NA	NA	NA	0.21	0.05	0.60	0.9	0.34	0.03	0.62	0.98
CS 21-1 89-94cm	< 0.7	< 0.7	3.6	4.2	NA	NA	NA	NA	0.28	0.07	0.49	0.8	0.48	0.06	0.22	0.76
CS 23-1 0-10cm	< 0.7	< 0.7	1.3	< 1.8	NA	NA	NA	NA	11.61	4.32	17.03	33.0	0.09	< 0.02	0.05	0.15
CS 25-1A 0-10cm	< 0.7	< 0.7	1.5	1.9	NA	NA	NA	NA	9.48	2.40	10.18	22.1	0.09	< 0.02	0.05	0.16
CS 25-1 23-28cm	< 0.7	< 0.7	3.2	3.9	NA	NA	NA	NA	0.85	0.24	0.93	2.0	0.11	< 0.02	0.05	0.18
CS 25-1 58-63cm	1.2	< 0.7	4.6	6.1	NA	NA	NA	NA	0.23	0.04	0.23	0.5	0.19	< 0.02	0.08	0.28
CS 27-1 0-5cm	< 0.7	< 0.7	1.8	2.0	NA	NA	NA	NA	1.80	0.63	6.79	9.2	0.11	< 0.02	0.07	0.19
CS 27-1 56-66cm	< 0.7	< 0.7	2.7	3.4	NA	NA	NA	NA	0.20	0.05	0.49	0.8	0.22	0.04	0.14	0.40
CS 38-1 28-33cm	1.1	< 0.7	4.6	6.1	NA	NA	NA	NA	0.69	0.17	0.64	1.5	0.84	0.10	0.26	1.20
CS 38-1 38-43cm	2.9	0.9	10.4	14.1	NA	NA	NA	NA	1.27	0.30	1.48	3.1	1.59	0.19	1.45	3.23
CS 42-1 0-8cm	< 0.7	< 0.7	1.8	< 1.8	NA	NA	NA	NA	6.68	2.16	10.44	19.3	0.10	< 0.02	0.04	0.16
CS 42-1 48-53cm	1.4	< 0.7	6.0	7.8	NA	NA	NA	NA	0.33	0.06	0.25	0.6	0.66	0.07	0.20	0.93
CS 42-1 85-95cm	2.0	< 0.7	23.0	25.4	NA	NA	NA	NA	2.46	0.73	3.54	6.7	1.13	0.09	1.77	2.99
CS 46-1 10-20cm	< 0.7	< 0.7	2.4	2.4	NA	NA	NA	NA	8.12	2.59	11.11	21.8	0.14	< 0.02	0.14	0.29
CS 46-1 50-60cm	< 0.7	< 0.7	2.5	2.7	NA	NA	NA	NA	0.28	0.05	0.32	0.7	0.09	< 0.02	0.05	0.14
CS 46-1 97-107cm	1.1	< 0.7	5.5	6.9	NA	NA	NA	NA	0.33	0.24	0.28	0.9	0.45	0.05	0.14	0.64
CS 48-1 12-18cm	< 0.7	< 0.7	1.5	< 1.8	NA	NA	NA	NA	4.87	1.29	11.00	17.2	0.11	< 0.02	0.06	0.18
CS 48-1 100-105cm	< 0.7	< 0.7	3.6	4.2	NA	NA	NA	NA	0.30	0.07	0.27	0.6	0.44	0.04	0.11	0.60
CS 50-1 15-23cm	< 0.7	< 0.7	1.7	< 1.8	NA	NA	NA	NA	9.22	3.20	17.74	30.2	0.14	< 0.02	0.11	0.26
CS 50-1 64-74cm	< 0.7	< 0.7	2.7	3.0	NA	NA	NA	NA	0.45	0.08	0.54	1.1	0.08	< 0.02	0.03	0.12
CS 50-1 104-114cm	1.0	< 0.7	5.3	6.5	NA	NA	NA	NA	0.33	0.06	0.28	0.7	0.29	0.03	0.08	0.39
CS 52-1 6-13cm	< 0.7	< 0.7	1.3	< 1.8	NA	NA	NA	NA	7.22	2.75	14.30	24.3	0.13	< 0.02	0.07	0.22
CS 52-1 49-54cm	< 0.7	< 0.7	2.5	2.6	NA	NA	NA	NA	0.16	< 0.04	0.22	0.4	0.08	< 0.02	0.04	0.12
CS 52-1 94-98cm	1.5	< 0.7	7.9	9.7	NA	NA	NA	NA	0.29	0.06	0.26	0.6	0.20	< 0.02	0.11	0.32
CS 54-1 10-23cm	< 0.7	< 0.7	1.6	< 1.8	NA	NA	NA	NA	0.51	0.13	1.12	1.8	0.07	< 0.02	0.05	0.13
CS 56-1 13-18cm	< 0.7	< 0.7	1.5	< 1.8	NA	NA	NA	NA	9.50	3.20	19.51	32.2	0.16	< 0.02	0.09	0.27
CS 56-1 48-53cm	< 0.7	< 0.7	3.4	3.4	NA	NA	NA	NA	0.15	< 0.04	0.27	0.4	0.10	< 0.02	0.04	0.14
CS 58-1 10-22cm	< 0.7	< 0.7	1.1	< 1.8	NA	NA	NA	NA	8.73	2.30	15.01	26.0	0.10	< 0.02	0.05	0.16
REPEATS																
CS 1-1 0-10cm	5.6	1.7	13.5	20.8	NA	NA	NA	NA	0.43	0.17	0.80	1.4	0.54	0.13	0.94	1.60
CS 1-1 0-10cm REP	5.4	1.8	14.0	21.2	NA	NA	NA	NA	0.46	0.18	0.82	1.5	0.54	0.13	0.99	1.66
CS 17-1B 70-75 cm	7.8	1.7	23.4	32.9	NA	NA	NA	NA	1.38	0.32	1.61	3.3	1.53	0.15	1.24	2.92
CS 17-1B 70-75 cm	7.8	1.8	32.8	42.3	NA	NA	NA	NA	1.44	0.32	1.62	3.4	1.55	0.15	1.26	2.95
CS 25-1 23-28cm	< 0.7	< 0.7	3.2	3.9	NA	NA	NA	NA	0.85	0.24	0.93	2.0	0.11	< 0.02	0.05	0.18
CS 25-1 23-28cm REP	< 0.7	< 0.7	3.2	3.7	NA	NA	NA	NA	0.78	0.23	0.94	1.9	0.10	< 0.02	0.06	0.17
CS 38-1 38-43cm	2.9	0.9	10.4	14.1	NA	NA	NA	NA	1.27	0.30	1.48	3.1	1.59	0.19	1.45	3.23
CS 38-1 38-43cm REP	2.7	0.8	10.2	13.7	NA	NA	NA	NA	1.25	0.30	1.45	3.0	1.57	0.18	1.43	3.18
CS 52-1 49-54cm	< 0.7	< 0.7	2.5	2.6	NA	NA	NA	NA	0.16	< 0.04	0.22	0.4	0.08	< 0.02	0.04	0.12
CS 52-1 49-54cm REP	< 0.7	< 0.7	2.5	2.6	NA	NA	NA	NA	0.15	< 0.04	0.20	0.4	0.07	< 0.02	0.03	0.11
CONTROLS																
BLANK	< 0.7	< 0.7	< 0.4	< 1.8	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.7	< 0.7	< 0.4	< 1.8	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.7	< 0.7	< 0.4	< 1.8	NA	NA	NA	NA	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
LKSD-4	6.8	1.3	21.8	29.8	NA	NA	NA	NA	51.85	7.31	22.66	81.8	3.77	0.35	1.36	5.48
LKSD-4	6.7	1.4	22.1	30.2	NA	NA	NA	NA	49.76	7.55	22.83	80.1	3.69	0.36	1.40	5.44
LKSD-4	6.6	1.3	21.3	29.2	NA	NA	NA	NA	51.00	7.46	22.18	80.6	3.82	0.35	1.32	5.50
Provisional Values				31 ± 5				1440 ± 182				89 ± 4				

	Rb	Rb	Rb	Rb	Re	Re	Re	Re	S	S	S	S	Sb	Sb	Sb	Sb
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.2	0.2	0.1	0.5	0.02	0.02	0.01	0.05	23	23	50	96	0.04	0.04	0.02	0.1
CS 1-1 0-10cm	< 0.2	0.3	9.0	9.5	< 0.02	< 0.02	< 0.01	< 0.05	351	139	831	1322	< 0.04	< 0.04	0.07	< 0.1
CS 5-1 0-10cm	0.4	< 0.2	0.9	1.4	< 0.02	< 0.02	< 0.01	< 0.05	149	60	1410	1618	< 0.04	0.04	0.35	0.4
CS 9-1 0-10cm	1.6	0.3	0.5	2.3	< 0.02	< 0.02	< 0.01	< 0.05	134	54	1395	1583	< 0.04	< 0.04	0.17	0.2
CS 9-1 55-61cm	< 0.2	< 0.2	2.0	2.3	< 0.02	< 0.02	< 0.01	< 0.05	412	115	1302	1828	< 0.04	< 0.04	0.06	< 0.1
CS 11-1 0-10cm	0.6	< 0.2	0.5	1.1	< 0.02	< 0.02	< 0.01	< 0.05	115	49	1275	1439	< 0.04	< 0.04	0.21	0.2
CS 11-1 44-47cm	1.8	1.6	23.3	26.7	< 0.02	< 0.02	< 0.01	< 0.05	347	69	723	1139	< 0.04	< 0.04	0.06	< 0.1
CS 13-1 0-5cm	0.7	< 0.2	1.2	2.1	< 0.02	< 0.02	< 0.01	< 0.05	144	65	1164	1373	< 0.04	< 0.04	0.12	< 0.1
CS 13-1 45-49cm	0.2	< 0.2	3.0	3.3	< 0.02	< 0.02	< 0.01	< 0.05	258	121	1445	1824	< 0.04	< 0.04	0.07	< 0.1
CS 17-1 0-5cm	< 0.2	< 0.2	0.4	0.6	< 0.02	< 0.02	< 0.01	< 0.05	78	45	1767	1891	< 0.04	< 0.04	0.06	< 0.1
CS 17-1B 70-75 cm	0.7	0.7	7.5	8.9	< 0.02	< 0.02	< 0.01	< 0.05	328	95	1184	1607	< 0.04	< 0.04	0.04	< 0.1
CS 19-1 0-10cm	1.3	0.3	1.7	3.3	< 0.02	< 0.02	< 0.01	< 0.05	200	97	2013	2309	< 0.04	< 0.04	0.22	< 0.1
CS 19-1 59-64cm	< 0.2	< 0.2	0.1	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	67	29	1325	1421	< 0.04	< 0.04	0.03	< 0.1
CS 21-1 0-10cm	1.3	0.3	1.3	2.8	< 0.02	< 0.02	< 0.01	< 0.05	287	139	2101	2527	0.04	0.08	0.20	0.3
CS 21-1 59-62cm	< 0.2	< 0.2	1.3	1.5	< 0.02	< 0.02	< 0.01	< 0.05	74	27	809	910	< 0.04	< 0.04	0.02	< 0.1
CS 21-1 89-94cm	< 0.2	< 0.2	1.1	1.2	< 0.02	< 0.02	< 0.01	< 0.05	154	66	1795	2015	< 0.04	< 0.04	0.05	< 0.1
CS 23-1 0-10cm	2.7	0.4	0.8	3.9	< 0.02	< 0.02	< 0.01	< 0.05	196	86	1648	1930	< 0.04	< 0.04	0.30	0.2
CS 25-1A 0-10cm	0.9	< 0.2	0.9	1.9	< 0.02	< 0.02	< 0.01	< 0.05	161	67	1571	1799	< 0.04	< 0.04	0.21	< 0.1
CS 25-1 23-28cm	< 0.2	< 0.2	0.3	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	139	65	1883	2087	< 0.04	< 0.04	0.07	< 0.1
CS 25-1 58-63cm	< 0.2	< 0.2	0.2	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	136	58	1735	1929	< 0.04	< 0.04	0.05	< 0.1
CS 27-1 0-5cm	0.4	< 0.2	0.6	1.1	< 0.02	< 0.02	< 0.01	< 0.05	208	78	2558	2844	< 0.04	< 0.04	0.24	0.3
CS 27-1 56-66cm	< 0.2	< 0.2	0.5	0.6	< 0.02	< 0.02	< 0.01	< 0.05	194	65	1556	1815	< 0.04	< 0.04	0.07	< 0.1
CS 38-1 28-33cm	< 0.2	< 0.2	1.6	1.8	< 0.02	< 0.02	< 0.01	< 0.05	151	84	1560	1795	< 0.04	< 0.04	0.09	< 0.1
CS 38-1 38-43cm	0.3	0.3	8.3	8.9	< 0.02	< 0.02	< 0.01	< 0.05	254	112	1280	1647	< 0.04	< 0.04	0.08	< 0.1
CS 42-1 0-8cm	0.9	< 0.2	0.6	1.7	< 0.02	< 0.02	< 0.01	< 0.05	142	59	1715	1917	< 0.04	< 0.04	0.23	0.1
CS 42-1 48-53cm	< 0.2	< 0.2	0.5	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	134	58	1748	1940	< 0.04	< 0.04	0.06	< 0.1
CS 42-1 85-95cm	0.4	0.3	5.1	5.8	< 0.02	< 0.02	< 0.01	< 0.05	139	46	791	975	< 0.04	< 0.04	0.07	< 0.1
CS 46-1 10-20cm	1.3	0.4	3.3	5.0	< 0.02	< 0.02	< 0.01	< 0.05	189	83	2306	2578	< 0.04	< 0.04	0.25	0.1
CS 46-1 50-60cm	< 0.2	< 0.2	0.2	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	76	33	1667	1775	< 0.04	< 0.04	0.04	< 0.1
CS 46-1 97-107cm	< 0.2	< 0.2	0.3	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	140	58	1684	1883	< 0.04	< 0.04	0.06	< 0.1
CS 48-1 12-18cm	1.1	0.2	1.1	2.5	< 0.02	< 0.02	< 0.01	< 0.05	192	66	2328	2585	< 0.04	< 0.04	0.29	< 0.1
CS 48-1 100-105cm	< 0.2	< 0.2	0.2	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	123	49	1685	1857	0.06	0.06	0.05	0.2
CS 50-1 15-23cm	0.6	< 0.2	1.4	2.2	< 0.02	< 0.02	< 0.01	< 0.05	164	69	1984	2218	< 0.04	< 0.04	0.27	0.2
CS 50-1 64-74cm	< 0.2	< 0.2	0.1	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	68	26	1486	1580	< 0.04	< 0.04	0.04	< 0.1
CS 50-1 104-114cm	< 0.2	< 0.2	0.1	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	145	50	1727	1922	< 0.04	< 0.04	0.05	< 0.1
CS 52-1 6-13cm	0.4	< 0.2	0.8	1.3	< 0.02	< 0.02	< 0.01	< 0.05	191	71	2266	2528	< 0.04	< 0.04	0.29	0.2
CS 52-1 49-54cm	0.2	< 0.2	0.2	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	82	29	1726	1837	< 0.04	< 0.04	0.04	< 0.1
CS 52-1 94-98cm	< 0.2	< 0.2	1.2	1.3	< 0.02	< 0.02	< 0.01	< 0.05	123	48	1681	1852	< 0.04	< 0.04	0.04	< 0.1
CS 54-1 10-23cm	< 0.2	< 0.2	0.4	0.5	< 0.02	< 0.02	< 0.01	< 0.05	124	58	2324	2506	< 0.04	< 0.04	0.13	0.2
CS 56-1 13-18cm	0.5	< 0.2	1.2	1.9	< 0.02	< 0.02	< 0.01	< 0.05	352	121	3566	4040	< 0.04	< 0.04	0.30	0.3
CS 56-1 48-53cm	0.2	< 0.2	0.3	0.6	< 0.02	< 0.02	< 0.01	< 0.05	75	29	1536	1640	< 0.04	< 0.04	0.04	< 0.1
CS 58-1 10-22cm	1.6	0.3	0.9	2.7	< 0.02	< 0.02	< 0.01	< 0.05	337	89	2609	3035	< 0.04	< 0.04	0.29	0.2
REPEATS																
CS 1-1 0-10cm	< 0.2	0.3	9.0	9.5	< 0.02	< 0.02	< 0.01	< 0.05	351	139	831	1322	< 0.04	< 0.04	0.07	< 0.1
CS 1-1 0-10cm REP	< 0.2	0.3	9.3	9.7	< 0.02	< 0.02	< 0.01	< 0.05	338	142	827	1307	< 0.04	< 0.04	0.07	< 0.1
CS 17-1B 70-75 cm	0.7	0.7	7.5	8.9	< 0.02	< 0.02	< 0.01	< 0.05	328	95	1184	1607	< 0.04	< 0.04	0.04	< 0.1
CS 17-1B 70-75 cm	0.7	0.7	7.9	9.2	< 0.02	< 0.02	< 0.01	< 0.05	317	97	1198	1612	< 0.04	< 0.04	0.05	< 0.1
CS 25-1 23-28cm	< 0.2	< 0.2	0.3	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	139	65	1883	2087	< 0.04	< 0.04	0.07	< 0.1
CS 25-1 23-28cm REP	< 0.2	< 0.2	0.3	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	133	67	1914	2113	< 0.04	< 0.04	0.06	< 0.1
CS 38-1 38-43cm	0.3	0.3	8.3	8.9	< 0.02	< 0.02	< 0.01	< 0.05	254	112	1280	1647	< 0.04	< 0.04	0.08	< 0.1
CS 38-1 38-43cm REP	0.3	0.3	8.3	9.0	< 0.02	< 0.02	< 0.01	< 0.05	257	109	1264	1631	< 0.04	< 0.04	0.08	< 0.1
CS 52-1 49-54cm	0.2	< 0.2	0.2	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	82	29	1726	1837	< 0.04	< 0.04	0.04	< 0.1
CS 52-1 49-54cm REP	0.2	< 0.2	0.2	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	83	30	1637	1750	< 0.04	< 0.04	0.04	< 0.1
CONTROLS																
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	< 23	< 23	< 50	< 96	< 0.04	< 0.04	< 0.02	< 0.1
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	< 23	< 23	< 50	< 96	< 0.04	< 0.04	< 0.02	< 0.1
BLANK	< 0.2	< 0.2	< 0.1	< 0.5	< 0.02	< 0.02	< 0.01	< 0.05	< 23	< 23	< 50	< 96	< 0.04	< 0.04	< 0.02	< 0.1
LKSD-4	0.7	0.4	8.5	9.6	< 0.02	< 0.02	< 0.01	< 0.05	3580	320	5572	9473	0.29	0.19	0.70	1.2
LKSD-4	0.7	0.4	8.7	9.7	< 0.02	< 0.02	< 0.01	< 0.05	3642	335	5649	9627	0.27	0.19	0.73	1.2
LKSD-4	0.7	0.4	8.3	9.4	< 0.02	< 0.02	< 0.01	< 0.05	3660	316	5661	9636	0.29	0.19	0.70	1.2
Provisional Values																1.5 ± 0.6

	Sc ICP-ES 0.1M Na4P2O7 1st 1hr. ppm	Sc ICP-ES 0.1M Na4P2O7 2nd 1hr. ppm	Sc ICP-ES Aqua Regia ppm	Sc ICP-ES SUM ppm	Se ICP-MS 0.1M Na4P2O7 1st 1hr. ppm	Se ICP-MS 0.1M Na4P2O7 2nd 1hr. ppm	Se ICP-MS Aqua Regia ppm	Se ICP-MS SUM ppm	Si ICP-ES 0.1M Na4P2O7 1st 1hr. ppm	Si ICP-ES 0.1M Na4P2O7 2nd 1hr. ppm	Si ICP-ES Aqua Regia ppm	Si ICP-ES SUM ppm	Sm ICP-MS 0.1M Na4P2O7 1st 1hr. ppm	Sm ICP-MS 0.1M Na4P2O7 2nd 1hr. ppm	Sm ICP-MS Aqua Regia ppm	Sm ICP-MS SUM ppm
D.L.	0.5	0.5	1	2	4	4	2	10	9	9	20	38	0.02	0.02	0.01	0.05
CS 1-1 0-10cm	< 0.5	< 0.5	1	< 2	< 4	< 4	< 2	< 10	305	378	465	1149	0.43	0.10	0.64	1.17
CS 5-1 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	296	330	924	1550	0.12	< 0.02	0.07	0.20
CS 9-1 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	230	144	633	1007	0.06	< 0.02	0.02	0.09
CS 9-1 55-61cm	0.8	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	91	110	671	872	1.25	0.13	0.24	1.62
CS 11-1 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	43	42	574	659	0.09	< 0.02	0.04	0.14
CS 11-1 44-47cm	2.2	< 0.5	2	5	< 4	< 4	< 2	< 10	2548	2204	438	5190	2.29	0.15	1.24	3.68
CS 13-1 0-5cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	128	83	499	710	0.06	< 0.02	0.03	0.10
CS 13-1 45-49cm	0.7	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	127	170	778	1075	0.68	0.10	0.36	1.13
CS 17-1 0-5cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	23	10	326	358	0.06	< 0.02	0.03	0.09
CS 17-1B 70-75 cm	1.7	< 0.5	1	3	< 4	< 4	< 2	< 10	1281	1225	573	3079	0.99	0.11	0.72	1.82
CS 19-1 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	156	55	845	1056	0.10	< 0.02	0.06	0.17
CS 19-1 59-64cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	13	< 9	192	210	0.05	< 0.02	0.03	0.09
CS 21-1 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	142	45	797	983	0.12	0.02	0.07	0.20
CS 21-1 59-62cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	76	49	490	615	0.23	0.02	0.43	0.68
CS 21-1 89-94cm	0.6	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	75	95	958	1127	0.38	0.05	0.15	0.58
CS 23-1 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	206	65	675	945	0.08	< 0.02	0.03	0.12
CS 25-1A 0-10cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	106	68	725	900	0.08	< 0.02	0.04	0.13
CS 25-1 23-28cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	40	11	420	470	0.10	< 0.02	0.05	0.15
CS 25-1 58-63cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	27	10	402	439	0.15	< 0.02	0.05	0.22
CS 27-1 0-5cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	94	51	587	733	0.10	< 0.02	0.05	0.17
CS 27-1 56-66cm	0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	35	29	734	798	0.19	0.03	0.10	0.33
CS 38-1 28-33cm	0.7	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	58	45	884	987	0.59	0.08	0.17	0.84
CS 38-1 38-43cm	2.1	< 0.5	1	4	< 4	< 4	< 2	< 10	348	553	647	1548	1.11	0.15	0.88	2.14
CS 42-1 0-8cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	146	50	670	867	0.08	< 0.02	0.03	0.12
CS 42-1 48-53cm	0.6	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	29	12	846	887	0.48	0.05	0.13	0.65
CS 42-1 85-95cm	0.9	< 0.5	3	4	< 4	< 4	< 2	< 10	447	437	715	1598	0.82	0.06	1.24	2.12
CS 46-1 10-20cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	191	61	763	1014	0.12	< 0.02	0.08	0.22
CS 46-1 50-60cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	20	< 9	277	302	0.07	< 0.02	0.03	0.11
CS 46-1 97-107cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	21	17	557	595	0.32	0.04	0.10	0.45
CS 48-1 12-18cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	132	41	746	919	0.09	< 0.02	0.05	0.15
CS 48-1 100-105cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	25	10	340	375	0.31	0.03	0.08	0.42
CS 50-1 15-23cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	124	54	830	1007	0.12	< 0.02	0.08	0.22
CS 50-1 64-74cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	16	< 9	186	207	0.06	< 0.02	0.02	0.09
CS 50-1 104-114cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	26	< 9	285	318	0.21	0.02	0.05	0.28
CS 52-1 6-13cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	95	45	859	998	0.10	< 0.02	0.05	0.17
CS 52-1 49-54cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	35	12	209	256	0.07	< 0.02	0.03	0.10
CS 52-1 94-98cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	83	43	767	894	0.14	< 0.02	0.07	0.23
CS 54-1 10-23cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	44	15	469	528	0.06	< 0.02	0.04	0.11
CS 56-1 13-18cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	85	46	886	1017	0.13	< 0.02	0.06	0.20
CS 56-1 48-53cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	25	< 9	231	261	0.08	< 0.02	0.03	0.12
CS 58-1 10-22cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	20	50	735	805	0.09	< 0.02	0.03	0.13
REPEATS																
CS 1-1 0-10cm	< 0.5	< 0.5	1	< 2	< 4	< 4	< 2	< 10	305	378	465	1149	0.43	0.10	0.64	1.17
CS 1-1 0-10cm REP	< 0.5	< 0.5	1	< 2	< 4	< 4	< 2	< 10	287	343	518	1148	0.44	0.11	0.67	1.21
CS 17-1B 70-75 cm	1.7	< 0.5	1	3	< 4	< 4	< 2	< 10	1281	1225	573	3079	0.99	0.11	0.72	1.82
CS 17-1B 70-75 cm	1.7	< 0.5	2	4	< 4	< 4	< 2	< 10	1213	1196	639	3049	1.02	0.11	0.76	1.89
CS 25-1 23-28cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	40	11	420	470	0.10	< 0.02	0.05	0.15
CS 25-1 23-28cm REP	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	40	10	441	491	0.09	< 0.02	0.04	0.14
CS 38-1 38-43cm	2.1	< 0.5	1	4	< 4	< 4	< 2	< 10	348	553	647	1548	1.11	0.15	0.88	2.14
CS 38-1 38-43cm REP	2.2	< 0.5	1	4	< 4	< 4	< 2	< 10	355	578	696	1628	1.11	0.14	0.86	2.11
CS 52-1 49-54cm	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	35	12	209	256	0.07	< 0.02	0.03	0.10
CS 52-1 49-54cm REP	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	34	13	186	233	0.06	< 0.02	0.02	0.09
CONTROLS																
BLANK	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	< 9	< 9	< 20	< 38	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	< 9	< 9	< 20	< 38	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.5	< 0.5	< 1	< 2	< 4	< 4	< 2	< 10	< 9	< 9	< 20	< 38	< 0.02	< 0.02	< 0.01	< 0.05
LKSD-4	2.6	< 0.5	1	4	< 4	< 4	< 2	< 10	632	614	326	1571	2.89	0.29	0.92	4.10
LKSD-4	2.7	< 0.5	2	5	< 4	< 4	< 2	< 10	627	640	378	1645	2.88	0.29	0.96	4.13
LKSD-4	2.6	< 0.5	2	5	< 4	< 4	< 2	< 10	630	624	250	1503	2.96	0.29	0.92	4.17

Provisional Values

	Sn	Sn	Sn	Sn	Sr	Sr	Sr	Sr	Ta	Ta	Ta	Ta	Tb	Tb	Tb	Tb
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM	0.1M Na4P2O7 1st 1hr.	0.1M Na4P2O7 2nd 1hr.	Aqua Regia	SUM
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.04	0.04	0.02	0.1	0.5	0.5	1	2	0.04	0.04	0.02	0.1	0.02	0.02	0.01	0.05
CS 1-1 0-10cm	< 0.04	0.14	0.17	0.3	29.2	10.5	13	53	0.10	0.04	< 0.02	0.2	0.05	< 0.02	0.07	0.13
CS 5-1 0-10cm	< 0.04	0.14	0.19	0.4	30.3	5.6	4	40	0.15	0.07	0.05	0.3	< 0.02	< 0.02	< 0.01	< 0.05
CS 9-1 0-10cm	< 0.04	0.13	0.08	0.2	22.3	5.0	4	31	0.09	0.04	0.02	0.2	< 0.02	< 0.02	< 0.01	< 0.05
CS 9-1 55-61cm	0.05	0.15	0.08	0.3	35.0	6.6	5	46	0.09	0.04	< 0.02	0.1	0.14	< 0.02	0.03	0.18
CS 11-1 0-10cm	< 0.04	0.14	0.11	0.3	19.2	4.6	3	27	0.08	< 0.04	< 0.02	0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 11-1 44-47cm	0.11	0.21	0.37	0.7	37.6	3.4	6	47	0.10	0.05	< 0.02	0.2	0.26	< 0.02	0.11	0.39
CS 13-1 0-5cm	< 0.04	0.14	0.07	0.2	11.0	1.8	< 1	14	0.08	< 0.04	< 0.02	0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 13-1 45-49cm	< 0.04	0.14	0.12	0.3	30.1	6.9	6	43	0.07	< 0.04	< 0.02	0.1	0.08	< 0.02	0.03	0.13
CS 17-1 0-5cm	< 0.04	0.13	0.04	0.2	16.2	3.3	4	23	0.06	< 0.04	< 0.02	0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 17-1B 70-75 cm	0.12	0.18	0.34	0.6	34.1	4.8	6	44	0.08	< 0.04	< 0.02	0.1	0.12	< 0.02	0.07	0.20
CS 19-1 0-10cm	< 0.04	0.13	0.18	0.3	15.5	4.1	5	24	0.06	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 19-1 59-64cm	< 0.04	0.13	0.03	0.2	18.9	3.3	3	25	0.05	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 21-1 0-10cm	< 0.04	0.12	0.11	0.3	18.0	6.1	6	30	0.09	0.05	< 0.02	0.2	< 0.02	< 0.02	< 0.01	< 0.05
CS 21-1 59-62cm	< 0.04	0.18	0.07	0.3	10.7	1.6	2	14	0.06	0.04	< 0.02	0.1	0.03	< 0.02	0.05	0.08
CS 21-1 89-94cm	< 0.04	0.16	0.11	0.3	19.5	4.5	4	28	0.05	< 0.04	< 0.02	< 0.1	0.05	< 0.02	0.02	0.07
CS 23-1 0-10cm	< 0.04	0.13	0.12	0.3	15.5	4.1	4	23	0.05	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 25-1A 0-10cm	< 0.04	0.13	0.13	0.3	17.1	4.0	3	24	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 25-1 23-28cm	< 0.04	0.13	0.03	0.2	22.5	6.6	7	36	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 25-1 58-63cm	< 0.04	0.13	0.03	0.2	27.3	6.6	6	40	< 0.04	< 0.04	< 0.02	< 0.1	0.02	< 0.02	< 0.01	< 0.05
CS 27-1 0-5cm	< 0.04	0.13	0.10	0.3	25.0	8.6	9	43	0.06	0.05	0.06	0.2	< 0.02	< 0.02	< 0.01	< 0.05
CS 27-1 56-66cm	< 0.04	0.13	0.06	0.2	40.6	13.9	17	72	< 0.04	< 0.04	0.03	0.1	0.03	< 0.02	0.01	< 0.05
CS 38-1 28-33cm	< 0.04	0.16	0.07	0.3	23.9	5.0	4	33	< 0.04	< 0.04	< 0.02	< 0.1	0.07	< 0.02	0.02	0.10
CS 38-1 38-43cm	0.07	0.19	0.26	0.5	22.9	3.6	6	32	0.06	< 0.04	< 0.02	< 0.1	0.14	< 0.02	0.08	0.23
CS 42-1 0-8cm	< 0.04	0.13	0.12	0.3	17.8	3.7	4	25	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 42-1 48-53cm	< 0.04	0.15	0.05	0.2	27.6	5.6	4	37	< 0.04	< 0.04	< 0.02	< 0.1	0.06	< 0.02	0.01	0.08
CS 42-1 85-95cm	0.05	0.16	0.32	0.5	15.1	1.8	3	20	0.04	< 0.04	< 0.02	< 0.1	0.10	< 0.02	0.12	0.23
CS 46-1 10-20cm	< 0.04	0.12	0.16	0.3	15.4	3.5	4	23	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 46-1 50-60cm	< 0.04	0.14	0.03	0.2	21.1	4.5	4	30	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 46-1 97-107cm	< 0.04	0.12	0.04	0.2	32.3	5.9	4	42	< 0.04	< 0.04	< 0.02	< 0.1	0.04	< 0.02	< 0.01	0.05
CS 48-1 12-18cm	< 0.04	0.12	0.10	0.2	15.0	3.6	4	22	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 48-1 100-105cm	< 0.04	0.13	0.05	0.2	31.8	6.6	5	43	0.06	< 0.04	< 0.02	0.1	0.04	< 0.02	< 0.01	< 0.05
CS 50-1 15-23cm	< 0.04	0.15	0.17	0.3	18.8	4.5	5	28	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 50-1 64-74cm	< 0.04	0.14	0.06	0.2	27.6	5.4	4	37	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 50-1 104-114cm	< 0.04	0.14	0.03	0.2	31.8	6.3	4	42	< 0.04	< 0.04	< 0.02	< 0.1	0.02	< 0.02	< 0.01	< 0.05
CS 52-1 6-13cm	< 0.04	0.14	0.17	0.3	23.8	5.1	6	35	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 49-54cm	< 0.04	0.13	0.02	0.2	31.5	6.7	5	43	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 94-98cm	< 0.04	0.14	0.05	0.2	34.9	6.6	4	46	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 54-1 10-23cm	< 0.04	0.13	0.05	0.2	22.2	4.8	5	32	0.05	0.04	0.06	0.2	< 0.02	< 0.02	< 0.01	< 0.05
CS 56-1 13-18cm	< 0.04	0.14	0.18	0.4	22.9	4.4	5	32	< 0.04	< 0.04	0.03	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 56-1 48-53cm	< 0.04	0.11	0.03	0.2	28.0	5.8	4	38	< 0.04	< 0.04	0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 58-1 10-22cm	< 0.04	0.15	0.12	0.3	22.3	4.0	4	30	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
REPEATS																
CS 1-1 0-10cm	< 0.04	0.14	0.17	0.3	29.2	10.5	13	53	0.10	0.04	< 0.02	0.2	0.05	< 0.02	0.07	0.13
CS 1-1 0-10cm REP	0.05	0.16	0.17	0.4	29.6	10.4	13	53	0.06	< 0.04	< 0.02	< 0.1	0.05	< 0.02	0.07	0.14
CS 17-1B 70-75 cm	0.12	0.18	0.34	0.6	34.1	4.8	6	44	0.08	< 0.04	< 0.02	0.1	0.12	< 0.02	0.07	0.20
CS 17-1B 70-75 cm	0.12	0.21	0.37	0.7	33.9	4.8	6	45	0.07	< 0.04	< 0.02	0.1	0.13	< 0.02	0.07	0.21
CS 25-1 23-28cm	< 0.04	0.13	0.03	0.2	22.5	6.6	7	36	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 25-1 23-28cm REP	< 0.04	0.14	0.05	0.2	22.7	6.5	7	36	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 38-1 38-43cm	0.07	0.19	0.26	0.5	22.9	3.6	6	32	0.06	< 0.04	< 0.02	< 0.1	0.14	< 0.02	0.08	0.23
CS 38-1 38-43cm REP	0.07	0.19	0.28	0.5	22.7	3.5	5	32	0.05	< 0.04	< 0.02	< 0.1	0.13	< 0.02	0.07	0.22
CS 52-1 49-54cm	< 0.04	0.13	0.02	0.2	31.5	6.7	5	43	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 49-54cm REP	< 0.04	0.14	0.03	0.2	30.9	6.5	5	42	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
CONTROLS																
BLANK	0.10	0.26	< 0.02	0.3	< 0.5	< 0.5	< 1	< 2	0.07	< 0.04	< 0.02	0.1	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	0.10	0.21	< 0.02	0.3	< 0.5	< 0.5	< 1	< 2	0.05	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	0.10	0.22	< 0.02	0.3	< 0.5	< 0.5	< 1	< 2	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05
LKSD-4	1.20	0.44	1.58	3.2	24.7	4.5	9	38	0.05	< 0.04	< 0.02	< 0.1	0.37	0.04	0.11	0.52
LKSD-4	1.20	0.45	1.59	3.2	25.4	4.6	9	39	0.04	< 0.04	< 0.02	< 0.1	0.36	0.04	0.11	0.52
LKSD-4	1.19	0.47	1.52	3.2	25.4	4.5	8	38	< 0.04	< 0.04	< 0.02	< 0.1	0.37	0.04	0.11	0.52
Provisional Values								41 ± 5								

	Te	Te	Te	Te	Th	Th	Th	Th	Ti	Ti	Ti	Ti	Tl	Tl	Tl	Tl
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.07	0.07	0.04	0.18	0.07	0.07	0.04	0.18	1	1	2	4	0.02	0.02	0.01	0.05
CS 1-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.34	0.08	0.62	1.04	54	18	272	344	< 0.02	0.02	0.07	0.10
CS 5-1 0-10cm	< 0.07	0.11	< 0.04	< 0.18	0.23	< 0.07	0.21	0.45	5	< 1	34	40	< 0.02	< 0.02	0.03	< 0.05
CS 9-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.08	< 0.07	0.07	< 0.18	2	< 1	11	12	< 0.02	< 0.02	0.02	< 0.05
CS 9-1 55-61cm	< 0.07	< 0.07	< 0.04	< 0.18	0.77	0.12	0.28	1.17	86	20	52	158	< 0.02	< 0.02	0.02	< 0.05
CS 11-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.14	< 0.07	0.06	0.21	5	2	16	23	< 0.02	< 0.02	< 0.01	< 0.05
CS 11-1 44-47cm	< 0.07	< 0.07	< 0.04	< 0.18	2.15	0.27	1.85	4.27	186	56	639	881	< 0.02	< 0.02	0.15	0.14
CS 13-1 0-5cm	< 0.07	< 0.07	< 0.04	< 0.18	0.09	< 0.07	0.12	0.20	4	2	21	26	< 0.02	< 0.02	< 0.01	< 0.05
CS 13-1 45-49cm	< 0.07	< 0.07	< 0.04	< 0.18	0.70	0.15	0.52	1.36	86	33	104	222	< 0.02	< 0.02	0.02	< 0.05
CS 17-1 0-5cm	< 0.07	< 0.07	< 0.04	< 0.18	0.07	< 0.07	0.06	< 0.18	2	1	14	18	< 0.02	< 0.02	< 0.01	< 0.05
CS 17-1B 70-75 cm	< 0.07	< 0.07	< 0.04	< 0.18	1.66	0.31	1.14	3.11	192	60	273	524	< 0.02	< 0.02	0.05	< 0.05
CS 19-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.17	< 0.07	0.13	0.31	6	3	23	32	< 0.02	< 0.02	0.01	< 0.05
CS 19-1 59-64cm	< 0.07	< 0.07	< 0.04	< 0.18	0.08	< 0.07	0.05	< 0.18	4	2	13	19	< 0.02	< 0.02	< 0.01	< 0.05
CS 21-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.18	< 0.07	0.11	0.32	8	2	23	33	0.35	0.20	0.02	0.57
CS 21-1 59-62cm	< 0.07	< 0.07	< 0.04	< 0.18	0.26	< 0.07	0.46	0.77	23	6	97	126	0.04	0.02	< 0.01	0.07
CS 21-1 89-94cm	< 0.07	< 0.07	< 0.04	< 0.18	0.51	0.12	0.30	0.92	44	17	77	137	< 0.02	< 0.02	< 0.01	< 0.05
CS 23-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.14	< 0.07	0.05	0.20	4	2	12	18	0.05	< 0.02	0.06	0.12
CS 25-1A 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.13	< 0.07	0.08	0.20	3	< 1	16	19	< 0.02	< 0.02	0.01	< 0.05
CS 25-1 23-28cm	< 0.07	< 0.07	< 0.04	< 0.18	0.17	< 0.07	0.05	0.22	8	3	14	25	< 0.02	< 0.02	< 0.01	< 0.05
CS 25-1 58-63cm	< 0.07	< 0.07	< 0.04	< 0.18	0.25	< 0.07	0.06	0.33	12	6	20	38	< 0.02	< 0.02	< 0.01	< 0.05
CS 27-1 0-5cm	0.08	0.11	< 0.04	0.21	0.16	< 0.07	0.20	0.37	3	< 1	21	24	< 0.02	< 0.02	0.01	< 0.05
CS 27-1 56-66cm	< 0.07	< 0.07	< 0.04	< 0.18	0.35	< 0.07	0.20	0.60	13	4	39	56	< 0.02	< 0.02	0.01	< 0.05
CS 38-1 28-33cm	< 0.07	< 0.07	< 0.04	< 0.18	0.57	0.09	0.21	0.87	49	20	63	131	< 0.02	< 0.02	0.02	< 0.05
CS 38-1 38-43cm	< 0.07	< 0.07	< 0.04	< 0.18	1.67	0.36	1.30	3.34	211	74	224	509	< 0.02	< 0.02	0.07	0.05
CS 42-1 0-8cm	< 0.07	< 0.07	< 0.04	< 0.18	0.14	< 0.07	0.07	0.21	4	< 1	16	20	< 0.02	< 0.02	< 0.01	< 0.05
CS 42-1 48-53cm	< 0.07	< 0.07	< 0.04	< 0.18	0.60	0.11	0.21	0.92	36	14	37	87	< 0.02	< 0.02	< 0.01	< 0.05
CS 42-1 85-95cm	< 0.07	< 0.07	< 0.04	< 0.18	0.99	0.12	1.44	2.55	63	20	662	745	< 0.02	< 0.02	0.04	< 0.05
CS 46-1 10-20cm	< 0.07	< 0.07	< 0.04	< 0.18	0.22	< 0.07	0.16	0.39	7	2	55	63	< 0.02	< 0.02	0.01	< 0.05
CS 46-1 50-60cm	< 0.07	< 0.07	< 0.04	< 0.18	0.10	< 0.07	0.06	< 0.18	6	3	14	24	< 0.02	< 0.02	< 0.01	< 0.05
CS 46-1 97-107cm	< 0.07	< 0.07	< 0.04	< 0.18	0.44	< 0.07	0.14	0.65	29	10	28	67	< 0.02	< 0.02	< 0.01	< 0.05
CS 48-1 12-18cm	< 0.07	< 0.07	< 0.04	< 0.18	0.12	< 0.07	0.05	< 0.18	2	1	17	20	< 0.02	< 0.02	< 0.01	< 0.05
CS 48-1 100-105cm	< 0.07	< 0.07	< 0.04	< 0.18	0.33	< 0.07	0.11	0.49	16	6	22	45	0.33	0.17	< 0.01	0.50
CS 50-1 15-23cm	< 0.07	< 0.07	< 0.04	< 0.18	0.19	< 0.07	0.08	0.29	5	< 1	38	44	0.08	0.06	< 0.01	0.15
CS 50-1 64-74cm	< 0.07	< 0.07	< 0.04	< 0.18	0.09	< 0.07	0.09	0.18	4	1	11	16	< 0.02	< 0.02	< 0.01	< 0.05
CS 50-1 104-114cm	< 0.07	< 0.07	< 0.04	< 0.18	0.25	< 0.07	0.07	0.35	12	5	14	31	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 6-13cm	< 0.07	< 0.07	< 0.04	< 0.18	0.19	< 0.07	< 0.04	0.22	4	< 1	25	30	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 49-54cm	< 0.07	< 0.07	< 0.04	< 0.18	0.11	< 0.07	< 0.04	< 0.18	5	2	14	20	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 94-98cm	< 0.07	< 0.07	< 0.04	< 0.18	0.30	< 0.07	0.09	0.44	17	7	43	66	< 0.02	< 0.02	< 0.01	< 0.05
CS 54-1 10-23cm	0.08	0.10	< 0.04	0.18	0.11	< 0.07	0.20	0.31	3	< 1	17	20	0.03	< 0.02	< 0.01	< 0.05
CS 56-1 13-18cm	< 0.07	< 0.07	< 0.04	< 0.18	0.28	< 0.07	0.09	0.38	5	< 1	28	33	< 0.02	< 0.02	0.02	< 0.05
CS 56-1 48-53cm	< 0.07	< 0.07	< 0.04	< 0.18	0.12	< 0.07	0.05	< 0.18	4	1	13	19	< 0.02	< 0.02	< 0.01	< 0.05
CS 58-1 10-22cm	< 0.07	< 0.07	< 0.04	< 0.18	0.16	< 0.07	< 0.04	< 0.18	3	< 1	16	20	< 0.02	< 0.02	0.02	< 0.05
REPEATS																
CS 1-1 0-10cm	< 0.07	< 0.07	< 0.04	< 0.18	0.34	0.08	0.62	1.04	54	18	272	344	< 0.02	0.02	0.07	0.10
CS 1-1 0-10cm REP	< 0.07	< 0.07	< 0.04	< 0.18	0.36	0.09	0.65	1.09	53	19	284	356	< 0.02	< 0.02	0.07	< 0.05
CS 17-1B 70-75 cm	< 0.07	< 0.07	< 0.04	< 0.18	1.66	0.31	1.14	3.11	192	60	273	524	< 0.02	< 0.02	0.05	< 0.05
CS 17-1B 70-75 cm	< 0.07	< 0.07	< 0.04	< 0.18	1.69	0.31	1.23	3.24	190	61	288	538	< 0.02	< 0.02	0.05	< 0.05
CS 25-1 23-28cm	< 0.07	< 0.07	< 0.04	< 0.18	0.17	< 0.07	0.05	0.22	8	3	14	25	< 0.02	< 0.02	< 0.01	< 0.05
CS 25-1 23-28cm REP	< 0.07	< 0.07	< 0.04	< 0.18	0.18	< 0.07	0.05	0.24	8	3	14	25	< 0.02	0.02	< 0.01	< 0.05
CS 38-1 38-43cm	< 0.07	< 0.07	< 0.04	< 0.18	1.67	0.36	1.30	3.34	211	74	224	509	< 0.02	< 0.02	0.07	0.05
CS 38-1 38-43cm REP	< 0.07	< 0.07	< 0.04	< 0.18	1.71	0.37	1.27	3.35	211	74	222	507	< 0.02	< 0.02	0.07	0.06
CS 52-1 49-54cm	< 0.07	< 0.07	< 0.04	< 0.18	0.11	< 0.07	< 0.04	< 0.18	5	2	14	20	< 0.02	< 0.02	< 0.01	< 0.05
CS 52-1 49-54cm REP	< 0.07	< 0.07	< 0.04	< 0.18	0.10	< 0.07	< 0.04	< 0.18	5	2	11	18	< 0.02	< 0.02	< 0.01	< 0.05
CONTROLS																
BLANK	< 0.07	< 0.07	< 0.04	< 0.18	< 0.07	< 0.07	< 0.04	< 0.18	< 1	< 1	< 2	< 4	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.07	< 0.07	< 0.04	< 0.18	< 0.07	< 0.07	< 0.04	< 0.18	< 1	< 1	< 2	< 4	< 0.02	< 0.02	< 0.01	< 0.05
BLANK	< 0.07	< 0.07	< 0.04	< 0.18	< 0.07	< 0.07	< 0.04	< 0.18	< 1	< 1	< 2	< 4	< 0.02	< 0.02	< 0.01	< 0.05
LKSD-4	< 0.07	< 0.07	0.07	< 0.18	1.95	0.27	1.41	3.64	71	28	560	659	0.20	< 0.02	0.14	0.36
LKSD-4	< 0.07	< 0.07	0.07	< 0.18	2.04	0.29	1.41	3.73	71	29	557	657	0.20	0.04	0.13	0.38
LKSD-4	< 0.07	< 0.07	0.06	< 0.18	2.08	0.28	1.34	3.70	73	28	550	650	0.19	0.02	0.13	0.34
Provisional Values												660 ± 86				

	Tm	Tm	Tm	Tm	U	U	U	U	V	V	V	V	W	W	W	W
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-ES	ICP-ES	ICP-ES	ICP-ES	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.02	0.02	0.01	0.05	0.02	0.02	0.01	0.05	1	1	2	4	0.04	0.04	0.02	0.1
CS 1-1 0-10cm	< 0.02	< 0.02	0.02	< 0.05	3.11	0.38	0.51	4.00	17	2	12	31	0.06	< 0.04	< 0.02	< 0.1
CS 5-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.09	< 0.02	0.04	0.15	< 1	< 1	3	4	0.06	< 0.04	0.04	0.1
CS 9-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.03	< 0.02	0.01	< 0.05	< 1	< 1	2	< 4	0.06	< 0.04	0.03	0.1
CS 9-1 55-61cm	0.05	< 0.02	< 0.01	0.06	2.51	0.31	0.32	3.13	7	2	3	12	< 0.04	< 0.04	< 0.02	< 0.1
CS 11-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.04	< 0.02	0.02	0.07	< 1	< 1	3	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 11-1 44-47cm	0.09	< 0.02	0.02	0.12	4.56	0.37	0.62	5.55	18	4	25	46	0.06	< 0.04	0.06	0.1
CS 13-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	0.04	< 0.02	0.01	0.06	1	< 1	< 2	< 4	0.20	0.06	0.07	0.3
CS 13-1 45-49cm	0.03	< 0.02	< 0.01	< 0.05	0.19	0.05	0.16	0.40	8	2	4	14	0.05	< 0.04	0.03	< 0.1
CS 17-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	0.04	< 0.02	0.04	0.08	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 17-1B 70-75 cm	0.05	< 0.02	0.02	0.07	1.55	0.23	0.43	2.21	13	3	11	27	0.05	< 0.04	0.05	0.1
CS 19-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.03	0.08	< 1	< 1	< 2	< 4	0.06	< 0.04	< 0.02	< 0.1
CS 19-1 59-64cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.05	0.11	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 21-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.07	< 0.02	0.03	0.10	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 21-1 59-62cm	< 0.02	< 0.02	0.01	< 0.05	0.31	0.06	0.22	0.59	3	< 1	4	8	< 0.04	< 0.04	< 0.02	< 0.1
CS 21-1 89-94cm	< 0.02	< 0.02	< 0.01	< 0.05	0.62	0.14	0.29	1.04	12	3	6	22	< 0.04	< 0.04	< 0.02	< 0.1
CS 23-1 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.09	< 0.02	0.01	0.11	< 1	< 1	< 2	< 4	0.04	< 0.04	< 0.02	< 0.1
CS 25-1A 0-10cm	< 0.02	< 0.02	< 0.01	< 0.05	0.06	< 0.02	0.02	0.09	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 25-1 23-28cm	< 0.02	< 0.02	< 0.01	< 0.05	0.10	< 0.02	0.06	0.17	1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 25-1 58-63cm	< 0.02	< 0.02	< 0.01	< 0.05	0.33	0.06	0.14	0.53	2	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 27-1 0-5cm	< 0.02	< 0.02	< 0.01	< 0.05	0.07	< 0.02	0.03	0.11	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 27-1 56-66cm	< 0.02	< 0.02	< 0.01	< 0.05	0.48	0.11	0.25	0.83	3	1	2	7	< 0.04	< 0.04	< 0.02	< 0.1
CS 38-1 28-33cm	0.02	< 0.02	< 0.01	< 0.05	0.14	0.02	0.09	0.26	9	2	4	14	0.04	< 0.04	< 0.02	< 0.1
CS 38-1 38-43cm	0.05	< 0.02	0.02	0.07	0.42	0.08	0.31	0.80	10	2	11	23	0.05	< 0.04	0.06	0.2
CS 42-1 0-8cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.02	0.07	< 1	< 1	2	< 4	0.05	< 0.04	0.03	< 0.1
CS 42-1 48-53cm	0.02	< 0.02	< 0.01	< 0.05	0.18	0.04	0.13	0.35	13	3	3	19	< 0.04	< 0.04	< 0.02	< 0.1
CS 42-1 85-95cm	0.03	< 0.02	0.01	< 0.05	1.08	0.11	0.53	1.73	9	3	47	58	< 0.04	< 0.04	0.08	0.1
CS 46-1 10-20cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.04	0.10	< 1	< 1	3	< 4	0.05	< 0.04	0.02	< 0.1
CS 46-1 50-60cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.04	0.10	1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 46-1 97-107cm	< 0.02	< 0.02	< 0.01	< 0.05	0.39	0.07	0.14	0.60	10	3	5	17	< 0.04	< 0.04	< 0.02	< 0.1
CS 48-1 12-18cm	< 0.02	< 0.02	< 0.01	< 0.05	0.04	< 0.02	0.02	0.08	< 1	< 1	2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 48-1 100-105cm	< 0.02	< 0.02	< 0.01	< 0.05	0.20	0.03	0.09	0.33	6	1	2	9	< 0.04	< 0.04	< 0.02	< 0.1
CS 50-1 15-23cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.03	0.08	1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 50-1 64-74cm	< 0.02	< 0.02	< 0.01	< 0.05	0.06	< 0.02	0.04	0.10	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 50-1 104-114cm	< 0.02	< 0.02	< 0.01	< 0.05	0.26	0.05	0.11	0.42	5	1	2	8	< 0.04	< 0.04	< 0.02	< 0.1
CS 52-1 6-13cm	< 0.02	< 0.02	< 0.01	< 0.05	0.05	< 0.02	0.02	0.08	< 1	< 1	3	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 52-1 49-54cm	< 0.02	< 0.02	< 0.01	< 0.05	0.08	< 0.02	0.03	0.13	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 52-1 94-98cm	< 0.02	< 0.02	< 0.01	< 0.05	0.17	0.03	0.12	0.32	3	< 1	2	5	< 0.04	< 0.04	< 0.02	< 0.1
CS 54-1 10-23cm	< 0.02	< 0.02	< 0.01	< 0.05	0.04	< 0.02	0.03	0.07	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 56-1 13-18cm	< 0.02	< 0.02	< 0.01	< 0.05	0.07	< 0.02	0.03	0.10	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 56-1 48-53cm	< 0.02	< 0.02	< 0.01	< 0.05	0.09	< 0.02	0.04	0.15	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 58-1 10-22cm	< 0.02	< 0.02	< 0.01	< 0.05	0.04	< 0.02	0.02	0.07	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
REPEATS																
CS 1-1 0-10cm	< 0.02	< 0.02	0.02	< 0.05	3.11	0.38	0.51	4.00	17	2	12	31	0.06	< 0.04	< 0.02	< 0.1
CS 1-1 0-10cm REP	< 0.02	< 0.02	0.02	< 0.05	3.22	0.40	0.53	4.15	16	2	13	31	0.05	< 0.04	0.03	< 0.1
CS 17-1B 70-75 cm	0.05	< 0.02	0.02	0.07	1.55	0.23	0.43	2.21	13	3	11	27	0.05	< 0.04	0.05	0.1
CS 17-1B 70-75 cm	0.05	< 0.02	0.02	0.07	1.59	0.25	0.45	2.28	13	2	11	26	0.05	< 0.04	0.07	0.1
CS 25-1 23-28cm	< 0.02	< 0.02	< 0.01	< 0.05	0.10	< 0.02	0.06	0.17	1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 25-1 23-28cm REP	< 0.02	< 0.02	< 0.01	< 0.05	0.09	< 0.02	0.06	0.17	1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 38-1 38-43cm	0.05	< 0.02	0.02	0.07	0.42	0.08	0.31	0.80	10	2	11	23	0.05	< 0.04	0.06	0.2
CS 38-1 38-43cm REP	0.05	< 0.02	0.02	0.07	0.41	0.08	0.30	0.78	10	2	10	22	0.06	< 0.04	0.08	0.2
CS 52-1 49-54cm	< 0.02	< 0.02	< 0.01	< 0.05	0.08	< 0.02	0.03	0.13	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CS 52-1 49-54cm REP	< 0.02	< 0.02	< 0.01	< 0.05	0.08	< 0.02	0.04	0.13	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
CONTROLS																
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
BLANK	< 0.02	< 0.02	< 0.01	< 0.05	< 0.02	< 0.02	< 0.01	< 0.05	< 1	< 1	< 2	< 4	< 0.04	< 0.04	< 0.02	< 0.1
LKSD-4	0.17	< 0.02	0.04	0.23	24.42	2.20	3.10	29.72	11	2	18	32	0.14	0.06	0.17	0.4
LKSD-4	0.17	< 0.02	0.04	0.23	24.05	2.35	3.05	29.45	11	3	20	33	0.15	0.06	0.18	0.4
LKSD-4	0.17	< 0.02	0.04	0.23	24.69	2.05	3.18	29.93	11	2	19	32	0.16	0.13	0.18	0.5

Provisional Values

	Y	Y	Y	Y	Yb	Yb	Yb	Yb	Zn	Zn	Zn	Zn	Zr	Zr	Zr	Zr
	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM	0.1M Na4P2O7	0.1M Na4P2O7	Aqua Regia	SUM
	1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.			1st 1hr.	2nd 1hr.		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	0.04	0.04	0.02	0.1	0.02	0.02	0.01	0.05	2	2	1	5	0.2	0.2	0.1	0.5
CS 1-1 0-10cm	1.41	0.35	1.83	3.6	0.09	0.02	0.14	0.25	< 2	< 2	10	13	3.0	0.9	1.2	5.1
CS 5-1 0-10cm	0.49	0.07	0.16	0.7	0.04	< 0.02	0.01	0.06	46	6	10	62	0.6	< 0.2	0.7	1.5
CS 9-1 0-10cm	0.24	0.04	0.08	0.4	< 0.02	< 0.02	< 0.01	< 0.05	60	11	10	82	< 0.2	0.5	0.2	0.9
CS 9-1 55-61cm	4.03	0.45	0.60	5.1	0.30	0.04	0.05	0.38	9	< 2	4	13	5.2	1.3	0.5	7.0
CS 11-1 0-10cm	0.37	0.07	0.09	0.5	0.03	< 0.02	< 0.01	< 0.05	55	6	5	66	0.4	< 0.2	0.2	0.7
CS 11-1 44-47cm	7.48	0.54	2.04	10.1	0.57	0.05	0.14	0.76	5	< 2	35	43	10.5	3.0	1.5	15.0
CS 13-1 0-5cm	0.29	0.04	0.07	0.4	0.02	< 0.02	< 0.01	< 0.05	37	11	13	61	0.4	< 0.2	0.2	0.7
CS 13-1 45-49cm	2.42	0.38	0.75	3.5	0.18	0.03	0.06	0.27	18	< 2	7	27	3.2	1.5	1.0	5.8
CS 17-1 0-5cm	0.29	< 0.04	0.09	0.4	0.02	< 0.02	< 0.01	< 0.05	23	2	4	29	< 0.2	< 0.2	0.2	< 0.5
CS 17-1B 70-75 cm	3.70	0.42	1.34	5.5	0.29	0.04	0.10	0.44	< 2	< 2	16	19	8.2	3.0	1.1	12.3
CS 19-1 0-10cm	0.39	0.06	0.14	0.6	0.03	< 0.02	< 0.01	< 0.05	58	8	16	82	0.5	0.3	0.3	1.0
CS 19-1 59-64cm	0.25	< 0.04	0.07	0.3	< 0.02	< 0.02	< 0.01	< 0.05	10	< 2	3	14	0.2	< 0.2	0.1	0.5
CS 21-1 0-10cm	0.46	0.08	0.21	0.8	0.04	< 0.02	0.02	0.06	82	12	21	115	0.8	0.4	0.4	1.5
CS 21-1 59-62cm	0.75	0.08	0.98	1.8	0.06	< 0.02	0.07	0.14	14	< 2	7	22	0.8	0.4	0.3	1.5
CS 21-1 89-94cm	1.38	0.19	0.38	2.0	0.11	< 0.02	0.03	0.16	12	< 2	6	19	1.9	1.2	0.7	3.8
CS 23-1 0-10cm	0.34	0.06	0.08	0.5	0.03	< 0.02	< 0.01	< 0.05	33	53	39	126	0.4	< 0.2	0.1	0.7
CS 25-1A 0-10cm	0.36	0.06	0.10	0.5	0.03	< 0.02	< 0.01	< 0.05	51	7	9	68	0.3	< 0.2	0.2	0.7
CS 25-1 23-28cm	0.41	0.06	0.12	0.6	0.04	< 0.02	< 0.01	0.05	5	< 2	4	10	0.9	0.5	0.2	1.5
CS 25-1 58-63cm	0.65	0.08	0.14	0.9	0.06	< 0.02	0.01	0.08	< 2	< 2	3	< 5	1.2	0.6	0.3	2.1
CS 27-1 0-5cm	0.33	0.07	0.20	0.6	0.03	< 0.02	0.01	< 0.05	49	8	9	66	0.5	< 0.2	0.9	1.6
CS 27-1 56-66cm	0.72	0.11	0.39	1.2	0.07	< 0.02	0.04	0.11	16	< 2	5	22	1.3	0.8	0.8	2.9
CS 38-1 28-33cm	2.05	0.30	0.41	2.8	0.16	0.03	0.03	0.22	15	< 2	5	22	1.9	1.1	0.7	3.7
CS 38-1 38-43cm	3.70	0.54	1.45	5.7	0.30	0.05	0.11	0.46	8	< 2	15	24	5.8	2.7	1.3	9.7
CS 42-1 0-8cm	0.35	0.06	0.08	0.5	0.03	< 0.02	< 0.01	< 0.05	45	6	8	60	0.4	< 0.2	0.2	0.7
CS 42-1 48-53cm	1.68	0.22	0.32	2.2	0.15	0.02	0.03	0.20	< 2	< 2	3	< 5	3.0	1.6	0.6	5.2
CS 42-1 85-95cm	2.67	0.24	1.43	4.3	0.22	0.02	0.06	0.30	5	< 2	33	39	4.9	1.3	1.3	7.6
CS 46-1 10-20cm	0.43	0.05	0.18	0.7	0.03	< 0.02	0.01	0.05	36	5	15	56	0.6	0.3	0.3	1.2
CS 46-1 50-60cm	0.29	< 0.04	0.08	0.4	0.02	< 0.02	< 0.01	< 0.05	3	< 2	4	7	0.4	0.3	0.2	0.9
CS 46-1 97-107cm	1.23	0.13	0.22	1.6	0.10	< 0.02	0.02	0.13	< 2	< 2	3	6	1.9	0.8	0.4	3.1
CS 48-1 12-18cm	0.39	0.06	0.11	0.6	0.03	< 0.02	< 0.01	< 0.05	49	6	10	65	0.3	< 0.2	0.2	0.7
CS 48-1 100-105cm	1.06	0.12	0.18	1.4	0.09	< 0.02	0.01	0.11	< 2	< 2	2	< 5	1.3	0.7	0.3	2.3
CS 50-1 15-23cm	0.48	0.07	0.16	0.7	0.04	< 0.02	0.01	0.05	43	6	13	62	0.4	0.2	0.3	0.9
CS 50-1 64-74cm	0.27	< 0.04	0.06	0.4	0.02	< 0.02	< 0.01	< 0.05	3	< 2	3	6	0.3	< 0.2	0.2	0.7
CS 50-1 104-114cm	0.86	0.09	0.14	1.1	0.06	< 0.02	< 0.01	0.08	< 2	< 2	3	< 5	1.4	0.5	0.2	2.1
CS 52-1 6-13cm	0.46	0.08	0.15	0.7	0.04	< 0.02	0.01	0.06	40	6	13	58	0.5	0.2	0.2	0.9
CS 52-1 49-54cm	0.28	< 0.04	0.06	0.4	0.03	< 0.02	< 0.01	< 0.05	< 2	< 2	4	6	0.4	0.3	0.2	0.9
CS 52-1 94-98cm	0.59	0.07	0.15	0.8	0.05	< 0.02	0.01	0.07	< 2	< 2	4	6	1.4	0.6	0.4	2.3
CS 54-1 10-23cm	0.25	< 0.04	0.09	0.4	< 0.02	< 0.02	< 0.01	< 0.05	15	< 2	6	23	0.3	< 0.2	0.7	1.2
CS 56-1 13-18cm	0.57	0.08	0.15	0.8	0.05	< 0.02	0.01	0.06	35	10	46	91	0.6	< 0.2	0.4	1.2
CS 56-1 48-53cm	0.35	0.04	0.08	0.5	0.03	< 0.02	< 0.01	< 0.05	< 2	< 2	2	< 5	0.5	0.3	0.3	1.0
CS 58-1 10-22cm	0.36	0.07	0.11	0.6	0.03	< 0.02	< 0.01	< 0.05	68	11	30	108	0.4	< 0.2	0.2	0.7
REPEATS																
CS 1-1 0-10cm	1.41	0.35	1.83	3.6	0.09	0.02	0.14	0.25	< 2	< 2	10	13	3.0	0.9	1.2	5.1
CS 1-1 0-10cm REP	1.38	0.36	1.86	3.6	0.10	0.02	0.14	0.26	< 2	< 2	11	13	3.0	0.9	1.3	5.2
CS 17-1B 70-75 cm	3.70	0.42	1.34	5.5	0.29	0.04	0.10	0.44	< 2	< 2	16	19	8.2	3.0	1.1	12.3
CS 17-1B 70-75 cm	3.72	0.43	1.38	5.5	0.30	0.04	0.10	0.45	< 2	< 2	17	19	8.4	3.1	1.2	12.7
CS 25-1 23-28cm	0.41	0.06	0.12	0.6	0.04	< 0.02	< 0.01	0.05	5	< 2	4	10	0.9	0.5	0.2	1.5
CS 25-1 23-28cm REP	0.40	0.06	0.13	0.6	0.03	< 0.02	0.01	< 0.05	4	< 2	5	10	0.9	0.5	0.2	1.6
CS 38-1 38-43cm	3.70	0.54	1.45	5.7	0.30	0.05	0.11	0.46	8	< 2	15	24	5.8	2.7	1.3	9.7
CS 38-1 38-43cm REP	3.63	0.53	1.42	5.6	0.29	0.05	0.11	0.45	8	< 2	14	23	5.7	2.7	1.2	9.7
CS 52-1 49-54cm	0.28	< 0.04	0.06	0.4	0.03	< 0.02	< 0.01	< 0.05	< 2	< 2	4	6	0.4	0.3	0.2	0.9
CS 52-1 49-54cm REP	0.27	< 0.04	0.06	0.4	0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	4	6	0.4	0.2	0.2	0.8
CONTROLS																
BLANK	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 1	< 5	< 0.2	< 0.2	< 0.1	< 0.5
BLANK	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 1	< 5	< 0.2	< 0.2	< 0.1	< 0.5
BLANK	< 0.04	< 0.04	< 0.02	< 0.1	< 0.02	< 0.02	< 0.01	< 0.05	< 2	< 2	< 1	< 5	< 0.2	< 0.2	< 0.1	< 0.5
LKSD-4	12.55	1.22	3.02	16.8	1.15	0.12	0.27	1.54	72	14	95	180	2.9	0.5	0.5	3.9
LKSD-4	12.34	1.29	3.15	16.8	1.13	0.12	0.28	1.53	70	14	96	180	2.9	0.6	0.6	4.0
LKSD-4	12.57	1.22	2.99	16.8	1.16	0.11	0.26	1.53	71	15	93	179	2.9	0.5	0.4	3.8
Provisional Values												174 ± 7				

Appendix 7: Mg Leach Results